Wexiödisk

FLIGHT-TYPE DISHWASHER
WD-B 500 - WD-B 900

(translation of the original documentation)

Installation and user manual

S/N: Valid from: 2012-08-01 Rev.: 4.0

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.

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 machine component warns of the presence of electrical equipment. The machine is sensitive to electrostatic discharge (ESD), and a static electricity bracelet must therefore 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.

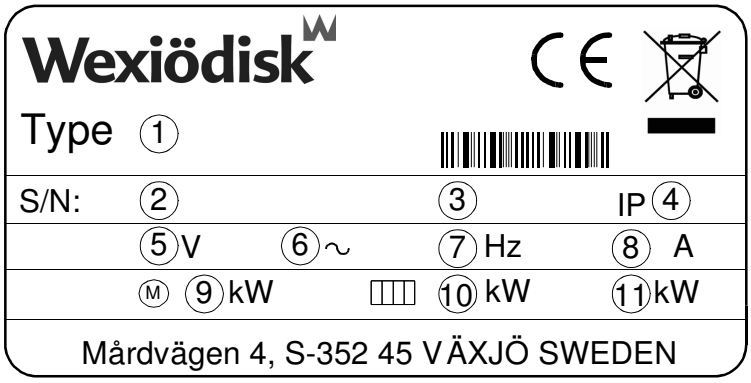
This symbol explains the importance of careful and regular cleaning of the machine to meet hygiene requirements.

1.2 Symbols on the dishwasher

This symbol on a machine component warns of the presence of electrical equipment. The component may only be removed by a qualified electrician. The machine is sensitive to electrostatic discharge (ESD), and a static electricity bracelet must therefore be used when handling the electronics.

1.2.1 Machine marking

The rating plates are located at the bottom of the outfeed side and in the electrical cabinet. The technical information on the plates is also included on the machine's wiring diagram. The various rating fields show:



marks_SAP

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 RoHS compatible

The machine is RoHS compatible, which means that it meets the requirements of the RoHS directive concerning substances in electrical and electronic products which are hazardous and harmful to the environment.

1.4 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. Hazardous 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

The electrical cabinet must only be opened by an authorised electrician. The machine is sensitive to electrostatic discharge (ESD), and a static electricity bracelet must therefore be used when handling the electronics.

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

Water pipes must be connected in a way that complies with the current regulations of the local water supply authority. Check the tightness of the water and steam connections before operating the machine.

Make sure that the mains voltage is the same as that indicated on the machine's rating plate.

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 pre-treating items (soaking, pre-washing, etc.). 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 Crushing risk

Avoid contact with the conveyor belt during use. The movement of the belt can cause crushing injuries at the inlet and outlet of the machine. When servicing the machine, avoid contact with the conveyor belt's drive system during use. Crushing injuries can occur between the drive motor's chain and the chainwheel.

2.5.2 Risk of slipping

Keep the floor dry to eliminate any risk of slipping. Mop up any water which has been spilled.

2.6 Safety instructions if the machine is not functioning

Check the following:

- Does the display show any error messages?
- Has the machine been used according to the instructions?
- Are all the removable parts in the correct place?
- Is the main 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.

2.7 Cleaning

The water in the chemical wash tank is at a temperature of approx. 60 °C and contains detergent. Be careful when emptying and cleaning the tanks. Use protective gloves.

2.7.1 Pressure washing

The machine must not be cleaned with a pressure washer, either inside or out.

In order to satisfy current requirements, electrical components of approved enclosure classes are used. No enclosure classes are designed to withstand pressurised water.

2.7.2 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.

2.7.3 Cleaning the floor

When the floor is washed, water can splash up under the machine and damage the components. These have not been designed to withstand being washed with water. Do not wash the floor within 1 metre of the dishwasher. Pressure washers have special protective cases which can be fitted to prevent water splashing. Problems with splashing can also occur when using ordinary hoses.

2.8 Repairing and servicing the dishwasher

Disconnect the power supply before removing the front panels. Avoid touching hot pipes and the booster heaters.

2.9 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 regarding the correct installation method.

The instructions should be used together with the machine drawing, wiring diagram and flow diagram.

he 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 guarantee and the 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 well-lit 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 should be calculated on the basis of current standards.

3.2.3 Drains

There must be a floor drain with an effective trap 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

The area above the machine must not contain any equipment which could prevent the fitting, servicing and replacement of parts. A free height of at least 2.8 metres is required in order to remove the inspection doors.

A 1-metre free space should be allowed in front of the machine and around the infeed and outfeed ends for service purposes.

3.3 Transport and storage

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

The machine is supplied in sections with a pallet under each section. Transport each section to the installation site using a handtruck.

The sections are transported transversely with the forks of the truck inserted from the long side. (The side marked “FRONT”). If the space available does not permit transverse transport, each section should be transported using two handtrucks, one at each short end. Do not lift the machine by its legs. These are indicated by labels on the outside of the packaging.

Label which marks the position of the legs

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

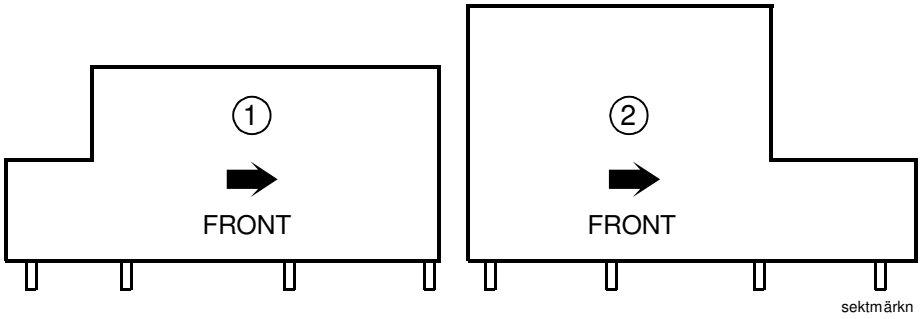
NOTE: The machine must not be transported without a pallet or other support, Some form of support beam must always be used along the sides of the machine during transport. otherwise the machine may become damaged. When transporting the machine without an ordinary pallet, always check that none of the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

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

3.4 Marking of sections

The machine is normally divided into two sections. In some cases the machine can be delivered in more than two sections. The installation instructions describe the assembly of a machine that has been split into two sections. Regardless of the number of sections, the assembly of all sections is undertaken in the same way. The sections are marked on the outside of the packaging with the following information.

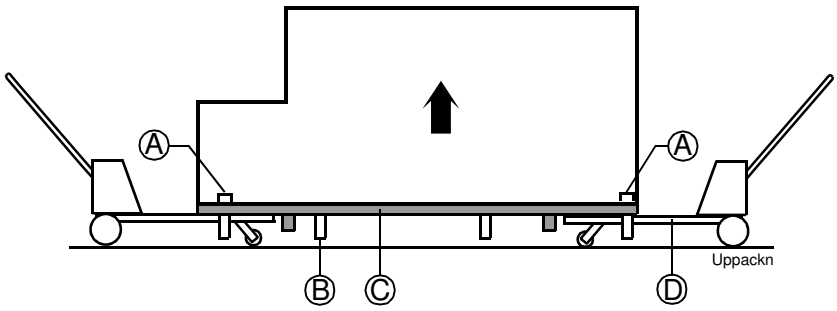
- Numbering 1-2. Section 1=infeed section with washing zones, Section 2=outfeed section with final rinse and drying zone.
- Arrows which indicate the feed direction of the machine.
- Marking of the front. FRONT=Front.



Section marking on the packaging

3.5 Unpacking

- Check against the delivery note that all the units have been delivered.
- Remove the packaging, but leave the pallet and any transport supports in place.
- Inspect the machine for any transport damage.
- Lift the section at both ends using a handtruck. Screw down the legs (B) so that they extend below the bottom of the pallet (C). Lower the section. Split the pallet and take it away.
- If the section should need to be lifted again from the short sides, a wooden runner should be placed under the cross-bar (A) on the section stand.



A=Stand cross-bar
B=Leg
C=Pallet
D=Handtruck

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

3.6 Installation

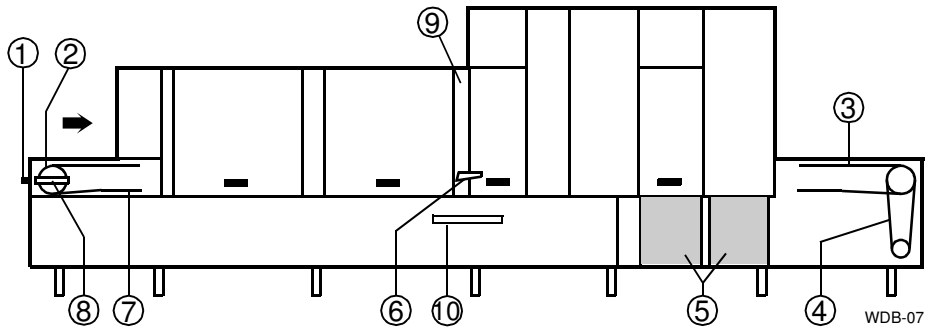
3.6.1 General information

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

Remove all lower cover plates (5).

The final position of the machine is either free-standing in the room or placed with the back against a wall. If the machine is to be placed against a wall, the assembly should be carried out with sufficient space behind the machine for access during the fitting of components on the back of the machine. The fully assembled machine is then pushed into position.

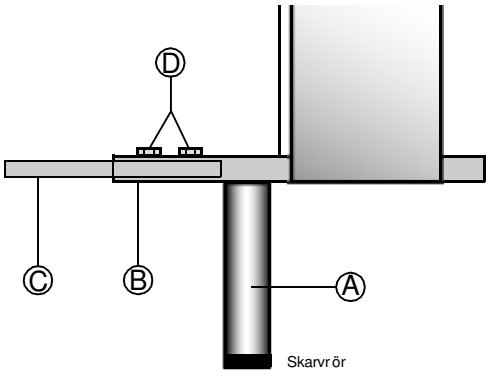
The picture below shows a machine with the feed direction from left to right. The picture shows parts which must be assembled during the installation and the adjusting device for tensioning the conveyor belt. The length of the infeed and outfeed section and the number of zones vary depending on the specific machine. For this reason, the illustration below shows the approximate position of the components in the machine.



1. Adjusting screws for the conveyor belt
2. Tension wheel
3. Upper track
4. Chain
5. Coverplate
6. Drainage plate
7. Lower track
8. Belt tensioner
9. Coverplate
10. Overflow pipe

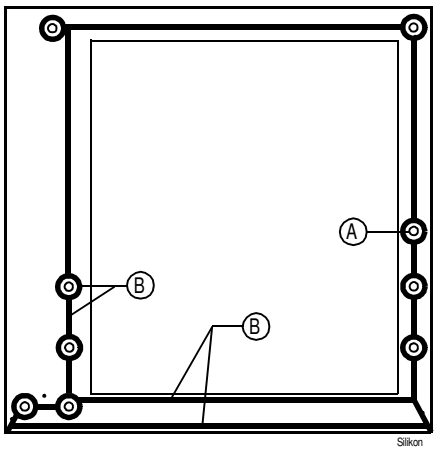
3.6.2 Assembly of sections

- Remove any transport supports.
- Place section 2 in the appropriate place at the right height. Check that the section is horizontal using a spirit level (on the tank body). Adjust the machine using the legs.
- Fit the joining tube to the stand on section 2.

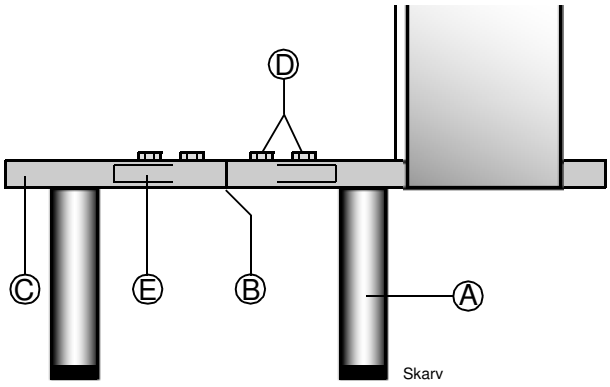


Assembling the joining tube
A=Leg
B=Stand
C=Joining tube
D=M6x10 Bolts

- Place section 1 next to section 2 so that the rectangular metal pieces on the stands of both sections are in line with each other. Check that section 1 is horizontal using a spirit level (on the tank body). Adjust using the legs.
- Push section 1 against section 2 until the rectangular metal pieces on the stand are pushed close to each other, but do not push the sections completely together. There should still be a distance between them in order to apply the silicon around the openings.
- Apply plenty of silicon around the openings of both sections and around all bolt holes. Place two strands of silicon along the lower edge.
- Push the sections together. Hold them together with a screw clamp and fit the bolts that hold the hoods together. Lock the stand on the front and back of the machine using two M6x10 bolts. Check that the machine is horizontal using a spirit level (on the tank body).



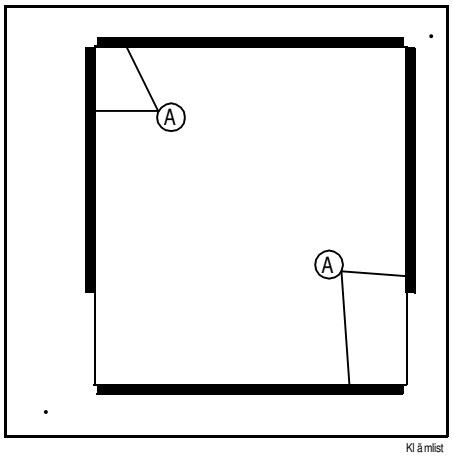
Application of silicon
A=Bolt hole
B=Silicon



Locking the stand
A=Leg
B=Joint on the stand
C=Stand
D=M6x10 Bolts
E=Joining tube

Assembly of clamp strips and upper cover plates

- When the sections have been fitted together, the clamp strips (A) should be fitted inside the joint. Fit the upper clamp strip first. Apply a small amount of silicon to the strips before fitting them into place.
- Seal the joint between the sections on the outside of the machine (back and top) using silicon. Attach masking tape to both sides of the joint and fill the joint with silicon.
- Fit the upper cover plate (9) between the sections.



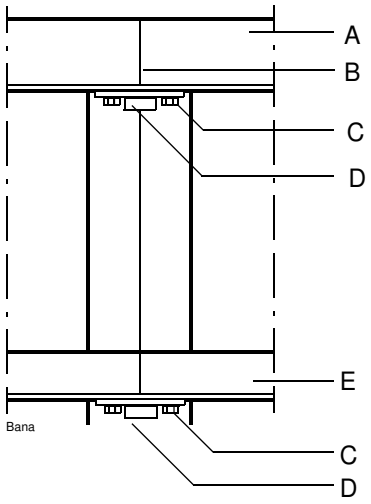
Assembling the clamp strips
A=Clamp strip

3.6.3 Pipes

Fit together all pipes for water, steam, condensation water and waste (pipe for steam and condensation water on steam-heated machines only). The pipes are split at the section join. The necessary parts for joining the pipes together are fitted to the pipes at the joint. The pipes should be lubricated with a sealant before joining.

3.6.4 Assembling the track and conveyor belt

Screw the upper and lower tracks (3, 7) of the conveyor belt together at the join between the sections using the support plates and nuts supplied.



Locking the upper and lower tracks
A=Upper track
B=Joint
C=Flange nuts
D=Support plate
E=Lower track

- Fitting the drainage plate (6).
- Fit the overflow pipe (10) between the tanks.
- Joint the belt if it is in position in the machine.
- If the belt is not in position, the installation is carried out as follows:
- Feed in the belt on the upper track through the outfeed opening. Pull the belt through the machine through to the infeed opening and around the tension wheel (2).
- Use a piece of rope and pull the belt back on the lower track to the outfeed opening. Join the ends of the belt.
- Tension the belt. Undo the screws for the belt sections (8). The screws are accessible from the inside of the infeed section. Tension the belt using the adjusting screws (1). When the belt is sufficiently taut, it should be possible to lift it by about 5cm at the centre of the infeed. Tighten the screws for the belt tensioners (8).

3.6.5 Other assembly

- Fit the chain (4) to the drive motor.
- Pull out and connect the electric cables for the pumps and other components. The cables are located at the section joint.
- Each cable is marked with the same designation as the component to which it must be connected. The marking for each component is on the component itself and on the machine's stand. The cables are placed in existing cable runs.

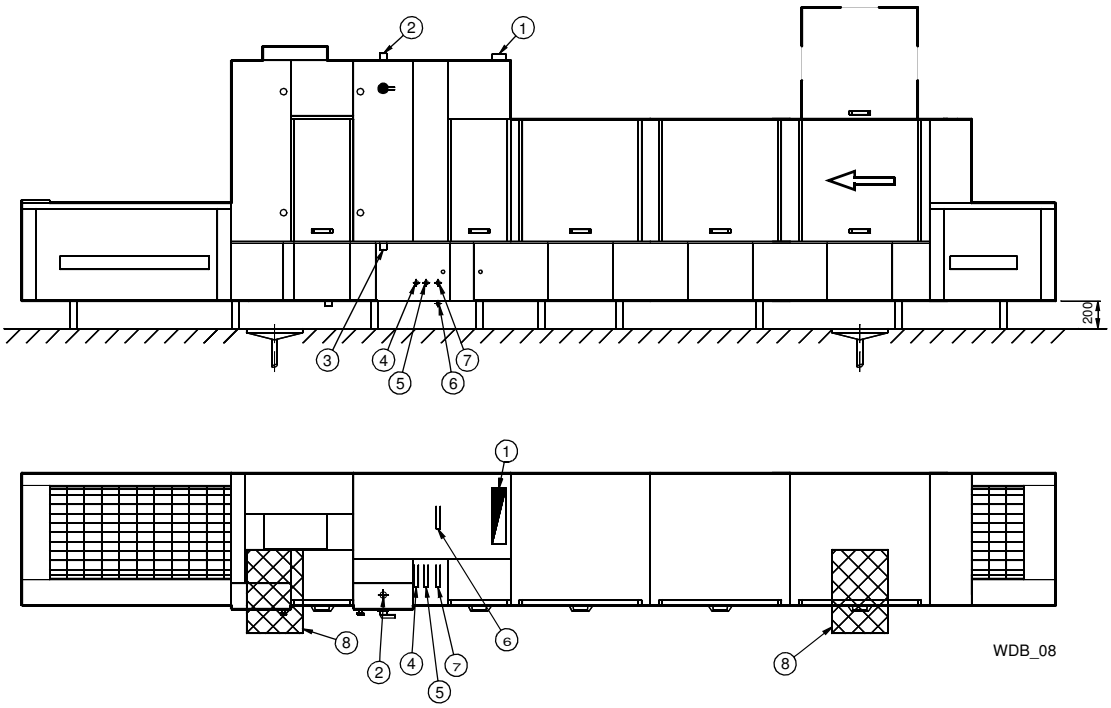
3.6.6 Placement against a wall

If after assembly the machine is to be moved and placed with the back against a wall, place wooden runners under the stand and push the machine into position with the aid of a handtruck.

Using a spirit level (on the tank body) check that the machine is horizontal and adjust the legs of the machine if necessary.

3.7 Connections

The picture below shows a machine with the feed direction from right to left. The length of the infeed and outfeed and the number of washing and drying zones vary depending on the size of the machine. The machine can also operate in the opposite direction. For the exact location of the various connections, see the specific diagrams for each machine which are supplied by the manufacturer.



1. Extractor 400x100 mm without damper
2. Electrical connection from ceiling
3. Alternative electrical connection from floor
4. Hot water connection 55-70°C, (Connection from floor or ceiling)
5. Cold water connection 5-12°C, (Connection from floor or ceiling)
6. Condensation water connection (Steam-heated machines)
7. Steam connection (Steam-heated machines. Connection from floor or ceiling).
   Steam pressure 50-140 kPa (Fully steam-heated machine).
   Steam pressure 150-250 kPa (Electrically heated drying zone).
8. Floor drain 400x600 mm

⚠ Check that the overheating protection on booster heaters and tank elements is set to zero.

3.7.1 Water connection

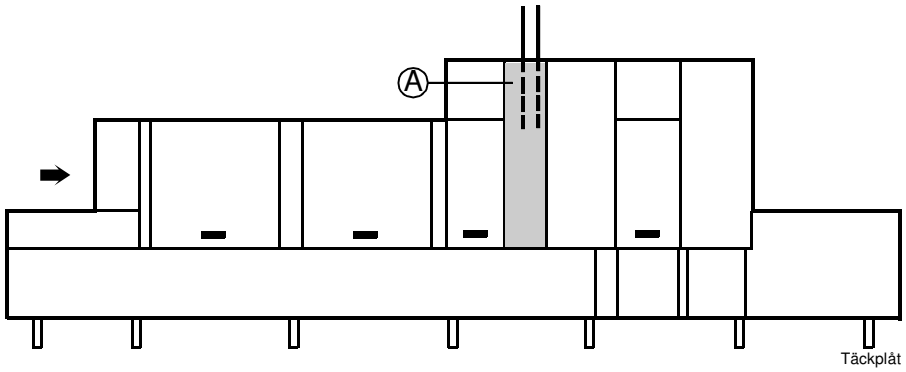
The machine is supplied as standard without stopcocks for the water supply. Stopcocks must be installed on incoming pipes.

It is important that the water supply has sufficient pressure to ensure the correct flow of water to the machine. Water pressure: 300-600 kPa.

The hot water connection is fitted with a filter. The cold water connection has a filter, non-return valve, safety valve and vacuum valve.

The cold water connection can be fitted with a break tank (option), which is available as extra equipment. In this case the connection has a filter and non-return valve.

When installing a connection from the ceiling, the pipes must be fed from above down through the cable duct behind the cover plate (A) next to the electrical cabinet. Remove the cover plate and break away the perforated plate on top of the cover plate.



Connection from ceiling
A=Cover plate

3.7.2 Steam connection (option)

A steam connection is only provided on steam-heated machines. The connection is fitted with a filter. The machines are supplied as standard without shut-off valve for steam. A shut-off valve must be installed on the incoming pipe. 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.

3.7.3 Condensation water connection (option)

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

3.7.4 Drain connection

The drain is connected using a 50mm metal tube which tolerates mechanical impacts. The drain must run to a floor drain, where its opening must be above the water level.

3.7.5 Detergent and drying agent

The machine comes ready for the connection of a detergent and drying agent system. The water outlet for the detergent is located on the incoming hot water pipe. The drying agent connection is on the pipe leading to the booster heater for the final rinse water (see the flow diagram). This flow diagram is shown on the inside of the electrical cabinet.

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

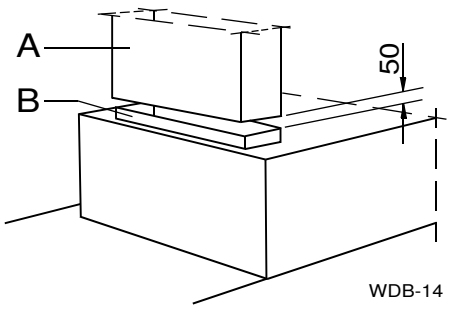
Avoid making unnecessary holes in the machine. If possible the equipment should be placed on a wall next to the machine.

Electrical connections: See the wiring diagram. This wiring diagram is shown on the inside of the electrical cabinet.

3.7.6 Ventilation

Next to the machine's condensing battery is a connection for ventilation. If a sound trap is supplied, it is fitted directly to this connection. The connection to the ventilation system is made using an air gap.

The location and size of the connection are shown on the installation diagram.



Connection with air gap
A=Ventilation duct 400x105 mm
B=Machine's ventilation connection 400x100 mm

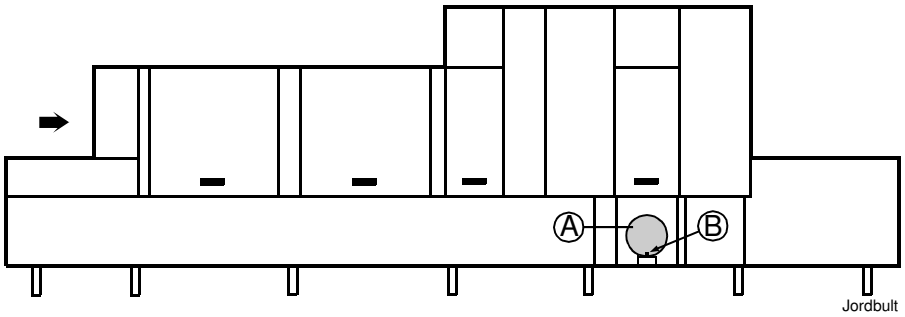
3.7.7 Electrical connection

This symbol on a machine component warns of the presence of electrical equipment. The component may only be removed by a qualified electrician. The machine is sensitive to electrostatic discharge (ESD), and a static electricity bracelet must therefore be used when handling the electronics.

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

The machine has a built-in main switch. Rating data is given on the rating plates, which are located on the end of the outfeed and in the electrical cabinet. Electrical data is also shown on the machine's wiring diagram. The installation diagram shows the location of the electrical connection.

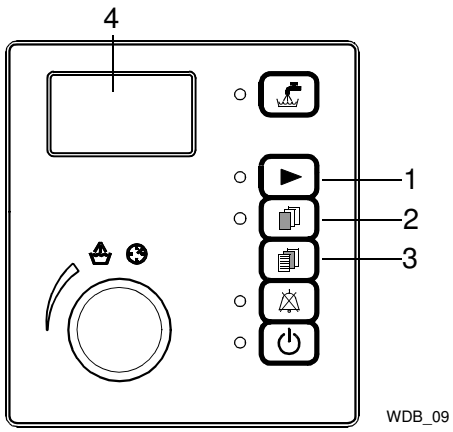
An earth cable for potential equalisation is connected to the earth bolt (B) on the stand. The connection is located on the beam in front of the heat exchanger (A).



Position of the earth bolt
A=Heat exchanger
B=Earth bolt

After completing the electrical installation, switch on the main switch and all circuit breakers.

3.8 Checking and setting the final rinse flow



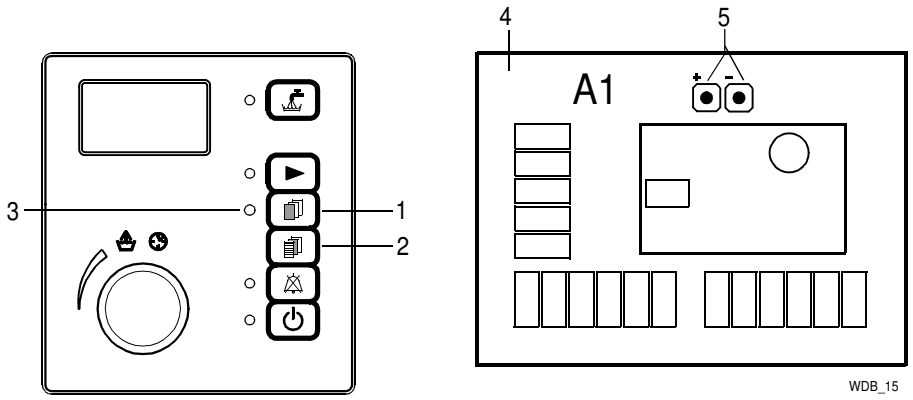
Control panel functions for checking the final rinse flow

1. Button for the feed
2. Button for the diagnostics function
3. Button for switching between diagnostic messages
4. Display for showing texts

The final rinse flow is set in the factory, but should be checked after the machine has been installed.

- Prepare the machine for use in accordance with the INSTRUCTIONS FOR USE.
- Start the feed by pressing button (1).
- Tape over the photocell on the infeed and wait until the final rinse starts.
- Press and hold button (2) until the display (4) shows a menu with the following groups: SETPOINTS - DIAGNOSIS - RELAY TEST - STATISTICS - TIME & DATE - LANGUAGE - OTHER.
- Select DIAGNOSIS using button (2).
- Press button (3) to display the first message and use button (3) to scroll through the messages until DI16 CARD1 BV02 FLOW SENSOR is displayed. The final rinse flow is displayed in litres/min.
- Adjust the flow using the reducing valve which is located next to the water meter. The flow, which depends on the size of the machine, should be around 4-5 litres/min. The exact flow can be found on the machine's flow diagram which is in the electrical cabinet.
- Exit the diagnostics function by pressing button (2). Press and hold the button until the corresponding LED goes out. Remove the tape from the photocell.

3.9 Filling booster heater 3 with R/O water (option)



Functions on the control panel and circuit board for activating and using the diagnostics function

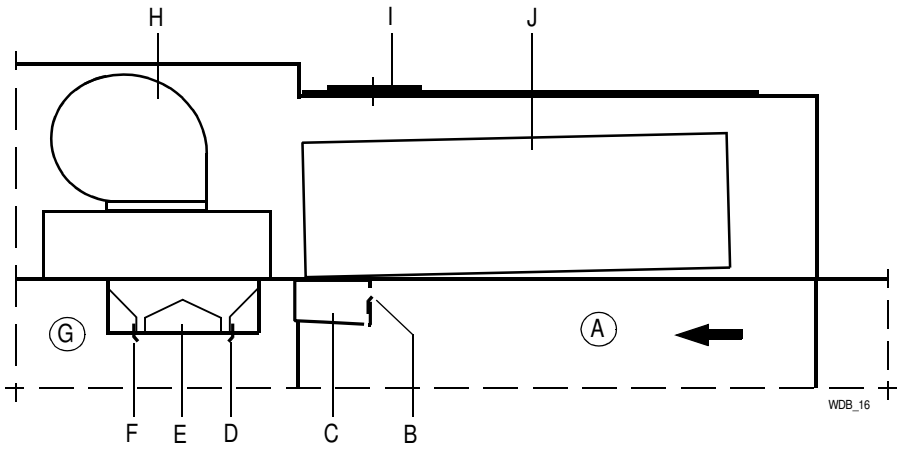
1. Button for activating the diagnostics function.
2. Button for switching between diagnostic messages.
3. LED
4. Circuit board A1.
5. 5.Plus and minus buttons.

- Prepare the machine for operation and fill it with water as described in the instructions for use.
- Turn the knob for R/O water to position 1. The knob is located in the infeed.
- Activate the diagnostics function by pressing and holding button (1) until a menu with the following groups appears on the display: SETPOINTS - DIAGNOSIS - RELAY TEST - STATISTICS.
- Select RELAY TEST by pressing button (1).
- Press button (2) to display the first message. Scroll down by pressing button (2) until the text RE13 CARD2 VALVE DEMI WATER appears on the display.
- Press the plus button (5) on the circuit board (4) to activate solenoid Y04. Booster heater 3 will now fill with water.
- Check that water flows into the final rinse nozzles. Booster heater 3 is now filled with water.
- Close solenoid Y04 using the minus button (5).
- Exit the diagnostics function by pressing and holding button (1). The LED (3) must go out.
- Turn the knob for R/O water to position 0.
- Turn on circuit breaker FU43 to heat the water in booster heater 3.

3.10 Adjusting the air flow in the drying zone

The positioning of the spread plates, guide plates etc. which control the air flow will depend on a variety of factors, such as the size of the machine, whether it is electrically or steam heated, the temperature and ventilation in the dishwashing room etc. Therefore, it is not possible to give any precise figures. Instead trial and error must be used in each individual case. Guidelines for standard machines are given below.

The machine must be operating. When the air flow is set correctly, steam must not escape from the infeed and outfeed openings and the temperature in the tanks must remain constant. The figure shows parts of a drying zone and final rinse zone in a machine where the feed direction is from right to left.



- A=Final rinse zone
- B=Damper plate
- C=Drainage plate
- D=Guide plate 1. The plate can be turned to guide the air flow towards the infeed or outfeed, rotated through 180° and raised or lowered.
- E=Spreader plate which can be moved sideways to increase or reduce the gap between the plate and guide plates D and F.
- F=Guide plate 2. The plate can be turned to guide the air flow towards the infeed or outfeed, rotated through 180° and raised or lowered.
- G=Drying zone
- H=Fan
- I=Damper
- J=Condensing battery

Below are some basic settings for machines with one or two drying zones (standard design):

3.10.1 WD-B 500, electrically heated, one drying zone

- Damper (I) half open.
- Damper plate (B) fully open towards final rinse zone.
- Spreader plate (E) pushed towards infeed. 2 mm gap between (E) and (D).
- Guide plate 1 (D) pointed towards the outfeed and in its lower position.
- Guide plate 2 (F) rotated through 180° (angled part upwards) and in its lower position.

3.10.2 WD-B 600, electrically heated, one drying zone

- Damper (I) half open.
- Damper plate (B) fully open towards final rinse zone.
- Spreader plate (E) pushed 15 mm from its central position towards the infeed.
- Guide plates 1 and 2 (D, F) rotated through 180° (angled part upwards).

3.10.3 WD-B 700, electrically heated, one drying zone

- Damper (I) half open.
- Damper plate (B) fully open towards final rinse zone.
- Spreader plate (E) pushed 10 mm from its central position towards the infeed.
- Guide plates 1 and 2 (D, F) fitted with the angled parts turned towards each other.

3.10.4 WD-B 800, electrically heated, two drying zones

- Damper (I) half open.
- Damper plate (B) fully open towards final rinse zone.
- Drying zone 1: Spreader plate (E) in centre (gaps on both sides of equal size). No guide plates (D, F) fitted.
- Drying zone 2: Spreader plate (E) pushed towards the outfeed with a gap between it and the outfeed of 10 mm. Guide plate 2 (F) pointed towards the infeed (angled part towards the infeed) and in its lower position. No guide plate 1 (D).

3.10.5 WD-B 900, electrically heated, two drying zones

- Damper (I) half open.
- Damper plate (B) fully open towards final rinse zone.
- Drying zone 1: Spreader plate (E) in centre (gaps on both sides of equal size). No guide plates (D, F) fitted.
- Drying zone 2: Spreader plate (E) pushed towards the outfeed with a gap between it and the outfeed of 10 mm. Guide plate 2 (F) pointed towards the infeed (angled part towards the infeed) and in its lower position. No guide plate 1 (D).

3.11 Cleaning the exterior

Remove the protective plastic from the machine and polish it with a suitable cleaning material for stainless steel plate.

Use a suitable solvent to remove any residual adhesive from the plastic. Rub with a forwards and backwards movement in the polishing direction of the plate. Wire brushes or wire wool should not be used as they will damage the stainless steel plate.

3.12 Trial run

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:
Address for visitors:
Postcode + Town/City:
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:

- Water and drain connections
- That the machine is evenly balanced
- Detergent and drying agent
- That the pump filters, outlet seals and tank filter are in position
- That the mini-switches are in the OFF position
- The direction of rotation of the pumps
  NOTE: If the direction of rotation is wrong, phase inversion of the relay is required
- That the overheating protection on booster heaters and tank elements is 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 for use
- Check and make a note of the temperature of incoming hot water during filling _____°C
- When the filling check for the booster heaters has been completed and the heating of the machine begins, switch on the mini-switches

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 is working
- The water temperature is maintained
- The washed items are clean
- The washed items are dried
- The overload switch for the feed is working
- There is adequate water flow to the machine (see flow diagram)

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

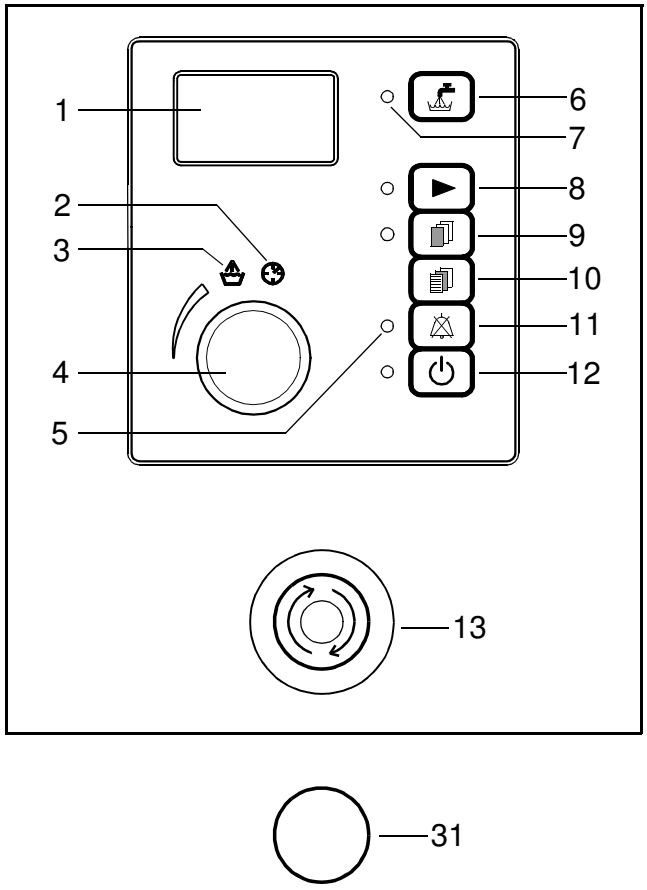
All staff using the machine must be given training in how the machine works by the person responsible for staff safety.

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

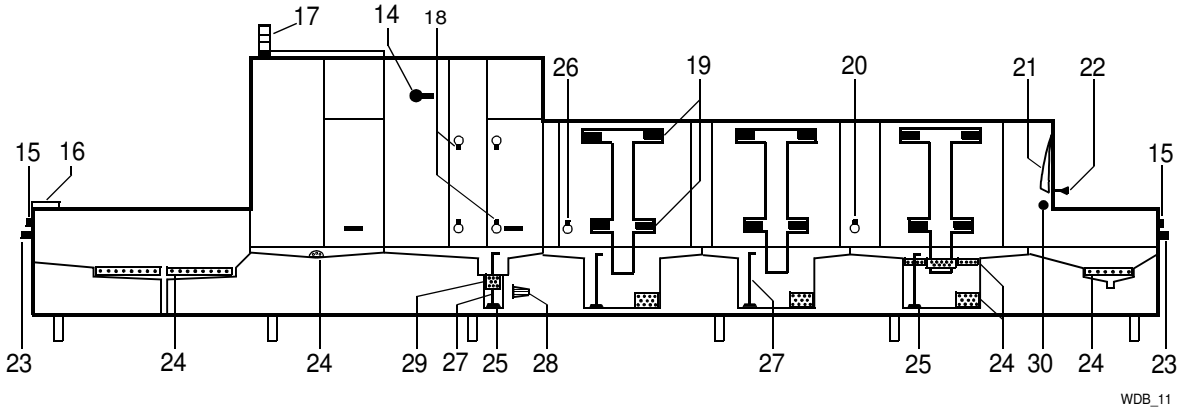
Children should be supervised to ensure that they do not play with the machine.

4.1 Preparations

4.1.1 The machine's design



Control panel



The picture shows a machine with pre-wash, intermediate rinse (option) and two chemical wash tanks. The machines can be supplied with more or fewer washing zones and the reverse feed direction.

1. Display
2. Symbol for contact time (washing time)
3. Symbol for washing
4. Knob for selecting contact time (washing time)
5. LED for indication of alarms. If the LED flashes, the alarm can be reset by pressing button (11).
6. Button for filling the machine
7. LEDs (4) which indicate that a function is activated
8. Button to start the feed
9. Button for diagnostics function (only for service engineers)
10. Button for diagnostic messages (only for service engineers)
11. Button for resetting alarm
12. On/Off
13. Emergency stop
14. Main switch
15. Stop/Start the conveyor belt
16. Limit switch
17. Light bar for alarms (option)
18. Nozzle final rinse
19. Wash arm
20. Nozzle, intermediate rinse (option)
21. Curtain
22. Lever for switching between normal and heavily soiled loads. (option)
23. Emergency stop
24. Strainer
25. Rubber sleeve
26. Nozzle, intermediate rinse
27. Outlet seal
28. Filter
29. Filter for the final rinse
30. Photocell
31. Button for cleaning (option)

4.1.2 Preparations before filling

Check:

- that the machine has been cleaned and that the stopcocks for the water are open.
- 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 outlet seals (27). The rubber sleeve (25) on the outlet seals must seal against the bottom plate.
- strainers (24, 29).
- curtains (21)

4.1.3 Filling and heating the machine

- The doors must be closed.
- Press button (12) to switch on the power supply.
- Press button (6). The filling and heating process will begin.
- When the machine is filled and heated, it starts and runs for a while to mix the detergent.
- When the detergent is mixed, the message on the display indicates that the feed should start. Start the conveyor belt by pressing button (8).

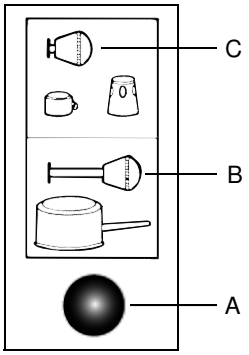
4.2 Using the machine

4.2.1 Washing

Setting for normal or heavily soiled loads (option)

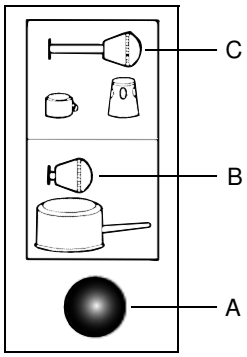
As additional equipment, the machine can be fitted with a function for washing normal or heavily soiled loads. If there is an option to change the rinse pressure, the machine is fitted with a lever (22) next to the infeed. Set the lever to the appropriate position for normal or heavily soiled load.

Note: The position of the lever for normal or heavily soiled loads will depend on the feed direction of the machine.



Spoltryck H-V

Position of the lever on a machine with the feed direction right to left
A=Lever to select normal or heavily soiled loads
B=Lever pulled out (heavily soiled loads)
C=Lever pushed in (normal loads)



Spoltryck V-H

Position of the lever on a machine with the feed direction left to right
A=Lever to select normal or heavily soiled load
B=Lever pushed in (heavily soiled loads)
C=Lever pulled out (normal loads).

Selecting the contact time / wash time

When the machine's feed has started, a text message appears on the display indicating that the machine is ready to wash and giving a contact time in seconds.

The contact time is the same as the wash time. In other words, it is the total period for which the load is washed while being transported through the various washing zones.

- Select the contact time using knob (4) on the panel. You can choose from six different times.
- You should select a contact time on the basis of how heavily soiled the load is. If the load is very heavily soiled, choose the longest contact time. In the case of lightly or normal soiled loads, choose a shorter contact time.

Feeding loads into the machine

- Before feeding dishware into the machine, soak dried-on food and remove large food particles. The items must not be soaked or pre-washed with ordinary washing-up liquid.
- Place plates, trays, pans, etc. upended on the belt. Cups, glasses and small items must be put in baskets which are placed on the belt or fed into the machine using a basket conveyor.
- Check that large bowls can pass freely through the machine.
- Washing and rinsing will start automatically when the dishware is fed into the machine. When all the dishware has passed through the machine, the belt and pumps will stop.
- Dishware that is not removed from the belt at the outfeed will activate the limit switch (16) and the belt will stop. When the dishware has been removed, the belt will start automatically.
- If the belt has stopped without the limit switch (16) being activated, it can be restarted using the button (8) on the panel or either of the buttons (15) at the infeed or outfeed.

4.2.2 Emergency stop

The machine has three emergency stop buttons. One of the emergency stop buttons (13) is located beneath the control panel. The other emergency stop buttons (23) are located at the infeed and outfeed. If the machine has been stopped by an emergency stop button being pressed when the machine is running, the emergency stop button must be reset by turning it in the direction of the arrows. Then press button (8) or (15) to restart the feed.

4.2.3 Lights which indicate alarms (option)

The light bar (17) has flashing or non-flashing lights to indicate the following states:

- Green non-flashing light=Machine in operation
- Yellow flashing light=Alarm. Check the message on the control panel display. Rectify the cause of the alarm. See the section “Operating problems”.
- Red non-flashing light=Serious fault. Check the message on the control panel display. Contact service personnel.

4.2.4 Changing the water

For best wash results, it is important that the water in the tanks is changed when it becomes too dirty. The water should always be changed if foam begins to form in the washing tanks.

- Switch the machine off by pressing button (12).
- Remove the filter from the pre-wash tank and empty the machine by turning the outlet seals (27) a quarter of a turn.
- When the tanks are empty, refit the outlet seals and filters.
- Refill the machine. See “Filling and heating the machine”.

4.3 After use

4.3.1 End of wash, cleaning

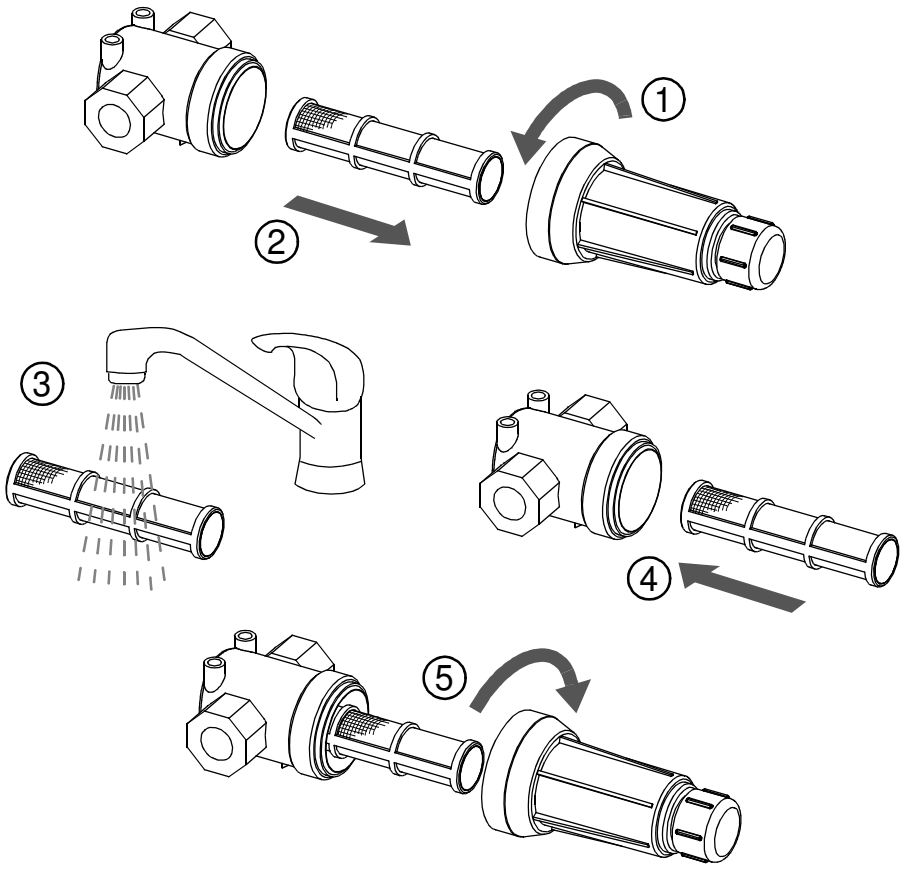
HACCP

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.

4.3.2 Daily cleaning

Cleaning the inside

- Switch the machine off by pressing button (12).
- Empty the machine by turning the outlet seals (27) a quarter of a turn.
- Clean the filters (24), all the curtains (21), the outlet seals (27) and the rinse nozzles (18, 20, 26). Never leave the outlet seals so that the rubber sleeve rests on a surface. The sleeve can become deformed leading to the risk of water leakage in the tanks.
- Clean the washer arm nozzles (19).
- Clean the doors. Wipe the rubber strips on the doors which are fitted at the top of the back of the doors.
- Rinse all the inside surfaces of the machine and clean the tanks.
- Finally, clean the strainer (29).
- Empty the final rinse tank and clean the filter (28). The filter is placed behind the lower door at the outfeed end. Unscrew the cover and remove the filter. Clean the filter. Make sure that the cover seal provides a good seal when refitting.
- Refit the components and leave the doors open.



Rec_filter

Filter for final rinse

Cleaning the exterior

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.

Incorrect cleaning methods

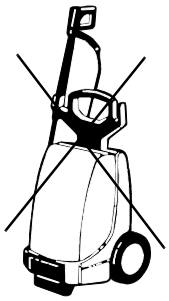
NOTE: If the incorrect cleaning method is used, this may damage the machine. The following points must be observed:

Do NOT use steel wool as it will cause corrosion to form in the machine.

Steel wool can cause rust 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.

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



Pressure washers must not be used for cleaning

4.3.3 Cleaning and checking each week or as required

Weekly cleaning should be more thorough than daily cleaning. In addition to the daily cleaning measures, follow these instructions:

- Clean the washer arms (19). Remove the lower washer arms by pushing the lock on the front of the washer arm down and pulling the washer arm out. Remove the upper washer arms by turning the knob beneath the front of the washer arms a half turn. Pull the washer arm down slightly and out. Brush and rinse the inside of the washer arms and clean the nozzles.
- Check and clean the rinse nozzles (18, 20, 26).
- Check that the overload switch for the feed is working by attempting to hold the belt still for a few seconds. If the switch does not activate (the belt should stop), it must be adjusted immediately.
- Refit all cleaned components.

4.3.4 Operating problems

Error messages

Machine faults and user faults are indicated with messages on the display (1). If an alarm occurs, LED (5) will light up or flash. If the LED flashes, the alarm can be reset by pressing button (11).

A light in the light bar (17) can also indicate an alarm. The light bar is extra equipment.

The following alarms can be dealt with by the operator. For other alarms, or if an alarm reset with button (11) recurs, authorised service personnel must be contacted.

Alarm texts

Alarm text	Cause	Action
(63) POWER SUPPLY FAILURE CHECK THE EMERGENCY SWITCH	One of the emergency stop buttons (13, 23) has been pressed.	Reset the emergency stop by turning it in the direction of the arrows. Restart the machine.
(1) EMERGENCY STOP ACTIVATED	One of the emergency stop buttons (13, 23) has been pressed.	Reset the emergency stop by turning it in the direction of the arrows. Start the feed by pressing button (8) or (15).
(100) NOMINAL VALUES RESTORED FROM UI	Internal memory corrupt.	Reset the alarm using button (11). Contact service personnel.
(9) COMMUNICATION ERROR FREQUENCY CONVERTER CALL SERVICE	---	Reset the alarm using button (11). Contact service personnel.
(10) FREQ. CONVERTER ERROR CHECK POWER SUPPLY CALL SERVICE	---	Reset the alarm using button (11). Contact service personnel.
(11) OVERTEMPERATURE FREQUENCY CONVERTER CALL SERVICE	---	Reset the alarm using button (11). Contact service personnel.
(12) DC BUS OVERVOLTAGE FREQUENCY CONVERTER CALL SERVICE	---	Reset the alarm using button (11). Contact service personnel.
(14) WEAK SIGNAL FROM PHOTOCELL START WASH CLEAN PHOTOCELL	There is dirt on one of the two photocells (30) inside the infeed hood.	Clean the photocells. The alarm in the display will disappear after cleaning.
(15) WEAK SIGNAL FROM PHOTOCELL END LIMIT CLEAN PHOTOCELL	Dirt on the photocell at the outfeed.	Clean the photocell. The alarm on the display will stop after the photocell has been cleaned. (The photocell on the outfeed is extra equipment).

Alarm texts		
Alarm text	**Cause**	**Action**
(47) HACCP ALARM PUMP FUNCTIONALITY DEFECT PRESS RESET	One of the pumps is not working.	Reset the alarm using button (11). Contact service personnel.
	The water level in one of the tanks is low. The outlet seals (27) are not closed. The rubber sleeves are not sealing against the bottom plate.	Close the outlet seals. Check the rubber sleeves. Reset the alarm using button (11).
(64) HACCP ALARM WRONG TEMPERAURE IN TANK PRESS RESET	The washing temperature in one of the tanks is too low.	Reset the alarm using button (11). Contact service personnel.
(67) HACCP ALARM WRONG TEMPERATURE IN BOILER PRESS RESET	The temperature in one of the booster heaters is too low.	Reset the alarm using button (11). Contact service personnel.
(72) HACCP ALARM WASHING DETERGENT FUNCTIONALITY DEFECT PRESS RESET	The detergent has run out.	Check and fill with new detergent. Reset the alarm using button (11).
(78) HACCP ALARM FINAL RINSE DEFECT PRESS RESET	The water stopcock is closed. The rinse nozzles (18) for the final rinse are blocked.	Open the stopcock. Clean the nozzles. Reset the alarm using button (11).
(29) EXTERNAL ALARM INPUT ACTIVATED	---	Reset the alarm using button (11). Contact service personnel.
(30) TIMEOUT FILLING OF TANKS PRESS RESET	The water stopcocks are closed. The outlet seals (27) are not closed. The rubber sleeves are not sealing against the bottom plate.	Open the stopcocks. Close the outlet seals. Check the rubber sleeves. Reset the alarm using button (11).
(31) TIMEOUT HEATING TANKS AND BOILERS PRESS RESET	---	Reset the alarm using button (11). Contact service personnel.
(33) DOOR IS OPEN CLOSE DOOR	---	Close the door and start the feed by pressing button (8) or (15).
(34) DOOR1 IS OPEN CLOSE DOOR	---	Close the door and start the feed by pressing button (8) or (15).
(35) DOOR 2 IS OPEN CLOSE DOOR	---	Close the door and start the feed by pressing button (8) or (15).
(36) DOOR 3 IS OPEN CLOSE DOOR	---	Close the door and start the feed by pressing button (8) or (15).
(37) DOOR 4 IS OPEN CLOSE DOOR	---	Close the door and start the feed by pressing button (8) or (15).
(38) DOOR FOR RINSE IS OPEN CLOSE THE DOOR	---	Close the door and start the feed by pressing button (8) or (15).

Alarm texts		
Alarm text	**Cause**	**Action**
(39) OVER FLOW PIPE NOT IN POSITION CONTROL THE OVER FLOW PIPE	The level pipe is not sitting in place properly.	Check the position of the level pipe. Reset the alarm using button (11).
(40) LOW LEVEL IN TANK 1 (PRE RINSE TANK)	The outlet seal is not closed. The outlet seal's rubber sleeve is not sealing against the bottom plate.	Close the outlet seal. Check the rubber sleeve.
(41) LOW LEVEL IN TANK 2 (CHEM WASH TANK 1)	The outlet seal is not closed. The outlet seal's rubber sleeve is not sealing against the bottom plate.	Close the outlet seal. Check the rubber sleeve.
(42) LOW LEVEL IN TANK 3 (CHEM WASH TANK 2)	The outlet seal is not closed. The outlet seal's rubber sleeve is not sealing against the bottom plate.	Close the outlet seal. Check the rubber sleeve.
(44) LOW LEVEL IN TANK 4 (CHEM WASH TANK 3)	The outlet seal is not closed. The outlet seal's rubber sleeve is not sealing against the bottom plate.	Close the outlet seal. Check the rubber sleeve.
(45) LOW LEVEL IN FINAL RINSE TANK	The outlet seal is not closed. The outlet seal's rubber sleeve is not sealing against the bottom plate.	Close the outlet seal. Check the rubber sleeve.
(49) MOTOR PROT. FEEDER ACTIVATED CALL SERVICE RESTART FEEDING	---	Contact service personnel.
(51) OVERLOAD FEEDING ACTIVATED REMOVE OBJECT RESTART FEEDING	An object has stopped the belt.	Remove the item. Start the feed by pressing button (8) or (15).
(85) OVERLOAD FEEDING ACTIVATED PRESS RESET		Reset the alarm using button (11).
(52) FEEDER LIMIT SWITCH ACTIVATED. REMOVE OBJECT FROM THE FEEDER LIMIT	An object has activated the limit switch (16).	Remove the object. The conveyor will start automatically.
(56) OVERLOAD CUTTLERY TRACK ACTIVATED. CHECK AND RESTART FEEDING	An object has stopped the belt.	Remove the object. The conveyor belt will start automatically.
(57) END LIMIT CUTLERY TRACK ACTIVATED. CHECK CUTLERY TRACK	Cutlery has activated the limit switch on the cutlery belt at the outfeed.	Open the door of the cutlery belt and remove the cutlery. The machine will start automatically when the door is closed. (The belt with cutlery baskets is extra equipment).
(60) THE FEEDING HAS BEEN STOPPED RESTART FEEDING	Button (8) or (15) has been pressed.	Restart the feed by pressing button (8) or (15).
(61) LOW TEMPERATURE IN TANK 2 (CHEM WASH TANK 1)	The temperature in tank 2 is too low.	Reset the alarm using button (11). Contact service personnel.

Alarm texts		
Alarm text	**Cause**	**Action**
(62) LOW TEMPERATURE IN TANK 3 (CHEM WASH TANK 2)	The temperature in tank 3 is too low.	Reset the alarm using button (11). Contact service personnel.
(81) LOW TEMPERATURE IN TANK 4 (CHEM WASH TANK 3)	The temperature in tank 4 is too low.	Reset the alarm using button (11). Contact service personnel.
(66) LOW TEMPERATURE IN THE FINAL RINSE BOILER	The temperature in the booster heater is too low when the final rinse starts.	Reset the alarm using button (11). Contact service personnel.
(71) WASHING DETER- GENT ALARM ACTIVE CHECK DETERGENT DEVICE	The detergent has run out.	Check and fill with new detergent.
(74) POWER GUARD ACTIVATED PART OF EQUIPMENT IS TURNED OFF		OPTION
(77) FINAL RINSE ERROR SENSOR ERROR FLOW METER BV02	---	Reset the alarm using button (11).
(76) FINAL RINSE ERROR NO FLOW IN THE MACHINE	The water supply is shut off.	Check that the stopcocks on the incoming water supply are open. Reset the alarm using button (11).
(75) FINAL RINSE ERROR LOW FLOW IN THE MACHINE	The rinse nozzles (18) for the final rinse are blocked.	Clean the nozzles. Reset the alarm using button (11).
(83) TIME FOR MAINTANANCE CONTACT:	---	Contact service personnel. Reset the alarm using button (11).

Troubleshooting

In addition to the faults shown on the control panel, other faults can occur. The table below shows some faults which can be rectified by the operator. If the problem persists, contact authorised service personnel.

Troubleshooting		
Problem	**Cause**	**Action**
No indication on the control panel display when the power is switched on by pressing button (12).	The main switch (14) 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 machine does not stop filling.	The outlet seals are not in place.	Fit the level pipe or outlet seal.
	The rubber sleeve on one of the outlet seals is not sealing against the bottom plate.	Check that the outlet seals are closed. Replace the rubber sleeves, if they are damaged.
Noise from the wash pump.	Low water level in the tank.	Check that the tank's outlet seal is closed. Change the rubber sleeve if it is damaged.
	Foam in the tank.	Change the water.
The machine is not cleaning properly.	The rinsing and washing nozzles are clogged with dirt.	Check and clean the nozzles.
	There is too little detergent.	Check the amount of detergent.
	Foam formation in the washing tanks.	Check that the washing temperature is not too low and that the correct detergent is being used. Change the water if foam forms.
	Dirt has dried on the items to be washed.	Soak the items before washing.
	The rinsing pressure is too low.	Check that the lever (22) to set Normal/Heavily soiled loads is in the correct position (Extra equipment).
	The contact time is too short.	Select a longer contact time using knob (4).
	The water in the tanks is too dirty.	Change the water.
	Items to be washed incorrectly positioned on the conveyor.	Plates, trays, pans, etc. should be placed on end. Cups, glasses and small items must be put in baskets.
The dishware tips over.	The dishware is too light.	Put the dishware in baskets. Use a grid to hold the items in place.
	Rinsing pressure is too high.	Check that the lever (22) is set to the position for normal loads (extra equipment).
The washed items do not dry.	The rinsing nozzles are blocked.	Check and clean the nozzles.
	Too little drying agent.	Check the quantity of drying agent.

When you contact service personnel, you will need to provide the following information:

- Machine model
- Machine serial number and installation date
- A brief description of the problem
- What happened immediately before the fault occurred

5. Technical specifications

The manufacturer reserves the right to make changes to the technical data.

The correct technical data which is specific to each machine can be found in the machine's flow, machine and wiring diagrams. These are supplied with each machine and are on the inside of the electrical cabinet door.

TECHNICAL DATA	
Pump motor, pre-rinse zone (kW), (WD-B 500)	0.74
Pump motor, pre-wash (kW), (WD-B 600 - WD-B 900)	2.35
Pump motor, chemical wash 1 (kW)	2.35
Pump motor, chemical wash 2 (kW), (WD-B 700 - WD-B 900)	2.35
Pump motor, chemical wash 3 (kW), (WD-B 900)	2.35
Pump motor, recirculating rinse (kW)	0.74
Heat recovery fan (kW)	0.19
Fan, drying zone 1 (kW)	0.65
Fan, drying zone 2 (kW), (WD-B 800 - WD-B 900)	0.65
Drive motor, belt (kW)	0.15
Booster heater 1, final rinse (kW)	9
Booster heater 2, final rinse (kW)	6
Tank heater, chemical wash 1 (kW), (WD-B 500 - WD-B 600)	18
Tank heater, chemical wash 1 (kW), (WD-B 700 - WD-B 900)	12
Tank heater, chemical wash 2 (kW), (WD-B 700 - WD-B 900)	12
Tank heater, chemical wash 3 (kW), (WD-B 900)	9
Drying zone 1, heater (kW)	6
Drying zone 2, heater (kW), (WD-B 900)	6
Heat recovery, cooling surface (m^2)	52
Tank volume, pre-wash tank (litres), (WD-B 500)	20
Tank volume, pre-wash tank (litres), (WD-B 600 - WD-B 900)	104
Tank volume, chemical wash tank 1 (litres)	120
Tank volume, chemical wash tank 2 (litres), (WD-B 700 - WD-B 900)	120
Tank volume, chemical wash tank 3 (litres), (WD-B 900)	120
Tank volume, final rinse tank (litres)	21
Weight, machine in operation (kg), (WD-B 500)	1250
Weight, machine in operation (kg), (WD-B 600)	1480
Weight, machine in operation (kg), (WD-B 700)	1770
Weight, machine in operation (kg), (WD-B 800)	1930
Weight, machine in operation (kg), (WD-B 900)	2280
Enclosure class (IP)	55

CAPACITY AND OPERATING DATA	
Capacity, HC conveyor, normal wash (plates/hour), (WD-B 500)	3190
Capacity, HC conveyor, as per DIN 1050 (plates/hour), (WD-B 500)	2550
Capacity, standard conveyor, normal wash (plates/hour), (WD-B 500)	2304
Capacity, standard conveyor, as per DIN 1050 (plates/hour), (WD-B 500)	2016
Capacity, HC conveyor, normal wash (plates/hour), (WD-B 600)	3750
Capacity, HC conveyor, as per DIN 1050 (plates/hour), (WD-B 600)	3000
Capacity, standard conveyor, normal wash (plates/hour), (WD-B 600)	2907
Capacity, standard conveyor, as per DIN 1050 (plates/hour), (WD-B 600)	2535
Capacity, HC conveyor, normal wash (plates/hour), (WD-B 700 - WD-B 800)	5140
Capacity, HC conveyor, as per DIN 1050 (plates/hour), (WD-B 700 - WD-B 800)	4110
Capacity, standard conveyor, normal wash (plates/hour), (WD-B 700 - WD-B 800)	4000
Capacity, standard conveyor, as per DIN 1050 (plates/hour), (WD-B 700 - WD-B 800)	3504
Capacity, HC conveyor, normal wash (plates/hour), (WD-B 900)	6525
Capacity, HC conveyor, as per DIN 1050 (plates/hour), (WD-B 900)	5220
Capacity, standard conveyor, normal wash (plates/hour), (WD-B 900)	5102
Capacity, standard conveyor, as per DIN 1050 (plates/hour), (WD-B 900)	4464
Cold water consumption, normal final rinse (litres/hour), (WD-B 500)	160-210
Cold water consumption, normal final rinse (litres/hour), (WD-B 600)	170-220
Cold water consumption, normal final rinse (litres/hour), (WD-B 700 - WD-B 800)	190-240
Cold water consumption, normal final rinse (litres/hour), (WD-B 900)	210-260
Steam consumption at 150-250 kPa (kg/hour), (WD-B 500 - WD-B 600) *	63
Steam consumption at 50-140 kPa (kg/hour), (WD-B 500 - WD-B 600) *	52
Steam consumption at 150-250 kPa (kg/hour), (WD-B 700 - WD-B 800) *	71
Steam consumption at 50-140 kPa (kg/hour), (WD-B 700 - WD-B 800) *	59
Steam consumption at 150-250 kPa (kg/hour) (WD-B 900) *	92
Steam consumption at 50-140 kPa (kg/hour) (WD-B 900) *	72
Surface temperature at a room temperature of 20°C (°C)	35
Noise level (dB(A)) **	70

* When the machine is steam-heated.

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

CONNECTION, ELECTRICALLY HEATED MACHINE	
Total connected power (kW), (WD-B 500)	44
Total connected power (kW), (WD-B 600)	46
Total connected power (kW), (WD-B 700 - WD-B 800)	54
Total connected power (kW), (WD-B 900)	72
Main fuse 400V 3N~ (A), (WD-B 500- WD-B 600) *	80
Main fuse 400V 3N~ (A), (WD-B 700- WD-B 800) *	100
Main fuse 400V 3N~ (A), (WD-B 900) *	125
Max. connection area 400V 3N~ (L1-L3, N, PE) Cu (mm^2)	70

* Other connection voltages on request.

CONNECTION, STEAM-HEATED MACHINE 50-140 kPa*	
Total connected power (kW), (WD-B 500)	14.4
Total connected power (kW), (WD-B 600)	16
Total connected power (kW), (WD-B 700)	18
Total connected power (kW), (WD-B 800)	19
Total connected power (kW), (WD-B 900)	28
Main fuse 400 V 3N~ (A), (WD-B 500 - WD-B 600) **	35
Main fuse 400 V 3N~ (A), (WD-B 700 - WD-B 800) **	50
Main fuse 400 V 3N~ (A), (WD-B 900) **	63
Max. connection area 400 V 3N~ (L1-L3, N, PE) Cu (mm²), (WD-B 500 - WD-B 800)	35
Max. connection area 400 V 3N~ (L1-L3, N, PE) Cu (mm²), (WD-B 900)	63
Steam connection (external thread), (WD-B 500 - WD-B 600)	R1"
Steam connection (external thread), (WD-B 700 - WD-B 800)	R1¼"
Steam connection (external thread), (WD-B 900)	R1½"
Condensing water connection (internal thread)	R¾"

* Electrically heated drying zone.

** Other connection voltages on request.

CONNECTION, STEAM-HEATED MACHINE 150-250 kPa	
Total connected power (kW), (WD-B 500)	4.8
Total connected power (kW), (WD-B 600)	6.4
Total connected power (kW), (WD-B 700 - WD-B 800)	8.8
Total connected power (kW), (WD-B 900)	11.8
Main fuse 400 V 3N~ (A), (WD-B 500 - WD-B 600) *	20
Main fuse 400 V 3N~ (A), (WD-B 700 - WD-B 900) *	25
Max. connection area 400 V 3N~ (L1-L3, N, PE) Cu (mm²), (WD-B 500 - WD-B 900)	35
Steam connection (external thread), (WD-B 500 - WD-B 600)	R¾"
Steam connection (external thread), (WD-B 700 - WD-B 800)	R1"
Steam connection (external thread), (WD-B 900)	R1¼"
Condensing water connection (internal thread)	R¾"

* Other connection voltages on request.

WATER, DRAIN AND VENTILATION CONNECTIONS	
Water quality, hardness (°dH)	2-7
Hot water connection 55-70°C (external thread)	R ¾"
Cold water connection 5-12°C (external thread)	R ¾"
Drain connection, PP pipe (ø mm)	50
Water capacity, pressure (kPa)	300-600
Water capacity, flow (litres/min.)	18
Floor drain, capacity (litres/sec)	3
Heat load to the room, sensible (kW) (WD-B 500 - WD-B 600)	6
Heat load to the room, sensible (kW) (WD-B 700 - WD-B 800)	7
Heat load to the room, sensible (kW) (WD-B 900)	9
Heat load to the room, latent (kW) (WD-B 500 - WD-B 600)	4
Heat load to the room, latent (kW) (WD-B 700 - WD-B 800)	4,5
Heat load to the room, latent (kW) (WD-B 900)	6
Heat load to the room, total (kW) (WD-B 500 - WD-B 600)	10
Heat load to the room, total (kW) (WD-B 700 - WD-B 800)	11,5
Heat load to the room, total (kW) (WD-B 900)	15
Capacity blower heat recovery (m³/h) (WD-B 500 - WD-B 600)	600
Capacity blower heat recovery (m³/h) (WD-B 700 - WD-B 800)	800
Capacity blower heat recovery (m³/h) (WD-B 900)	1000

SIZE AND WEIGHT FOR TRANSPORT *	
Size part 1 (LxWxH (m)), (WD-B 500) **	3.4x1.1x2.0
Size part 2 (LxWxH (m)), (WD-B 500) **	2.35x1.1x1.55
Weight part 1 (kg), (WD-B 500) **	780
Weight part 2 (kg), (WD-B 500) **	440
Size part 1 (LxWxH (m)), (WD-B 600) **	3.2x1.1x1.5
Size part 2 (LxWxH (m)), (WD-B 600) **	3.3x1.1x2.1
Weight part 1 (kg), (WD-B 600) **	550
Weight part 2 (kg), (WD-B 600) **	700
Size part 1 (LxWxH (m)), (WD-B 700) **	4.2x1.1x1.5
Size part 2 (LxWxH (m)), (WD-B 700) **	3.7x1.1x2.1
Weight part 1 (kg), (WD-B 700) **	750
Weight part 2 (kg), (WD-B 700) **	700
Size part 1 (LxWxH (m)), (WD-B 800) **	4.2x1.1x1.5
Size part 2 (LxWxH (m)), (WD-B 800) **	4.3x1.1x2.1
Weight part 1 (kg), (WD-B 800) **	770
Weight part 2 (kg), (WD-B 800) **	820
Size part 1 (LxWxH (m)), (WD-B 900) **	5.2x1.1x1.5
Size part 2 (LxWxH (m)), (WD-B 900) **	4.3x1.1x2.1
Weight part 1 (kg), (WD-B 900) **	1000
Weight part 2 (kg), (WD-B 900) **	820

* Normal delivery in two parts; delivery in more parts available as option.

** Including packaging.

Wexiödisk

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.

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Representative: BF Engineering Services LTD, Rekal doo, Agroznanje doo, Fastus ehf,
M/s Aishwarya Consolidates Pvt Ltd, Nakanishi Mfg Co Ltd, Martin Food Equipment Ltd
Compiler of technical documentation: Magnus Ericsson

Our machines are manufactured 2012 in accordance with applicable EU directives and we declare under sole responsibility that the following products:

Single tank dishwashers with accessories:
WD-4x, WD-6x, WD-7, WD-PRM6/7

Pot wash machines:
WD-12, WD-90x, WD-100GR

Tunnel dishwashers with accessories:
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 dishwashers*:
WD-B xxx, WD-xxCT, WD-40BRE, ACS-38/47

Special dishwashers*:
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

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).

For products marked with *
EN 60 204-1 Machine safety: electrical equipping of machines: general requirements

For other products
EN 60 335-1 Safety of household and similar electrical appliances - General requirements.
EN 60 335-2-58 Specification for safety of household and similar electrical appliances. Particular requirements. Commercial electric dishwashing machines.
EN 50106 Safety - Particular rules for routine tests.

EU Declaration of Conformity
according to EU's EMC-directive 2004/108/EC.
Harmonised standards
EN 61 000-6-2 Electromagnetic compatibility (EMC). Generic standards. Immunity standard for industrial environments.
EN 55 014-1 Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. (EMC) - Part 1: Emission

Växjö 2012-01-02

Torsten Nyberg
Managing Director