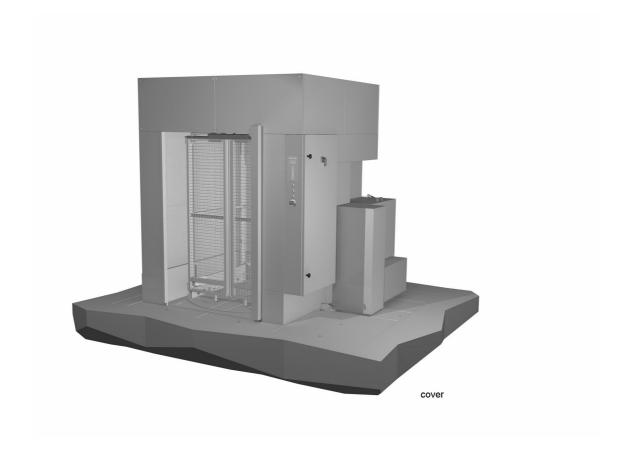


TROLLEY DISHWASHER WD-18CW

(translation of the original documentation)

Installation and user manual



Valid from:15. 06. 2011

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1. General information

Read the instructions in this manual carefully as they contain important information regarding the correct, effective and safe installation, use and servicing of the dishwasher.

Keep this manual in a safe place so that it can be used by other operators of the dishwasher.

The electronics in the machine are RoHS compatible.

1.1 Symbols used in this manual



This symbol warns of situations where a safety risk may arise. The instructions given should be followed in order to prevent injury.



This symbol on a component is a warning of electrical equipment. The machine is sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics.



This symbol explains the correct way to perform a task in order to prevent poor results, damage to the dishwasher or hazardous situations.



This symbol identifies recommendations and hints to help you to get the best performance from the machine.



This symbol explains the importance of careful and regular cleaning of the machine to meet hygiene requirements.

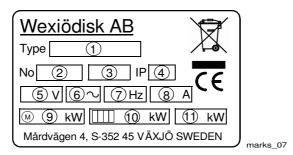
1.2 Symbols on the dishwasher



This symbol on a component is a warning of electrical equipment. The component may only be removed by a qualified electrician. The machine is sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics.

1.2.1 Machine marking

The machine has two rating plates, one of which is placed at the bottom of one side of the machine and the other in the electrical cabinet. The technical information on the plates is also included on the machine's wiring diagram. The various rating fields show:



- 1. Machine type
- 2. Machine serial number
- 3. Year of manufacture
- 4. Enclosure protection class
- 5. Voltage
- 6. Number of phases with or without zero
- 7. Frequency
- 8. Main fuse
- 9. Motor output
- 10. Electrical heating output
- 11. Max. output

1.3 Checking that the machine and the manual correspond

Check that the type description on the rating plate corresponds with the type description on the front of the manual. If manuals are missing, it is possible to order new ones from the manufacturer or the local distributor. When ordering new manuals, it is important to quote the machine number found on the rating plates.

2. Safety instructions

2.1 General information

The machine is CE marked, which means that it complies with the requirements of the EU machinery directive with regard to product safety. Product safety means that the design of the machine will prevent personal injury or damage to property.



Modifying the equipment without the approval of the manufacturer invalidates the manufacturer's product liability.

To further improve safety during installation, operation and servicing, the operator and the personnel responsible for installing and servicing the machine should read the safety instructions carefully.



Switch off the machine immediately in the event of a fault or malfunction. The machine must only be serviced by trained engineers. The regular checks described in the manual must be carried out in accordance with the instructions. The machine must be serviced by a person authorised to do so by the manufacturer. Use original spare parts. Contact an authorised service company to draw up a programme of preventative maintenance. Dangerous situations may arise if the instructions above are not followed.

Before using the machine, ensure that personnel are given the necessary training in operating and maintaining the machine.

2.2 Transport



Handle the machine with care during unloading and transport to avoid the risk of it tipping over. Never lift or move the machine without using the wooden packaging to support the stand.

2.3 Installation



This symbol on a component is a warning of electrical equipment. The machine is sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics.



Water and steam pipes must only be connected by authorised personnel.

ter and steam connections before operating the machine.

Air, water and steam pipes must be connected in a way that complies with the current regulations of the local water supply authority. Check the tightness of the wa-

Make sure that the mains voltage is the same as that indicated on the machine's rating plate. The machine should be connected to a lockable mains switch.

2.4 Detergent and drying agent



Only detergent and drying agent intended for industrial dishwashing machines must be used. Ordinary washing-up liquid must not be used in the machine or for soaking. Contact your detergent supplier regarding the choice of a suitable detergent.



Be aware of the risk of handling washing and drying agents. Protective gloves and safety glasses should be used when handling dishwasher detergent. Read the warning text on the detergent and drying agent containers as well as the detergent supplier's regulations.

2.5 Operation

2.5.1 Hot water



The temperature of the wash and rinse water is 60° C and 85° C. Do not open the doors until the wash and rinse phases have finished.

2.5.2 Crushing risk



Avoid touching the doors when they are moving. Keep clear of the machine's locking arms when loading and unloading the machine.

2.6 Cleaning



The temperature of the water in the tank is approx. $60 \,^{\circ}$ C and the water contains detergent. Be careful when draining and cleaning the tank. Use protective gloves.

2.6.1 Pressure washing



The machine must not be cleaned with a pressure washer. If pressurised water is directed at the electrical cabinet, the water may penetrate the cabinet and damage the electrical equipment, which may affect the safety of the machine.

In order to satisfy current requirements, electrical components of approved enclosure classes are used. There is no enclosure class capable of withstanding high pressure.

2.6.2 The outside of the machine



Pressure washers and hoses must not be used to wash the outside of the machine. Water can penetrate into the electrical cabinet and the control panel and damage the equipment, which may affect the safety of the machine.

2.6.3 Cleaning the floor



When the floor is being cleaned using a pressure washer, water can splash up under the machine and damage the components. These have not been designed to withstand being washed with water. Never use a pressure washer to clean the floor within 1 metre of the dishwasher without the special protective covers that are available to prevent splashing. Problems with splashing can also occur when using ordinary hoses.

2.7 Repairing and servicing the dishwasher



Disconnect the power supply before removing the front panel. Avoid touching hot pipes and the booster heater.

2.7.1 Safety instructions if the machine is not functioning



Check the following:

- Has the machine been used according to the instructions?
- Are all the removable parts in the correct place?
- Is the mains switch in the ON position?
- Are the fuses in the electrical cabinet undamaged? Ask the service personnel to check the fuses.

If this does not solve the problem, ask authorised service personnel to check the machine.

2.8 Recycling the machine



When the dishwasher has reached the end of its service life, it must be recycled in accordance with current regulations. Contact professionals who specialise in recycling.

3. Installation

3.1 General information



The machine must be installed by authorised personnel only.

Read these instructions carefully as they contain important information about the correct installation method.

The instructions should be used together with the machine's wiring diagram and flow diagrams for water and steam.



The machine is CE marked. The CE mark is only valid for machines that have not been modified. If the machine is damaged as a result of the instructions not being followed, this invalidates the supplier's warranty and product liability.

3.2 Requirements for the installation site

3.2.1 Lighting

In order to ensure the best possible working conditions during installation, operation, servicing and maintenance, make sure that the machine is installed in a welllit room.

3.2.2 Ventilation

The machine produces heat and steam when in operation. In order to ensure the best possible working conditions, a certain air change rate is required in the dishwashing room. The ventilation requirements for the room are dimensioned as per applicable standars.

3.2.3 Drains

There must be a floor drain for the machine's waste water and for water used for cleaning. The drain should be located under the machine's loading bench. The floor drain capacity can be found in the TECHNICAL SPECIFICATIONS.

3.2.4 Space for servicing

A 1-metre area should be left clear in front of the machine for servicing purposes. The area above the machine must not contain any equipment which could prevent the fitting, servicing and replacement of parts.

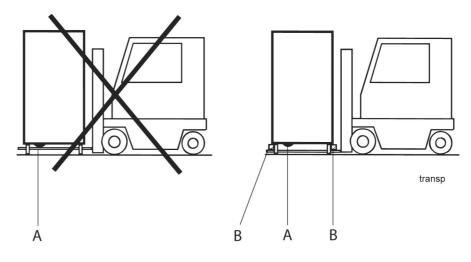
3.3 Transport and storage

Always transport the machine in an upright position.



Take care during transport, as there is a risk of the machine tipping over.

NOTE: The machine must not be transported without a pallet or other support. Some form of support beam must always be used along the sides of the machine during transport. otherwise the machine may be damaged. When transporting the machine without a normal wooden pallet, always check that none of the components underneath the machine can be damaged.



A=Pumps B=Spacers

If the machine is not being installed immediately, it must be stored in a frost-free area where the air is dry.

3.4 Preparing for the installation

The machine supplied with a height for transport purposes of 2750 mm.

Check that there is sufficient height available to transport the machine to its installation site.

The machine can also be supplied in two parts of the following sizes (LxWxH), if necessary, delivered in smaller components.

- 1. 2,6x2,0x2,25m
- 2. 1,9x2,05x0,8m



Check that the overheating protection on the booster heater and the tank element are set to zero.

3.5 Unpacking

Check against the delivery note that all the units have been delivered.

Remove the packing material. Inspect the machine for any transport damage.

3.6 Recycling the packaging



Packaging must be disposed of or recycled in accordance with local regulations.

3.7 Installation

Parts which must be assembled are prepacked inside each machine section, together with the necessary bolts, nuts etc.

There are two installation options for the machine: free-standing in the room (1 door) or with a clean and dirty side (2 doors).

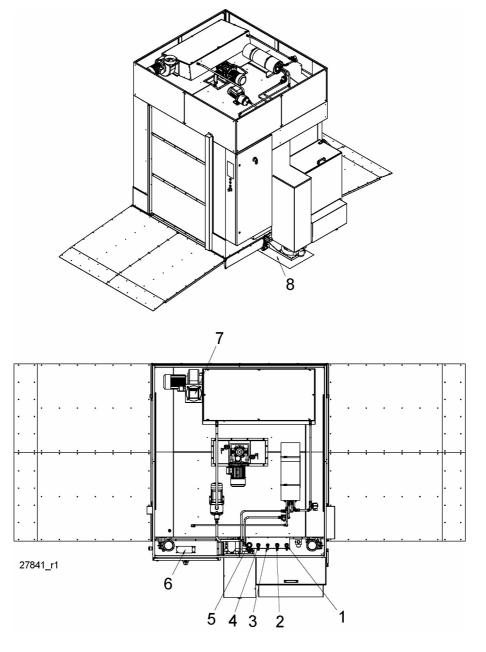
The machine can also be installed on the floor or recessed into it.

3.7.1 Positioning the machine

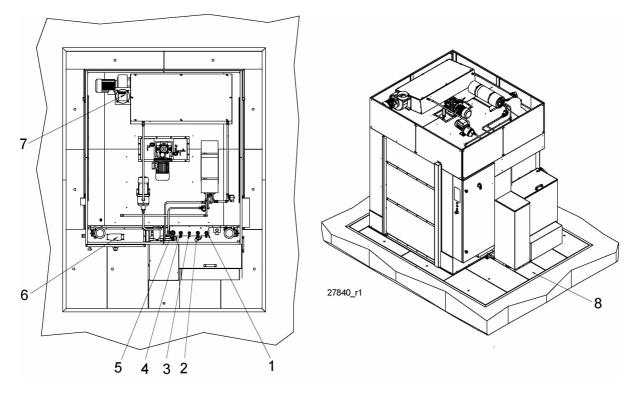
Put the machine in position and check that it is horizontal using a spirit level.

3.8 Connections

3.8.1 The machine installed on the floor



- 1. Hot water connection
- 2. Cold water connection
- 3. Compressed air connection
- 4. Condensation connection (option)
- 5. Steam connection (option)
- 6. Electrical connection
- 7. Ventilation connection
- 8. Floor drain



3.8.2 The machine recessed into the floor

- 1. Hot water connection
- 2. Cold water connection
- 3. Compressed air connection
- 4. Condensation connection (option)
- 5. Steam connection (option)
- 6. Electrical connection
- 7. Ventilation connection
- 8. Floor drain

3.8.3 Electrical connection



This symbol on a component is a warning of electrical equipment. The part may only be removed by a qualified electrician or trained personnel.

Information about electrical connections can be found on the machine's wiring diagrams. The wiring diagrams are inside the electrical cabinet door. Store the diagrams in the electrical cabinet after installation.



The machine has a built-in mains switch.

The machine is equipped with a phase sequence detector. The machine will not start if the phase sequence is incorrect. If the phase sequence is incorrect, the display will show POWER SUPPLY FAILURE CHECK EMERGENCY SWITCH.

There is a bushing for the electric cable at (6).

3.8.4 Water connection

Connect the cold and hot water pipes according to the labels by the connection points (1, 2). If the machine is connected to a hose, the internal diameter of the hose must be at least 12 mm.

The hot water connection is fitted with a filter. The cold water connection is fitted with a filter, non-return valve and vacuum valve. The connections have an internal thread.



A stopcock must be installed on the water supply pipes.

It is important that the water supply has sufficient pressure to ensure the correct flow of water to the machine. The required pressure can be found in the TECH-NICAL SPECIFICATIONS.

3.8.5 Compressed air connection

It is important that the air supply has sufficient pressure to ensure that the air entering the machine is at the correct pressure (3). The required pressure can be found in the TECHNICAL SPECIFICATIONS.

3.8.6 Steam connection (option)

The steam connection (5) is fitted with a shut-off valve and filter. When connecting a pipe from the ceiling, it is taken into the same area as the water pipes behind the cover plate next to the electrical cabinet. The required steam pressure can be found in the TECHNICAL SPECIFICATIONS.

3.8.7 Condensation connection (option)

A condensation connection (4) is only provided on steam-heated machines. The pipe is connected to the system's steam boiler.

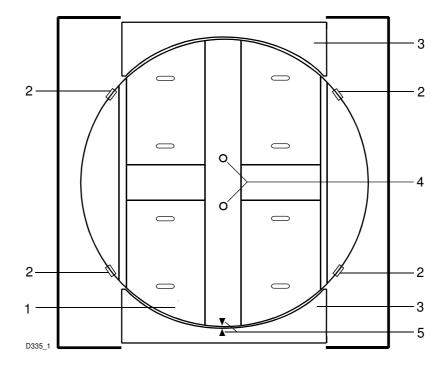
3.8.8 Drain connection

The waste water system must have 50 mm metal pipes that will withstand collision or 50 mm plastic pipes. The waste water pipe must be connected to a floor drain and the opening of the pipe must be above the water level. The capacity of the floor drain (8) must be 3 litres/second.

3.8.9 Ventilation

The machine has a ventilation connection (7) which allows an external ventilation duct to be connected. The connection to the ventilation system is made using a strain-relief grip.

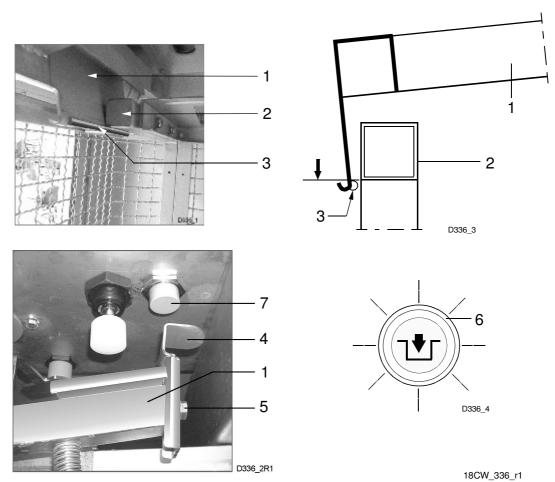
3.9 Adjusting the rotation table



Floor of the machine showing rotation table and floor plates

- 1. Rotation table
- 2. Support rollers
- 3. Sill plate
- 4. Location of support legs
- 5. Rotation table start position markers
- After installing the machine, the rotation table (1) needs to be adjusted to the correct level. This is done using the two support legs located under the machine at (4).
- If the machine is mounted on a stand, check that the stand is adjusted to the correct height and that the machine is horizontal.
- Check that both sill plates (3) are in place.
- The rotation table (1) must be in its start position. The markers (5) on the rotation table and sill plate must be exactly aligned.
- Adjust the support legs though both holes at (4). There is a nut welded to the top of each leg. Use a ratchet spanner to adjust the legs to the correct position. Turn to the right to screw the legs downwards and to the left to screw them upwards. Screwing the legs to the right or left raises or lowers the rotation table.
- Check under the machine to ensure that the legs are touching the floor. If the machine is recessed into the floor, remove the cover plates around the machine to check the legs.
- If the rotation table (1) is adjusted to the correct position, the top of the rotation table should be at the same level as the top of both the sill plates (3). In this position, the rotation table should not be resting on the four support rollers (2).

3.10 Adjusting the locking arms



The control button (6) must be switched on in exactly the right position.

- 1. Locking arm
- 2. Upper gate bar
- 3. Circular rod, Ø 6 mm
- 4. Sensor plate
- 5. Screw
- 6. Locking arm control button
- 7. Inductive sensor



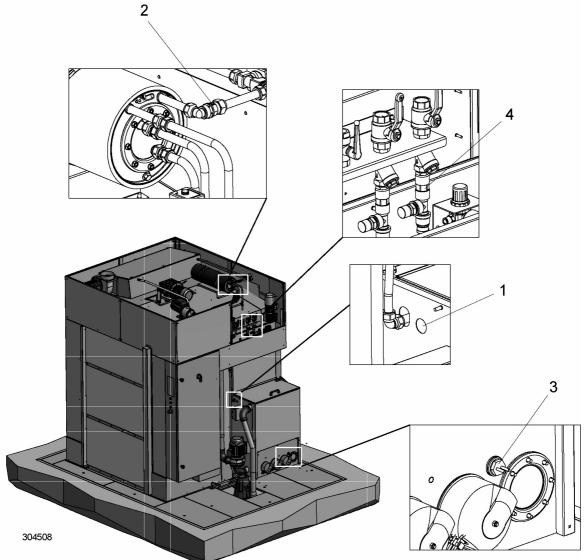
It is important to adjust the locking arms (1) to avoid the machine from being started without the gates having been locked.

- Power to the controls needs to be on to make adjustments.
- Close the gates.
- Pull the locking arm (1) down. When the upper edge of the circular rod (3) is level with the underside of the upper gate bar (2), switch on the locking arm control button (6) on the panel. If the control button does not switch on in this position, the sensor plate (4) needs to be adjusted.
- Undo the screw (5) and move the sensor plate (4) up or down. Continually check whether the control button (6) switches on in exactly the right position by pulling the locking arms down.
- If the machine has doors on both sides, adjust both locking arms.

3.11 Installing detergent and drying agent equipment

The machine comes ready for fitting detergent and drying agent equipment, but this is not included with the machine.

To avoid making unnecessary holes in the machine, the equipment should be placed on the wall behind the machine on the outfeed side.



Connecting detergent and drying agent

- 1. Plugged connection for the hose for solid detergent.
- 2. Drying agent dosage outlet
- 3. Measuring cell for measuring the concentration of detergent in the chemical tank.
- 4. Water outlet for detergent dosing

3.11.1 Electrical connection of the equipment

Contact a suitable supplier to arrange for the equipment to be installed.

3.11.2 Detergent dosing system

- The water outlet for the detergent dosing system is on the incoming hot water pipe.
- The equipment for solid detergent is connected at (1).
- (3) is the measuring cell for measuring the concentration of detergent.

3.11.3 Drying agent dosing system

The connection for drying agent (2) is located next to the booster heaters.

3.12 Trial operation

Prepare the machine for trial operation by following the INSTRUCTIONS FOR USE. The instructions describe the measures that must be taken to prepare the machine for operation.

3.12.1 Start-up schedule

This should be completed and signed by the customer on start-up.

Machine type:

Machine serial number:

Installation date:

Customer:
Postal address:
Telephone:
Contact:
Dealer:
Telephone:
Contact:
Installation company:
Telephone:
Contact:
Service company:
Telephone:
Detergent supplier:
Telephone:
End user's signature:
Name in block capitals:

Read the installation and user manuals carefully. Then check the following points:

1. Check:

- Air, water and drain connections.
- Check that the sensors for the locking arms have been adjusted correctly. NOTE! They must only indicate locked when the gates have been locked correctly.
- Check the locking function of the gates.
- That the machine is evenly balanced.
- Detergent and drying agent.
- That the pump filters, level pipe and tank filter are in position.
- That the FU21, FU41 and FU42 mini-switches are in the off position.
- The machine is connected with the correct phase sequence. NOTE! The machine will not start if the phase sequence is incorrect. If the phase sequence is incorrect, the display will show POWER SUPPLY FAILURE CHECK EMERGENCY SWITCH.
- The pump's direction of rotation. NOTE: If the direction of rotation is wrong, the phase must be inverted on the terminal block for the incoming electrical cable.
- The overheating protection on the booster heater and the tank element are set to zero.

2. Filling the machine:

- Turn on the power switch.
- Close the doors.
- Fill the machine with water in accordance with the instructions.
- When "HEATING IN PROGRESS TEMPERATURE IN TANK" appears on the display, FU21, FU41 and FU42 are switched on.
- 3. Check the setting of the reference values:
- All the reference values are set to the recommended values on delivery.
- 4. Run a number of washes complete with loads and check that:
- There are no water leaks.
- The switch for the doors works.
- The water temperatures are maintained.
- The washed items are clean.
- The washed items are dried.
- There is an adequate water flow to the machine. Recommended setting: 6 I/wash cycle Flow: 30 I/min. This can be checked in the machine's reference values and diagnostics function.

5. Final check: Empty the machine and turn off the power using the power switch.

- Re-tighten all the connections on the circuit breakers and relays.
- Set all the circuit breakers to the on position
- Inform the customer if the water flow and the water pressure are too low.
- Display the maintenance instructions supplied with the machine.

6. Train the dishwashing staff

3.13 Technical documentation



To ensure that the machine is used correctly, it is essential that the documentation supplied with the machine is made available to the staff who will be using the machine. The installation and user manuals should be kept near the machine.

If the service manual is supplied with the machine, it should be given to the service engineer who is responsible for the machine.

If the spare parts manual is supplied with the machine, it should be given to the service engineer who is responsible for the machine.

If the WEB Tool manual is supplied with the machine, it must be kept near the machine.

4. Instructions for use



All personnel using the machine must be given training in how the machine works by the person responsible for staff safety.

The dishwasher should not be used by anyone suffering from a physical or mental illness.

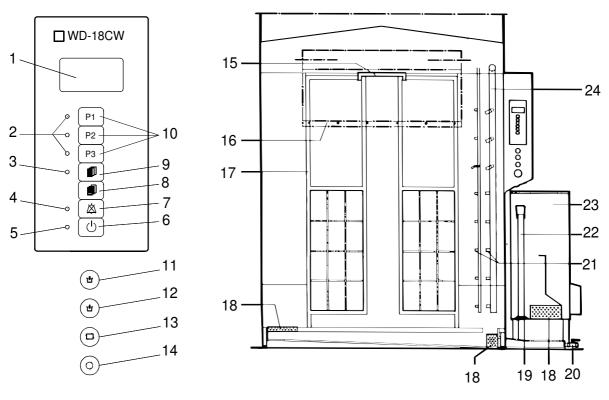
Children should be watched closely to ensure that they do not play with the machine.



Text messages appear on the machine's display which indicate what the machine is doing. The machine's reference values, which can be changed, and alarms of different types also appear on the display.

4.1 **Preparations**

4.1.1 The machine's design



18_02

- 1. Display
- 2. LEDs which indicate the choice of programme
- 3. LED which indicates that the diagnostics function is activated
- 4. LED for the alarm function (flashes in the case of an alarm that can be reset)
- 5. LED which lights when the power is switched on.
- 6. On/Off
- 7. Button for resetting alarm
- 8. Button for switching between diagnostic messages
- 9. Button for diagnostic messages
- 10. Buttons for selecting the programme
- 11. Control button for the rear locking arm (only on machines with double doors)
- 12. Control button for the front locking arm
- 13. Control button for the doors and for starting the wash process
- 14. Emergency stop
- 15. Locking arm
- 16. Door
- 17. Gate
- 18. Filter
- 19. Rubber sleeve
- 20. Drain tap
- 21. Nozzle
- 22. Level pipe
- 23. Tank
- 24. Wash arm

4.1.2 Preparations before filling

Check:

- that the machine has been cleaned and that the stopcocks on the water supply are open.
- that the mains switch and the circuit breakers are in position 1.
- that the rubber seal (19) is undamaged.
- the amount of detergent and drying agent.



NOTE: Ordinary washing-up liquid must not be used in the machine or for soaking. It causes foam to form and produces poor washing results.

Fit:

- the level pipe (22) and the filter (18). The rubber seal of the level pipe (19) must be sealed against the bottom plate.
- the filter (18)
- the drain tap (20) must be closed.

4.1.3 Filling the machine

- Press button (6) to switch on the power supply.
- Press one of the programme buttons P1, P2 or P3 (10).
- The machine will start to fill with water.
- Messages indicating the sequence of events appear on the display (1).



NOTE: It is not possible to close the doors if the locking arms are not locked.

NOTE: The time needed to heat the water to the right wash temperature depends on the temperature of the incoming water.

4.1.4 Positioning the items

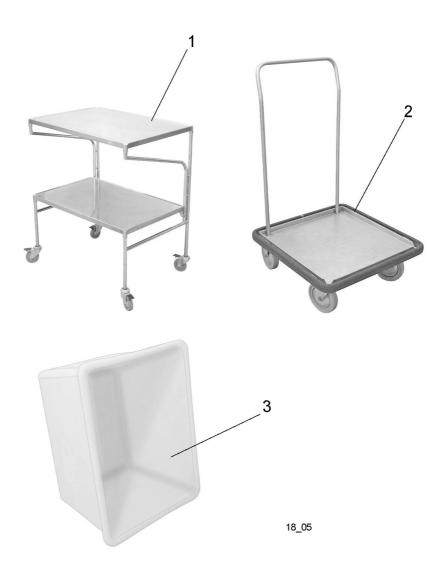


The dishware must not be soaked or pre-washed in washing up liquid.

Examples of the different types of cart and other items that can be washed. Note that carts and other wheeled items do not need to be secured. All you need to do is wheel the items in, close the gates, locking arms and doors to start the washing cycle.



1=Tray cart 2=Rack cart 3=Food transport cart 4=Transport cart



1=Table cart 2=Transport cart 3=Other item

4.2 Using the machine

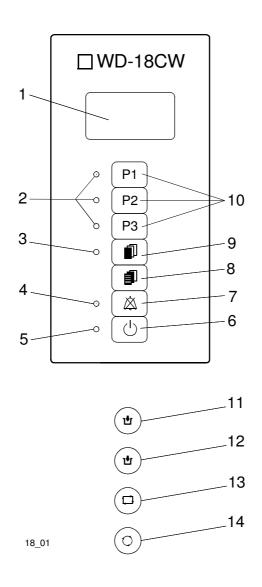
In the various stages of the wash cycle, the items rotate as follows:

- Washing, approx. 10 rpm
- Rinsing, approx. 13 rpm
- Spinning, approx. 45 rpm

4.2.1 Washing

Choosing the wash programme

The machine has six wash programmes (P1-P6) which can be selected using the three programme selection buttons (10) P1, P2 and P3. Each programme button can be used to select two programmes. By pressing a programme button repeatedly, you can switch between the two wash programmes and pause mode. LED (2) above the button is lit if the programme has been selected. If the LED is not lit, the machine is in pause mode.



If no wash programme has been selected (LED not lit), the machine is in pause mode and possible programme choices are shown on the display.

The programme buttons correspond to the following wash programmes:

- P1=Wash programmes P1 and P4. (Press P1 twice to access programme P4).
- P2=Wash programmes P2 and P5. (Press P2 twice to access programme P5).
- P3=Wash programmes P3 and P6. (Press P3 twice to access programme P6).

Wash programmes with a spin cycle

The display (1) shows which programme has been selected.

The programme times depend on the water pressure during the final rinse.

- P1=Programme time approx. 1,2 minutes. (Factory setting)
- P2=Programme time approx. 1,6 minutes. (Factory setting)
- P3=Programme time approx. 2,0 minutes. (Factory setting)

Wash programmes without a spin cycle

The display (1) shows which programme has been selected.

The programme times depend on the water pressure during the final rinse.

- P4=Programme time approx. 1,0 minutes. (Factory setting)
- P5=Programme time approx. 1,4 minutes. (Factory setting)
- P6=Programme time approx. 1,8 minutes. (Factory setting)

The programmes do not include a spin cycle.

A programme without a spin cycle should be used if the items being washed are for some reason not suitable for spinning, for example if the items cannot be fixed firmly in place.

4.2.2 Starting the wash programme - machine with a single door

- Push in the carts and close the gates (17). Lower the locking arms by pressing control button (12). Close the door by pressing control button (13).
- The wash programme starts when the door is closed. The door opens automatically around 10 seconds after the wash programme has finished.

4.2.3 Starting the wash programme - machine with double doors

- Lower the rear locking arm by pressing control button (11). Push in the carts and close the gates (17). Lower the front locking arm by pressing control button (12). Close the doors by pressing control button (13).
- The wash programme starts when the doors are closed. The doors open automatically around 10 seconds after the wash programme has finished.

4.2.4 Starting the wash programme - machine with a clean and dirty side

- When the carts are pushed in, the rear door must always be closed. Otherwise the procedure for loading and starting the machine is the same as for a machine with double doors.
- After the wash programme has finished, only the rear door opens. The carts are pulled out and the door is closed by pressing the control button on the rear of the machine next to the door. When the rear door is closed, the front door opens automatically and new carts can be loaded into the machine.

4.2.5 Guaranteed final rinse

The right amount of rinse water is always used for the final rinse and there is also the option of ensuring that the temperature of the final rinse water is always correct.

If the flow during the final rinse is too low, an alarm is displayed on the control panel. The alarm can also be set up to stop the machine. The factory setting is for an alarm only. If you need an alarm which stops the machine, the setting must be changed by a service engineer in the machine's software.

Optional: If the rinse temperature is too low, an alarm is triggered on the control panel. The machine continues washing until the right temperature is reached. However, the alarm can be reset in the meantime by pressing button (7) on the panel. The wash programme continues, but the machine will then rinse at a lower temperature. However, an alarm is displayed.

4.2.6 Checking the washed items



Always check the washing results.

4.2.7 Stopping the machine during operation

If the machine needs to be stopped during operation for some reason, press button (14) for an emergency stop.

Before the machine can be restarted, the emergency stop button (14) must be reset by turning it in the direction of the arrows. The alarm is reset by pressing button (7) and the doors open. The problem which caused the emergency stop must be rectified.

Turn the table manually to its rest position. The arrows on the table and the sill plate must be directly opposite one another.

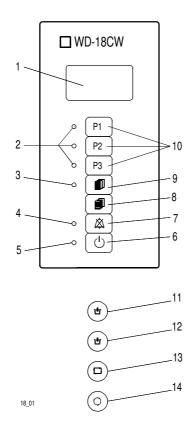
4.2.8 Changing the water

To achieve the best possible washing results, it is important that the water is changed frequently.

NOTE: The water in the wash tank must be changed regularly, otherwise foam will start to form and the washing results will deteriorate. If the filters are clogged with foam or if foam comes out of the waste pipe, the water must be changed immediately.



The machine has an alarm which indicates when the water is dirty and must be changed. The alarm is set off after a preset number of wash cycles. LED (4) flashes to indicate that the alarm has been activated. The alarm can be reset by pressing button (7). The machine can also be locked to prevent it from being used any further when the water change alarm is triggered. The setting must be changed by a service engineer in the machine's software.



Recommendations

- Change the water if a large amount of foam forms.
- If a large number of items need washing before lunch and relatively few during the afternoon, change the water directly after the lunchtime wash.
- If a large number of items need to be washed after breakfast and after lunch, change the water twice, both after breakfast and after lunch.

Changing the water

- When the doors are open, press button (6) to switch off the power supply.
- Take out the filter (18). Rinse it in water.
- Turn the level pipe (22) a quarter of a turn to empty the tanks.
- If necessary, remove the level pipe and rinse the wash tank with water. Refit the level pipe.
- Turn the level pipe back a quarter of a turn until the rubber seal (19) seals with the bottom plate.
- Replace the filter (18).
- Press buttons (6), (10) and then (13) to close the doors and start filling the machine.
- Messages indicating the sequence of events appear on the display (1).



Emptying the tank. Turning the level pipe a quarter of a turn.

Checking the wash nozzles

Check regularly that the wash arm nozzles (21) are not blocked. Remove the wash arms (24) and clean the nozzles if necessary.



To avoid the nozzles getting blocked, it is important to remove all pieces of food from the items to be washed before putting them in the machine.

4.3 After use – cleaning

HACCP

HACCP is a preventive inspection system which ensures that hygiene requirements are met during the washing process and the cleaning of the machine. As a result of its design, the machine meets strict hygiene requirements. Regular, thorough cleaning is also important from a hygiene perspective. Cleaning the machine carefully helps to ensure good washing results and reduces the risk of dirt accumulating inside the machine.

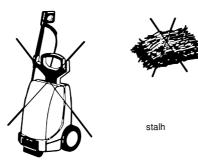
See the WEB Tool manual for the HACCP alarm options.

4.3.1 Daily cleaning



NOTE: The following applies when cleaning the machine:

- Do NOT use steel wool as it will cause corrosion to form in the machine.
- Pressure washers can damage the machine and must NOT be used for cleaning purposes. Never use a pressure washer to clean the floor within 1 metre of the dishwasher without the special protective covers that are available to prevent splashing. The supplier cannot be held liable for any faults caused by the use of pressure washers on the machine and any such use will invalidate the warranty.



Steel wool and pressure washers must not be used for cleaning.



There is a risk of splashing even if the floor is only hosed down.

Machine with a single door

- Clean the inside of the machine by running a wash programme with no items in the machine. Then close the machine by pressing button (6) to switch off the power supply. Check that the machine is clean.
- Empty the tank (23) by lifting and turning the level pipe (22) a quarter of a turn. When the tank is empty, take out the level pipe (22) and the filter (18) and clean them. Clean the tank. Open the drain tap (20), empty the water out of the machine and then close the tap.
- Check that the wash and rinse nozzles (21) are clean. The doors must always be left open.
- Once a week remove the wash arms (24) and rinse the inside of them.

Machine with double doors

Machines with double doors have a programme for cleaning the inside of the doors manually. Start by cleaning the doors and then clean and empty the machine.

- The machine must be in pause mode. No wash programme must be selected. Press the programme button with the lit LED (2) until the LED goes out.
- Press and hold the diagnostics button (9) for a few seconds until SET-POINTS - DIAGNOSIS - RELAY TEST - STATISTICS appears on the display. Press button (9). The cursor moves between the different options. Hold button (9) down until TIME & DATE - LANGUAGE - OTHER appears on the display. Move the cursor to OTHER.
- Press button (8). MANUAL CLEANING NO YES appears on the display. Hold button (8) down until the cursor moves to YES.
- Press button (13). One door closes. Clean the inside of the closed door. Press button (13) again to open the clean door and close the other door.
- Clean the inside of the closed door. Open the door using button (13) and leave both doors open.
- Exit the diagnostics function by pressing and holding down button (9) until LED (3) goes out.
- Turn off the machine. Press button (6).
- Clean the outer surfaces of the machine.
- Rinse the tank (23) with hot water.

Cleaning the outside of the machine

Wipe the outside of the machine with a soft, damp cloth.



If detergent is used, it must not contain abrasives. Detergents containing abrasives will damage the stainless steel panels.



The outside of the machine must not be hosed down. Water can enter the machine and damage the control panel and electrical equipment.

4.3.2 Periodic servicing

Long intervals between using the machine

If the machine is not being used for a long period, the machine should be disinfected with chlorine.



If the machine is not being used for a long period, cooking oil should be sprayed into the pump housings. The oil will prevent rust from forming in the pump housing and jamming the impeller. The cooking oil is sprayed into the pumps' inlet pipes. (This should be done by an authorised engineer.)

4.3.3 Operating problems

Troubleshooting

PROBLEM	CAUSE	ACTION
No indication on the control panel display when the control button is pressed.	The mains switch is off.	Turn on the mains switch.
The machine does not fill with water.	The stopcock on the incoming water supply is closed.	Open the stopcock.
The tanks overfill.	The level pipe is not in place.	Fit the level pipe.
	The level pipe's rubber sleeve is not sealing against the bottom plate.	Check that the level pipe is closed. Change the rubber sleeve if it is damaged.
The machine does not start washing.	The doors are not closed.	Close the doors.
The doors time out.	Object preventing one door from closing.	Remove the object.
Noise from the wash pump.	Low water level. Foam in the tank.	Check the level. Change the water.
The machine is not cleaning proper- ly.	The rinse and wash nozzles are clogged with dirt.	Check and clean the nozzles.
	There is too little detergent.	Check that there is sufficient deter- gent in the machine.
	The wrong wash programme.	Choose a programme with a longer washing time.
	The water in the tanks is too dirty.	Change the water.
	The removable parts are incorrectly fitted.	Fit the parts correctly.
The doors are sticking.	Detergent concentration too high.	Reduce the amount of detergent.
The washed items do not dry.	The rinse nozzles are blocked.	Check and clean the nozzles.

When you contact the service personnel, you will need to answer the following questions about the machine:

- machine type and model
- machine serial number and installation date
- short description of the fault/problem
- what happened/was being done immediately before the fault occurred

Machine faults and user errors

Machine faults and user errors are shown as messages on the display (1). The alarms indicated with a flashing LED (4) can be reset by pressing button (7) when the cause of the alarm has been rectified. Alarms that are indicated by the fact that LED (4) is lit but not flashing cannot be reset by the operator.

The following alarms can be resolved by the operator. For other alarms, or if an alarm which has been reset by pressing button (7) recurs, authorised service personnel must be called.

ALARM TEXT	ACTION
(61) EMERGENCY STOP ACTIVATED PRESS RESET	Reset the emergency stop button by turning it in the direction of the arrow. Then reset the alarm by pressing button (7).
(17) ROTATION ERROR ROTATING TABLE PRESS RESET	First turn the machine off and then on, so that the doors open. You can also wait until the programme has finished. Only the table stops rotating. The wash programme does not stop. Check that none of the items being washed have jammed the rotating table. Remove any items. Reset the alarm by pressing button (7).
(27) TIMEOUT WHEN OPENING DOOR ON DIRTY SIDE PRESS RESET	Check that nothing has become lodged in the slide bars of the doors. Reset the alarm by pressing button (7).
(28) TIMEOUT WHEN OPENING DOOR ON CLEAN SIDE PRESS RESET	Check that nothing has become lodged in the slide bars of the doors. Reset the alarm by pressing button (7).
(29) TIMEOUT WHEN CLOSING DOOR ON DIRTY SIDE PRESS RESET	Check that nothing is preventing the door from closing and that noth- ing has become lodged in the slide bars of the doors. Reset the alarm by pressing button (7).
(30) TIMEOUT WHEN CLOSING DOOR ON CLEAN SIDE PRESS RESET	Check that nothing is preventing the door from closing or that nothing has become lodged in the slide bars of the doors. Reset the alarm by pressing button (7).
(37) LOW FLOW DURING FINAL RINSE PRESS RESET	Reset the alarm by pressing button (7).
(38) HACCP ALARM NO FLOW DURING FINAL RINSE PRESS RESET	Check that the stopcocks on the incoming water supply are open. Reset the alarm by pressing button (7).
(40) HACCP ALARM FINAL RINSE DEFECT PRESS RESET	Check that the stopcocks on the incoming water supply are open. Reset the alarm by pressing button (7).
(42) TIMEOUT WHEN FILLING TANK PRESS RESET TO START FILLING AGAIN	Check that the stopcocks on the incoming water supply are open. Check that the level pipe (22) is closed and that the rubber seal (19) on the level pipe is sealing with the bottom plate. Reset the alarm by pressing button (7).
(43) TIMEOUT WHEN HEATING TANK PRESS RESET	Reset the alarm by pressing button (7).

ALARM TEXT	ACTION
(44) LOW TEMPERATURE IN TANK PRESS RESET	Reset the alarm by pressing button (7).
(48) HACCP ALARM HEATING OF BOILER DEFECT PRESS RESET	Reset the alarm by pressing button (7).
(57) EXTERNAL ALARM ACTIVATED PRESS RESET	Reset the alarm by pressing button (7).
(58) TIME TO CHANGE WATER IN TANK PRESS RESET	Change the water. Reset the alarm by pressing button (7).
(64) TIME FOR MAINTANANCE CONTACT:	Contact service personnel. Reset the alarm by pressing button (7).

5. Technical information

We reserve the right to be change technical data.

TECHNICAL DATA	
Washing pump (kW)	2,2
Return pump (kW)	1,2
Rotating table motor (kW)	0,55
Condensing fan (kW)	1,1
Drive motor for doors (kW)	2x0,18
Booster heater (kW)	12
Tank heater (kW)	36
Heat recovery, cooling surface (m ²)	51
Heat recovery fan, flow (m ³ /hour)	1000
Tank volume, (litres)	200
Weight, machine in operation (kg)	1450
Enclosure class (IP)	55

CAPACITY AND OPERATING DATA		
Total washing time programme 1 (min) *	1,2	
Total washing time programme 2 (min) *	1,6	
Total washing time programme 3 (min) *	2,0	
Total washing time programme 4 (min) *	1,0	
Total washing time programme 5 (min) *	1,4	
Total washing time programme 6 (min) *	1,8	
Max. size of items to be washed using standard fittings (mm)	H=1820 W=1070 L=1030	
Max. weight of items to be washed using standard fittings (kg)	250	
Rinsing water consumption/programme (litres)	6	
Compressed air consumption (litres/min)	50	
Steam consumption ** (kg/h)	90	
Surface temperature at a room temperature of 20 $^{\circ}$ C ($^{\circ}$ C)	35	
Noise level *** (dB(A))	65	

* Factory setting, the washing time can be adjusted

** When the machine is steam-heated

*** Measured 1 metre from the side of the machine

CONNECTION, ELECTRICALLY HEATED MACHINE	
Total connected power (kW)	52,5
Main fuse 400V 3N~(A) *	80
Max. connection area 400V 3N~ (L1-L3, N, PE) Cu (mm ²)	70

* Other voltages on request

CONNECTION, STEAM-HEATED MACHIN 150-250kPa **	
Total connected power (kW)	4,5
Main fuse 400V 3N~(A) *	20
Max. connection area 400V 3N~ (L1-L3, N, PE) Cu (mm ²)	35
Steam connection (internal thread)	R1¼
Condensing water connection (internal thread)	R ³ ⁄4

* Other voltages on request

** Other pressures available on request

WATER, DRAIN AND VENTILATION CONNECTIONS		
Water quality, hardness (°dH)	2-7	
Hot water connection 50-70°C (internal thread)	R3⁄4	
Cold water connection 5-12°C (internal thread)	R3⁄4	
Compressed air 600kPa (internal thread)	R1⁄2	
Drain connection, PP pipe (ø mm)	50	
Water capacity, cold water, pressure (kPa)	300	
Water capacity, cold water, flow (litres/minute)	30	
Water capacity, hot water, min/max pressure (kPa)	100/600	
Floor drain, capacity (litres/sec)	3	
Ventilation, connection (ø mm)	160	

SIZE AND WEIGHT FOR TRANSPORT	
Overall machine size *(LxWxH (m))	2,6x2,0x2,75
Overall machine weight * (kg)	1350
Size part 1* (LxWxH (m)) **	2,6x2,0x2,25
Size part 2* (LxWxH (m)) **	1,9x2,05x0,8
Weight part 1* (kg) **	850
Weight part 2* (kg) **	580

* Including packaging

** Delivery in 2 parts. If necessary, delivered in smaller components.



CE Declaration of Conformity

This declaration of conformity only refers to the machine/product in the condition in which it is supplied, not any additions or modifications made by the customer/user.

Manufacturer: Wexiödisk AB Mårdvägen 4 S-352 45 Växjö, Sweden Tel: +46 470 77 12 00 Fax: +46 470 237 52 **Representative:** Agroznanje doo, Bahraja General Trading, Dae Ryung Group Ltd, Elektroluks Serviz OOD, Fastus ehf, G2 Commersial Repair Ltd, Gastro Mach, KZB, Moffat Pty Ltd, M/s Aishwarya Consolidates Pvt Ltd, Martin Food Equipment Ltd, Nakanishi Mfg Co Ltd, QMB corporation, Rekal doo, Rhima Australia Pty Ltd, TPN Group, Wexiödisk UK

Compiler of technical documentation: Magnus Ericsson

Our machines are manufactured 2013 in accordance with applicable EU directives and we declare under sole responsibility that the following products:

Single tank-, Pot wash-, Tunnel- dishwashers with accessories: WD-4x, WD-6x, WD-7x, WD-PRM6/7 WD-12, WD-90x, WD-100GR WD-11, WD-151C/211C, WD-151E/211E/241E/331E/421E, WD-153/213/243/333/423 WD-215T, WD-PRM60/90, WD-T60/60F/80/120, WD-C90/180, WD-BF90/180

Conveyor-, Special- dishwashers *: WD-B xxx, WD-xxCT, WD-40BRE, ACS-38/47 WD-18CW, WD-25BR, WD-25T, WD-8020/8020W/8020WL/9020/9020W, ACS 400HC, ACS 800

Conform to the following directives:

EU Declaration of Conformity

according to EU's Machinery Directive 2006/42/EG, annex IIA

Harmonised standards

EN 12 100-1 Machine safety: specification for general requirements, part 1

EN 12 100-2 Machine safety: specification for general requirements, part 2

- EN 60 204-1 Machine safety: electrical equipping of machines: general requirements
- EN 60 335-1 Safety of household and similar electrical appliances General requirements
- EN 60 335-2-58Specification for safety of household and similar electrical appliances Particular requirements -Commercial electric dishwashing machines

EU Declaration of Conformity

according to EU's Low-voltage directive 2006/95/EC

Harmonised standards

EN 60 529 Specification for degrees of protection provided by enclosures (IP code)

EN 62 233 Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure

EU Declaration of Conformity

according to EU's EMC-directive 2004/108/EC

Harmonised standards

EN 61 000-6-2 Electromagnetic compatibility (EMC) - Immunity standard for industrial environments

EN 55 014-1 Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. (EMC) - Part 1: Emission

EU Declaration of Conformity

according to EU's WEEE-directive 2003/108/CE

according to EU's RoHS- directive 2011/65/EU

Harmonised standards

EN 50 581 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

For products marked with *

EN 60 204-1 Machine safety: electrical equipping of machines: general requirements

For other products

EN 50106 Safety - Particular rules for routine tests

Växiö 2013-04-15 1.00 Torsten Nyberg Managing Director