Operating and Installation Instructions

Laboratory Glassware Washer
PG 8527 / PG 8528

To prevent accidents and appliance damage, read these instructions before installation or use.
## Contents

**Maintenance** ..................................................... 47  
Process validation ................................................... 48  
Routine checks ....................................................... 48  
Cleaning the filters in the wash cabinet ............................ 49  
  Cleaning the fine filter ......................................... 49  
  Cleaning the flat filter ......................................... 49  
  Cleaning the filter system for the circulation pump .......... 50  
Cleaning the spray arms ............................................. 51  
Cleaning the control panel and glass door (optional) .......... 52  
Cleaning the exterior ................................................ 52  
Cleaning the wash cabinet ......................................... 52  
Cleaning the door seal .............................................. 52  
Baskets and inserts .................................................. 53  
Report printer (optional) ........................................... 54  
  Replacing the print paper ...................................... 54  
  Replacing the ribbon cartridge ................................ 54  
**After sales service** ................................................. 55  
**INSTALLATION INSTRUCTIONS** .................................. 57  
**Electrical connection** ............................................. 58  
**Plumbing** .......................................................... 59  
**Technical data** .................................................... 61  
**Caring for the environment** ..................................... 62
This machine conforms to current safety requirements. However, inappropriate use can lead to personal injury and property damage. Read the operating instructions carefully before using this machine.

Keep these instructions in a safe place and pass them on to any future user.

Use

➤ This machine is designed for commercial use and for specialized applications only, as described in these Operating Instructions. Do not use for purposes other than those for which it was designed, as this could be dangerous.

➤ This machine is intended for indoor use only.

➤ The installation of this unit in non-stationary locations must be performed by a qualified installer or service agency in strict accordance with national and local safety regulations and standards.

Please pay attention to the following notes to maintain safe procedures.

➤ The machine should be commissioned and maintained only by a Miele Service Technician. Repairs by unqualified persons could be dangerous.

➤ Do not install the machine in an area where a danger of explosion or freezing may be present.

➤ Be certain this appliance is properly installed and grounded by an authorized technician. To guarantee the electrical safety of this appliance, continuity must exist between the appliance and an effective grounding system. It is imperative that this basic safety requirement be met. If there is any doubt, have the electrical system checked by a qualified technician.

➤ A damaged machine is dangerous. Turn off the machine immediately at the power switch and call the Miele Service Department.

➤ Personnel operating the machine should be trained regularly. Children and untrained personnel must not be allowed access to the machine or its controls.
IMPORTANT SAFETY INSTRUCTIONS

▶ Take care when handling liquids such as detergents, neutralizing agents, wetting agents and rinse aids. These may contain irritant or corrosive ingredients, acids or alkalis. Never use any organic solvents, as the danger of explosion exists. Wear protective gloves and goggles. The manufacturer's safety conditions must be observed at all times.

▶ The water in the machine must not be used as drinking water.

▶ Be careful when sorting items with sharp pointed ends. Position them in the machine so that you do not hurt yourself or create a danger for others.

▶ When using this machine regard the high temperatures and be especially careful not to scald or burn yourself. When opening the door bypassing the electrical lock, a danger of burning, scalding and corrosion exist. Let mobile units, inserts and cleaned items cool before touching them. Any water which may remain in containers will be very hot and must be emptied into the wash cabinet.

▶ If you are exposed to toxic vapors or processing chemicals, consult the manufacturer's material safety data sheets for emergency procedures.

▶ Always allow mobile units, modules, inserts, and loads to cool before removing. Be sure to empty any water from concave items into the wash cabinet before removing.

▶ After drying with the drying unit open the door to allow the items and inserts to cool.

▶ If the pre-heater has been programmed to "Pre-heater standby", be particularly careful of hot water and steam when opening the door. Danger of burning or scalding. The water inlet pipe to the wash cabinet is located, as viewed from the loading side, underneath the basket runner on the left hand side.

▶ Steam heating is permissible up to a pressure of 145 psi. This corresponds to a water steam temperature of 354°F (179 °C).

▶ Never clean the machine near or with a water or high pressure hose.

▶ Before servicing, disconnect the power supply by either removing the fuse, unplugging the unit or manually "tripping" the circuit breaker.

⚠️ Mount on non-combustible floors only!
The following points should be observed to assist in maintaining quality standards for critical labware and to avoid damage to the loads being cleaned.

▶ Only use process chemicals that are approved by their manufacturer for the application involved. Any negative effects on labware and the washer itself are the liability of the chemical manufacturer.

▶ If toxic chemicals may be present in the wash cabinet, beware of this risk when interrupting a program and opening the washer. The door seal and steam condensor must always be checked for soundness.

▶ Use only Miele approved cleaning agents with this machine. Use of unsuitable cleaning agents could adversely affect the components of the machine. Damages resulting from using unsuitable cleaning agents are not covered by the warranty.

▶ Pre-treating (e.g. with cleaning agents), certain soiling and cleaning agents with a chemical interaction, can cause foam. For pre-treatment and/or cleaning only use low-sudsing detergents which have been approved by Miele. Suds can have an adverse effect on the operation of the machine.

▶ When a chemical additive is recommended, the manufacturer of the machine takes no responsibility for the effect of the chemical on the items being cleaned.

▶ The machine must only be operated with water and the recommended cleaning agents. Organic solvents must not be used in the machine as there is the danger, under certain circumstances, of explosion and damage to rubber and synthetic materials. Follow the dosage recommendations of the cleaning agent’s manufacturer.

▶ In critical applications where very high requirements have to be met, it is strongly recommended that all the relevant factors for the process, such as cleaning agent, quality of water, etc. are discussed with the Miele Applications Specialists.

▶ If the cleaning result is subject to particularly stringent requirements (e.g. chemical analysis, specialized processes), a regular quality control test should be carried out by the user to ensure that the required standards of cleanliness are being achieved.

▶ The mobile units and special inserts should only be used for their specific application.

▶ Empty any containers or utensils before arranging them in the machine.

▶ Do not allow any remains of acids, solvents or corroding ferrous material, and in particular hydrochloric acid or chloride solutions to get into the wash cabinet. Similarly avoid any materials with a corrosive effect. The presence in compounds of any solvents should be minimal, (especially those in hazard class A1).
To avoid any corrosion damage ensure that solutions or steam containing hydrochloric acid do not come in contact with the stainless steel casing of the machine.

Please follow the installation advice in these instructions and the separate Installation Instructions.

Using accessories

Only specific additional equipment made by Miele should be connected to this machine. Consult a Miele Application Specialist on the type and application of such equipment.

Only Miele mobile units, modules and inserts should be used. If equipment from another manufacturer is used, Miele cannot ensure the cleaning results. Damage or injury caused by this are excluded from the warranty.

Disposal of an old appliance

When discarding a labwasher, disconnect it from the power supply and cut off the power cord. For environmental and safety reasons ensure the machine is completely drained of any residual water and cleaning agent. (Observe safety regulations and wear safety goggles and gloves). Make the door lock inoperative or remove the door completely, so that children cannot accidentally shut themselves in. Make appropriate arrangements for the safe disposal of the machine.

Machines with a tank system: remove the water from the tank before disposing the machine.

SAVE THESE INSTRUCTIONS
Description of labwasher

The Miele PG 8527/ 8528 Laboratory Glassware Washer is designed for high-throughput, centralized wash areas. This unit is ideal for cleaning both large volumes of small items, and difficult to clean large items.

**Typical applications include:**

- laboratory equipment for research and production,
- laboratory equipment for analytical and preparation applications,
- microbiology and biotechnology labware,

Labware can include anything from evaporation dishes to centrifuge tubes.

In these operating instructions, the general terms labware and glassware are used to cover a range of laboratory equipment and medical items.

For standardized results, it is preferable to machine-wash lab instruments and equipment.

The cleaning parameters should always be optimally matched to the type of soiling and labware involved. The processing chemicals used also should be matched to the particular cleaning needs / analysis / analytical methods involved.
Loading side

1. Housing unit for Drying System DS and/or Steam Condensor SC
2. "Profitronic" electronic control system (see "Programming manual")
3. Multiport
4. Main Switch "On/Off"
5. Barcode scanner mount (optional)
6. Service panel
7. Docking station for transfer cart MF 27/28
8. Lift door (closed)
Guide to the labwasher

Loading side

1. Lift door (open)
2. Connection for transfer cart and modules
3. Lower spray arm
4. Filter combination
5. Container for dispensing systems
   DOS 1 - DOS 4
Unloading side (PG 8528 only)

1. Lift door (closed)
2. Service panel with docking station for transfer cart MF 27/28
3. Multiport
4. Barcode scanner mount (optional)
5. Printer (optional)
6. "Door" button
7. Display
Guide to the labwasher

Electronic controls
Guide to the labwasher

1. **On/Off button**
   turn washer on and off

2. **Door button**
   open and close the door

3. **Display**
   If the washer is not in use, the display automatically switches off after approx. 10 min.

To turn the display back on, touch any button.

Fault messages are shown in the display, together with a corresponding number. See the "Programming manual" for more information.

4. **Optical Interface**
   used by Miele Service Technicians

5. **Start button**
   start a program

6. **Clear button**
   – return to the previous level
   – discard entry
   – cancel a program

7. and 9. **Selection buttons**
   – shift position of marking in display
   – changed marked value
   – scroll
   – retrieve menu
   – display user-defined operating parameters during program operation

8. **OK Button**
   - confirm marked menu item or selected value,
   - erase fault messages,
   - erase dialogue messages,
   - access A₀-Graph during program operation.
Optional equipment

Optional modules:

- Drying unit
- Steam condensor
- Pre-heater
- Conductivity meter
- Report printer
- Barcode scanner connection
- up to 3 additional internal dispensing systems
- Glass doors and wash cabinet lighting
- combination steam/electric wash cabinet heating
Certain functions are available through the context menu at any time, regardless of the operating level:

- change display language
- change operating level,
- enter Delay Start
- for convertible washers:
  change heating type,
- loading package to arrange barcode scanner.

The current fault messages can be shown in operating level D (if available).

To enter the context menu, press and hold the ▲▼ buttons at the same time.

The context menu appears in the display:

```
<table>
<thead>
<tr>
<th>Context menu</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading package</td>
<td></td>
</tr>
<tr>
<td>Change display language</td>
<td></td>
</tr>
<tr>
<td>Change operating level</td>
<td></td>
</tr>
</tbody>
</table>
```

Use the buttons ▲▼ to move through the menu items.
Context menu

Change the display language

You can use the context menu to change the language used in the display. This setting is stored until the washer is switched off with the button or the main switch.

The language set under "Settings - Language" does not change. All reports and print-outs will continue to be completed in the system language.

To select the menu item Change display language use ▲ ▼, confirm with OK.

Select the desired language and confirm with OK.

The selected language appears in the display.

To leave the context menu, select C.

The symbol indicates the Change display language setting. If you accidently select an unfamiliar language, simply select the menu item with and select the desired language.
Change the operating level

Four operating levels are available for selection.

<table>
<thead>
<tr>
<th>Operating levels</th>
<th>Authorized access for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A and B</td>
<td>selecting from a list of approved programs.</td>
</tr>
<tr>
<td>C</td>
<td>automatic program assignment by mobile unit code.</td>
</tr>
<tr>
<td>D</td>
<td>open program selection through the Program overview, Programming and Settings menus.</td>
</tr>
</tbody>
</table>

The context menu can be used to switch between operating levels.
To help prevent unauthorized access to the settings, a code is required to change operating levels.

To change the codes for existing users, or to enter new users, you must be a registered administrator. The Administrator can be registered by Miele.

- Press and hold the ▲ ▼ buttons for at least 3 seconds.

The context menu appears in the display:

```
Context menu  B
Loading package  ........................................
Change display language  ................................
Change operating level  ...................
```
Select the menu item **Change operating level**, confirm with **OK**.

Select the user

<table>
<thead>
<tr>
<th>User ABC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
</tr>
<tr>
<td>Technical Service</td>
</tr>
</tbody>
</table>

Select the user group and confirm with **OK**.

Enter the required code.

Select **C** to exit the Context menu.

If an incorrect entry is made, **Code invalid** will appear in the display.

The message can be cancelled with **OK**.

Repeat the process to change the operating level.
**Delay start**

The start time for a program can be pre-selected.

- Select **Delay start** and confirm.

- To activate the Delay start option, go to the menu item **Activate** and select **Yes**.

<table>
<thead>
<tr>
<th>Delay start</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate</td>
<td>Yes</td>
</tr>
<tr>
<td>Delay start</td>
<td></td>
</tr>
</tbody>
</table>

- To use this feature, select **Delay start** and confirm.

The start time menu will appear.

<table>
<thead>
<tr>
<th>Delay start</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5:48</td>
</tr>
</tbody>
</table>

- Enter time of day

- Select ▲▼ to enter the desired start time, then confirm.

- Press and hold the ◀C until the **Main menu** appears in the display.

- Select **Program overview** to select a program.

<table>
<thead>
<tr>
<th>Program overview</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE DS-FINE</td>
<td></td>
</tr>
<tr>
<td>LAB-STANDARD</td>
<td></td>
</tr>
<tr>
<td>LAB-UNIVERSAL</td>
<td></td>
</tr>
</tbody>
</table>

- Select a program.

- Start with ◊.
The selected program, the delay start time, the current time of day, and the time remaining until the program starts are displayed.

<table>
<thead>
<tr>
<th>LAB-STANDARD</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start time</td>
<td>5:15</td>
</tr>
<tr>
<td>Remaining time</td>
<td>1:55 h</td>
</tr>
</tbody>
</table>

The selected program automatically starts at the delay start time.

- To cancel the automatic program start, press \( \text{C} \).

<table>
<thead>
<tr>
<th>Cancel start time?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

- Select Yes and confirm.

The automatic program start is canceled. The display reverts to the program overview. The Delay Start option is canceled.

If you select No, the Delay Start option will continue.

Once the program has run through, the function Delay Start is automatically deactivated.

The function Delay Start can also be deactivated independent of a program start. To do so, go to the Delay Start menu, and set the parameter Activate to No.
Change the heating type
In convertible labwashers, you can use the context menu to change the heating type - e. g. from electric to steam heating.

- Select **Steam/Electric**, confirm with **OK** to activate.
- Change the heating type as desired, e. g., **Steam + Electric**, confirm with **OK**.

The new heating type is saved.
- To leave the context menu, use ◄C.

Current faults
The current fault messages can be shown in operating level D.

- Select the menu item and confirm with **OK**.

The current fault messages are displayed.
- Use **OK** to scroll through the fault messages.
- To leave the context menu, select ◄C.

Loading package
If a barcode scanner is activated and installed to the machine, loading packages can be arranged in the context menu under **Loading package**.

See "Barcode scanner" for more information.
In operating level C the AWK (optional) attributes a fixed program place to a mobile unit with valid coding. Program places 1-15 are reserved for the AWK automatic mobile unit recognition.

The unit coding (on the mobile unit) and the program place with the corresponding program (in the "Profitronic" electronic control unit) must match.

- Each mobile unit must be coded before being used for the first time. See "Mobile unit coding".

- The wash program through which the mobile unit is coded has to be assigned to the relevant program place.

For program place changes, see the Programming Manual.

**Important!**
Before starting the program with the "Start" button, check that the program needed for this mobile unit is displayed. Otherwise insufficient wash results may occur! Always check that programs for mobile units with AWK (on fixed program places) are not exchanged.

Mobile unit coding

The automatic mobile unit recognition feature assigns a program place to a mobile unit. The mobile units must be coded with a magnetic strip, via a bit combination. In operating level C the only program available for a coded mobile unit is the one assigned to the corresponding program place.

When a coded mobile unit is inserted in the machine and the door closes, the automatic mobile unit recognition selects the assigned program. Be sure no small items connect to the magnetic strip.

- Press 🔄 to start the program.

The coding is made up of 5 bits:
- Bits 1 to 4 define the mobile unit code,
- Bit 5 serves as a control (Parity-Bit).

Bit 6 controls the volume of water intake and the circulation pump for mobile units with side coupling. This setting cannot be changed! Mobile units without side coupling are coded with tracks which do not contain Bit 6!
Mobile unit coding strip

15 different codes can be set. They are assigned to program places 1 to 15.

Under "System function - Selector switch organization" the matching programs have to be put into the first 15 program places.

<table>
<thead>
<tr>
<th>Program place</th>
<th>Bit 1</th>
<th>Bit 2</th>
<th>Bit 3</th>
<th>Bit 4</th>
<th>Bit 5 Parity-Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

The coded total must be an even number. Bit 6 is not included in this calculation.

If the coded total equals an odd number the message CHECK MOBILE UNIT RECOGNITION will appear. If the mobile unit code equals 0, the message NO MOBILE UNIT RECOGNITION will appear. In both cases the program cannot be started. The mobile unit recognition must be reset.

Setting mobile unit coding

To set or alter the coding of a mobile unit with automatic recognition (AWK) proceed as follows:

1. Unscrew the track with an AWK (allen wrench) and remove it from the retainer.

2. Remove the magnetic strip from the track.
Automatic mobile unit recognition (AWK)

- Set the program place coding.

- Place the track in the holder of the mobile unit and screw firmly in place.

- Put the magnetic strip back in the track.

**Important:**
The magnetic strip must be placed in the track so that the Bit coding, set according to the chart, is visible through the round windows of the track.

Bit 6 is not an integral part of the modifiable magnetic strip. Make sure that you code mobile units with side coupling to a track where Bit 6 is set to 1. Mobile units without side coupling must be coded with a track that does not have Bit 6.

The magnetic strips for the PG 8527 / PG 8527 are **black**.
The labwasher can be fitted with a variety of mobile units, baskets and inserts, depending on the cleaning application desired.

**Check before cleaning**
- Are the items to clean correctly sorted, loaded and connected?
- Are the spray arms clean and can they rotate freely?
- Is the filter combination free of coarse soiling? Clean if necessary.
- Is the adapter to the water inlet in place? The spray arms correctly connected?
- Are the detergent and neutralizer containers full?

**Check after cleaning**
- Check the cleaning results visually.
- Perform protein analytical checks, e.g. with the Miele test kit.
- Are the jets and connections securely connected with the mobile unit / inserts?
Loading tips

Select mobile units, baskets and inserts appropriate for the application.

- Load the items to be washed so that water can access all surfaces. This ensures that they will be properly cleaned.
- Do not place items to be cleaned inside other pieces where they may be concealed.
- Hollow vessels such as beakers, measuring cylinders, flasks, etc. should be inverted and placed in the correct inserts so that water can flow in and out unrestricted. A cover net can be used to reduce the risk of movement during the wash process.
- Use a cover net (e.g. an A 2) or mesh tray to secure small and/or lightweight items to prevent them from blocking the spray arms or being caught in the magnetic strip on the automatic mobile unit recognition system.
- Deep based items should be placed at an angle to allow water to run off easily.

- Tall, narrow pieces should be placed in the center of the baskets. This ensures good water coverage.
- Mobile units with an adapter must engage correctly.
- Engage inserts correctly into the module carts.
- The spray arms must not be blocked by tall items or items which hang down in their path. If necessary, manually rotate the arms to test.
- Petri dishes and the similar should be placed in the correct insert with the soiled side facing the center.
- Insert pipettes with the pointed end downwards.
- Quarter inserts should be placed as close to the middle of the unit as possible.
- Glassware should not stick out of the door area.
Laboratory glassware (LG)

Wide-necked glassware, such as wide necked erlenmeyer flasks and petri dishes or glassware with a cylindrical form, e.g. test tubes, can be cleaned inside and out with the rotating spray arm. General glassware such as beakers, conical flasks, petri dishes, test tubes, etc. can be arranged in full-size, half or quarter inserts in an empty basket with spray arms. Mobile injector units are available for direct injection spraying of narrow necked flasks, pipettes, etc.

The following instructions relate only to basic preparation and loading of glassware.

Loading the machine

Removing excess soils

- Empty all glassware before loading into the machine. Take any hygienic measures necessary to avoid infection.

⚠️ Ensure that no acid or solvent residues, especially hydrochloric acid or chlorides get into the wash cabinet.

- Remove all agar residues from petri dishes.
- Remove blood clots and residues from test tubes, etc.
- Remove all stoppers, corks, labels, sealing wax residues, etc.
- Small parts such as stoppers and taps should be secured in suitable basket inserts.

E 940 Injector mobile unit

Contains two levels, for narrow necked laboratory glassware (can also be used without the upper level).
Use only detergents and neutralizers specially designed for labwashers. Always observe the manufacturer’s recommendations for use.

The labwasher can be fitted with a maximum of 5 internal dispensing systems. They are color-coded to match the dispensing pumps to the corresponding siphon tubes.

<table>
<thead>
<tr>
<th>Dispensing system</th>
<th>Color coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>blue</td>
</tr>
<tr>
<td>2</td>
<td>white</td>
</tr>
<tr>
<td>3</td>
<td>red</td>
</tr>
<tr>
<td>4</td>
<td>green</td>
</tr>
<tr>
<td>5</td>
<td>yellow</td>
</tr>
</tbody>
</table>

Depending on the application(s) chosen for this machine, the appropriate amounts of detergent and neutralizer are dispensed through these systems.

The washer comes equipped, as standard, with two internal dispensing systems:

- Dispensing system DOS 1 for use with alkaline products, e.g., liquid detergents. The dosing rate is 200 ml/min.
- Dispensing system DOS 3 for use with acidic products, e.g., neutralizers. The dosing rate is 105 ml/min.

Up to three additional dispensing systems can be installed optionally:

<table>
<thead>
<tr>
<th>Dosing rate</th>
<th>Product(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>465 ml/min</td>
<td>alkaline</td>
</tr>
<tr>
<td>200 ml/min</td>
<td>alkaline</td>
</tr>
<tr>
<td>105 ml/min</td>
<td>acidic</td>
</tr>
</tbody>
</table>

Instead of the internal dispensing system, up to five external dispensing systems can be connected to the washer.

For special applications, the external dispensing systems can be activated, in addition to the internal systems.
Dispensing systems

Four 10 l containers of processing chemicals can be placed behind the service panel in the washer. Any additional containers will need to be set up outside the washer.

⚠️ Use caution when handling processing chemicals. These products can cause irritation and burning. Always follow all applicable safety procedures and observe the manufacturer’s instructions. Use protective eye wear and gloves.

Message "Fill DOS [X] container"

- Refill or replace the container indicated in the display.

Fill the container(s) when you are prompted in the display, e.g., Fill DOS1 container. This will prevent containers from becoming completely empty and needing to be primed (cleared of air).

Adding liquid detergents and neutralizers

- Open the service panel, then lift it up and out at the bottom.
Adding liquid detergents and neutralizers

- Remove the container from the washer.
- Unscrew the siphon tube and remove it.
- Fill the container with the required product.

- Insert the siphon tube into the container opening and screw it into place.

Once the containers have been filled, the message clears from the display.

Message "Check dispensing system [X]"

The currently running program pauses.

- Check the container(s) and dispensing hoses indicated in the display.
  Refill or replace as needed.

Containers and dispensing systems that are not in use can be shut off, to avoid fault messages in the display (see "Machine function - Container inquiry" in the Programming manual).

Priming the dispensing system

Whenever a container has been allowed to completely empty, it must be primed (cleared of air) after refilling.

- Select the corresponding service program, e. g., DOS1-FILL.
- Press the start button.
Main Switch - On/Off
The main switch disconnects the labwasher from the power supply.

- Turn the main switch to I-ON.

Once the start procedure is completed, the labwasher is ready to for use.

The following message may appear: **Fault 2218**: "New power frequency 50 Hz Flow rate automatically adjusted" or "New power frequency 60 Hz Flow rate automatically adjusted".

During the start procedure, the Profitronic system detected a different power frequency, and adjusted the flow rate of the dispensing pump accordingly.

Before operation, you will need to check if the change in power frequency was caused by a fault in the power supply.

If so, incorrect amounts of processing chemicals would be dispensed during the program.

The fault message can only be confirmed in operating level D and in the service mode.

Turning On

- Press and hold the  button.

The activating time for the  button can be set to a maximum of 10 seconds (see "System functions - On/Off button activation time" in the Programming Manual).

Depending on the set operating level, the following will appear in the display:

<table>
<thead>
<tr>
<th>Operating levels</th>
<th>Displayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A and B</td>
<td>A list of approved programs.</td>
</tr>
<tr>
<td>C</td>
<td>Instructions for Automatic Mobile Unit recognition.</td>
</tr>
<tr>
<td>D</td>
<td>Select from:</td>
</tr>
<tr>
<td></td>
<td>– Program Overview</td>
</tr>
<tr>
<td></td>
<td>– Programming</td>
</tr>
<tr>
<td></td>
<td>– Settings</td>
</tr>
</tbody>
</table>

If the washer is not in use, the display automatically switches off after approx. 10 min.

To turn the display back on, touch any button.
Opening and closing the door

Press the button.

The door opens or closes.

To open the door on the **clean side** (PG 8528), note the following:

- programs with a process requirement must have been completed without faults according to the program parameters set,
  or
- the gate function is activated, i.e., door mechanism is set to one of the following parameters:
  - Sluice,
  - Door clean + Sluice,
  - Door unclean + Sluice.
  (see "Machine functions / Door mechanism" in the Programming manual).

⚠️ If the pre-heater has been programmed for heating, beware of hot water or steam exiting the open door. Looking from the unclean side, the inlet pipe for the pre-heater is located beneath the right basket guide rail.

Starting a program

You can find detailed and important information regarding the Miele default programs in the Program charts in the Appendix of the Programming Manual.

If a barcode scanner is connected to the labwasher and the user or load scan is activated, the selected program cannot be started until scanning has been completed. For more information see "Barcode scanner".
Operating levels A and B

A list of all selectable programs appears in the display.

- Select the desired program with ▲▼, confirm with OK.
- Press the ◇ start button.

The program begins.

Operating level D

- Select the menu item Program overview, confirm with OK.
- Select the desired program with ▲▼, confirm with OK.
- Press the ◇ start button.

The program begins.

Operating level C

⚠️ Make sure that no metallic parts or pieces are stuck to the magnetic strip or its underside. These objects can cause the coding to be misread or unreadable.

- Push the coded basket into place in the washer.
- Close the door ◀ and press the start button ◇.
- The program begins.
Program sequence

Once started, the program proceeds automatically. The program steps are shown in the display.

Detailed information on the program sequences is available in the "Programming Manual".

⚠️ Do not change the printer paper roll or ribbon cartridge during a running program.

End of program

Once the program ends, End of program appears in the display.

Turning off

Press the ① button.

If the machine is to be left off for several days, be sure to turn the main switch to 0-OFF.

Canceling a program

A program can only be interrupted or canceled in operating levels B and D.

Press the ◄ C button.

The program is interrupted. The following prompts appear in the display:

Program Cancel (OK) or Continue (Clear)?

Confirm the program cancellation with the OK button.

Program canceled or Water drainage appears in the display.

After the water has drained away, the program sequence appears in the display.
Interrupting a program

A program can only be interrupted or cancelled in operating levels B and D.

Only interrupt a program if the door must be opened for urgent reasons, e.g., if items are moving around too much, or the cleaning performance needs to be checked.

If a program with a defined process requirement is interrupted then continued, make sure to check the display upon program completion. If the display reads Process parameter not achieved, the door was opened after process parameter monitoring began, and so the defined requirements were not achieved. If necessary, repeat the program.

In operating levels B or D

- Press the button.

The program is interrupted. The following prompts appear in the display:

Program Cancel (OK) or Continue (Clear)?

- Open the door .

Note PG 8528:
Which door can be opened depends on which setting has been programmed under "Machine Function - Automatic door" (see the Programming Manual).

The door on the unclean side can always be opened, no matter which parameter has been set.

The door on the clean side can only be opened if one of the following parameters are set:
- Sluice,
- Door clean + Sluice,
- Door unclean + Sluice.

Caution! Items in the machine may be hot. There is the danger of burning or scalding.

- Arrange items securely.
- Close the door .
- Press the button.

The program continues.
Barcode scanner (optional)

Barcode scanners can be connected to the labwasher via the multiport on the unclean side and, if available, on the clean side as well.

The configuration of the serial interface for the barcode scanner is described in the section "PC / Print functions - Serial Interface configuration" in the Programming Manual.

Barcode scan functions

All barcode scanner functions are available at every operational level:

- User scan load
- User scan unload
- Scan the load

The scanned bar codes are transmitted to the record of users and/or loads.

User scan and load scan can be activated independently of each other. Activation is described in the section "System functions - Barcode" in the Programming Manual.
**User scan load**

When **User scan load** is activated, after program selection the following message is displayed (immediately in the case of automatic mobile unit recognition on operating level C):

**Scan user**

Once the user barcode has been scanned, the program can be started.

When **Scan the load** is also activated, after the user scan you are prompted to scan the load.

**Cancelling User scan load**

User scan load can be cancelled using the ✪C key. The program overview is displayed again.

---

**User scan unload**

If **User scan unload** is activated, you will be prompted to scan the user barcode once a program has ended:

**End of program - Scan user**

The door cannot be opened until the user barcode has been scanned. Depending on the settings in the Menu Machine functions / Automatic door the door will open automatically.

**after cancelling a program with ✪C**

If **User scan unload** is activated, the following message is displayed after cancelling the program:

**Program canceled**

**Water drain**

After the water has drained, the Scan user prompt will appear:

**Scan user**

**Skip user scan for unloading**

On operating levels B and D, you can skip **User scan unload** by pressing **OK**.

At the end of the wash protocol, "Skip user scan" is printed.
Barcode scanner (optional)

Scan the load

When load scan is switched on, the following message prompts the operators to scan the load:

- Scan the first barcode of the load.

In the menu **Scan the load** the barcode numbers of the scanned load are listed.

- Scan further bar codes if applicable.

If a scanned barcode already exists, the following query appears:

**Load scanned, accept?**

A maximum of 99 load bar codes can be scanned. Then the following message appears:

**Maximum number of entries reached**

The last scanned barcode can be deleted from the list with \(<C\). To prevent unintentional removal from the list you will be prompted to confirm the deletion:

**Delete last entry?**
**Cancel load scan**

If no load was scanned, the load scan can be cancelled using $\text{C}$. The program overview is displayed again.

If load scans already exist, they must be deleted prior to cancellation. To do this, answer the query **Delete last entry** with **Yes** for each scanned load.

**Skip load scan**

On operating levels B and D, you can skip the load scan by pressing $\text{OK}$.

If you answer the query **Skip load scan?** with **No**, the program overview will be displayed.

If you answer the query with **Yes**, the program can be started by pressing $\text{ }$.

At the beginning of the wash protocol, "User scan skipped" is printed.

**Finish load scan**

- After all the load bar codes have been scanned, finish the process by pressing $\text{OK}$.
  $\text{ }$ flashes and the program can be started.

**Using loading packages**

When load scan is on, prior to program start the Profitronic verifies that at least one loading package has been saved.
Barcode scanner (optional)

If this is the case, the following message is displayed:

Use loading package?

Yes  No

■ Acknowledge the message by selecting Yes.

All loading packages are displayed:

Select loading package

1_14.02.2007_08:23
2_14.02.2007_09:11

■ Select a loading package and confirm with OK.

◊ flashes and the program can be started.

At the end of the program, the message Process parameters achieved appears and the completed program package is deleted.

The last processed loading package is not deleted:

– if the program is cancelled or if an error occurs during the program (Process parameters not achieved),
– with programs in whose program header the parameter Process information is not defined.

The next time the program is started the loading package will be processed again. It can be manually deleted or moved on the list.

If none of the saved loading packages are to be used:

■ Select No and confirm.

■ The message Scan the load is displayed.

■ Scan the load manually as described in "Scan the load".
Loading packages

Loading packages can be created to optimize the function sequences when loading the labwasher. To do this, the load scan must be activated, see "System functions - Barcode" in the Programming Manual).

After the context menu is opened and the menu item **Loading package** confirmed, the following functions are available:

- Add loading package
- Display loading package
- Delete loading package
- Move loading package
Add loading package

To create a loading package, open the Context menu, then select and confirm Loading package.

<table>
<thead>
<tr>
<th>Loading package</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move loading package</td>
<td></td>
</tr>
<tr>
<td>Add loading package</td>
<td></td>
</tr>
<tr>
<td>Display loading package</td>
<td></td>
</tr>
</tbody>
</table>

- Select and confirm Add loading package.

The following message appears:

**Scan the load**
- Scan the individual components of the load.

- Press OK to confirm the complete loading package.

Repeat the steps for further loading packages. The loading packages are stored in a list (see "Display loading packages"). The last scanned loading package is added to the end of the list.

A maximum of 50 loading packages can be stored.
If the max. amount has been reached, loading packages must be processed or deleted before further packages can be added.
Display loading package

To display the loading packages, open the context menu, then select and confirm the menu item **Display loading package**.

- Select and confirm the desired loading package. The list with all the loading packages is displayed. Each loading package is identified by a number, date and time.

<table>
<thead>
<tr>
<th>Display loading package</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1_14.02.2007_08:23</td>
<td></td>
</tr>
<tr>
<td>2_14.02.2007_09:11</td>
<td></td>
</tr>
</tbody>
</table>

- Select and confirm the desired loading package. The components of the loading package are listed in the menu **Scan the load**.

<table>
<thead>
<tr>
<th>Scan the load</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0987664</td>
<td></td>
</tr>
<tr>
<td>0983558</td>
<td></td>
</tr>
<tr>
<td>0991724</td>
<td></td>
</tr>
</tbody>
</table>

- Press ◀C to return to the menu **Display loading package**.
- Press ◀C to return to the menu **Loading package**.
Delete loading package

To delete a loading package, open the context menu, then select and confirm the menu item \textit{Loading package}.

Select and confirm \textbf{Delete loading package}.

All existing loading packages are displayed with number, date and time.

<table>
<thead>
<tr>
<th>Delete loading package</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1_14.02.2007_08:23</td>
<td></td>
</tr>
<tr>
<td>2_14.02.2007_09:11</td>
<td></td>
</tr>
</tbody>
</table>

Select and confirm the desired loading package.

The following message appears:

\textbf{Delete loading package?}

Confirm the request.

The loading package is deleted.

Press $\text{◄C}$ to return to the menu \textit{Loading package}.
Move loading package

To move a loading package, open the context menu, then select and confirm the Loading package.

■ Select and confirm the menu item Move loading package.

All existing loading packages are displayed with number, date and time.

<table>
<thead>
<tr>
<th>Move loading package</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1_14.02.2007_08:23</td>
<td></td>
</tr>
<tr>
<td>2_14.02.2007_09:11</td>
<td></td>
</tr>
<tr>
<td>3_14.02.2007_10:31</td>
<td></td>
</tr>
</tbody>
</table>

■ Select the desired loading package.
■ Press ▼ ▲ to move the loading package, and confirm.

The list will be saved in the new sequence.
■ Press ◀C to return to the menu Loading package.
Serial interface (data transfer)

Each washer comes supplied with a 16.5 ft. (5 m) interface cable and RJ45 plug, for data transfer between the Profitronic system and an external report printer or PC.

The interface cable is connected to the Ethernet interface in the washer.

The supplied cable can be used to connect the Ethernet connection of the washer to suitable network components (e.g., a hub or a switch). For a direct Ethernet connection between the washer and an external device, you will need a crossover cable.

The supplied cable can also be used to connect the washer to an external device via the RS 232 interface. An RJ45 adapter / Sub-D plug is also supplied.

Only a Miele Technician can connect a different interface.

Pin position of the RJ45 plug (Ethernet):
1 Transmit Data +
2 Transmit Data -
3 Receive Data +
4-5-7-8 empty

Pin position of the 9-pole Sub-D plug (serial interface):
5 GND ground
3 TXD transmit
2 RXD receive
7 CTS clean to send
8 RTS ready to send
1-4-6-9 empty

The interface configuration is described in the section "PC/Print functions" in the Programming manual.

Please note the following when connecting a printer or PC:
- Only use an industry-standard PC or printer.
- When installing the machine take the dimensions of the printer/PC into account.
- Any extension cable from the serial interface to the printer or PC must not exceed 32' 10" (10 m); from the Ethernet interface the maximum extension cable length is 328ft. (100 m).

For external printers, only HP LaserJets or compatible devices are acceptable.

Settings for the external printer functions are described in the section "PC/Print functions" in the programming manual.
Labwashers should undergo routine maintenance by the Miele Technical Service every 1000 operating hours or at least once every 6 months.

Maintenance covers the following:
- Electrical safety
- Door mechanism and door seal
- Screws and connections in the wash cabinet
- Water inlet and drain
- Internal and external dispensing systems
- Spray arms
- Triple filter system
- Drain pump and non-return valve
- Steam condensor
- All mobile units, baskets, and inserts

If applicable:
- Drying unit
- Connected printer

Also during maintenance, the following function checks are conducted:
- a test program is run
- wash temperatures are measured
- ensure a water tight door seal
- all safety-relevant measuring systems are checked (fault display).
Process validation
As a rule, it is the responsibility of the user to ensure that items cleaned in the labwasher meet the required standards.

Routine checks
The user must complete these checks every day before using the washer. A checklist is supplied with the washer.
Check the following points:
– the filters in the base of the wash cabinet
– the spray arms in the washer and in the mobile units and inserts
– the wash cabinet and the door seal and
– all mobile units, baskets, and inserts
Cleaning the filters in the wash cabinet

The filters in the base of the wash cabinet prevent large particles from entering the system. The filters can become clogged, they need to be checked regularly and cleaned as needed.

⚠️ Do not use the washer unless all the filters are in place.

⚠️ Beware of glass splinters, needles, etc. danger of injury.

Cleaning the fine filter

- Remove the fine filter and clean if necessary.

Cleaning the flat filter

- Remove the flat filter and clean if necessary.
Cleaning the filter system for the circulation pump

To protect the circulation pump, there are two additional filters under the flat filter.

- Pull the filters up and out of the holder to remove. Clean if necessary.
- Replace the filter combination in reverse order.

After replacing, check that all filters are properly in place.
Cleaning the spray arms

The spray arms can become clogged. Check daily and clean if needed.

- Use a sharp, pointed object to push any particles into the spray arm jets, then rinse throughly under running water.

To do so, remove the spray arms as follows:

- Remove the basket.

Labwasher spray arms

- Loosen the nut with a wrench and pull the spray arm either upward or downward.

Spray arms on basket / inserts

- Use a wrench to loosen the nut on the spray arm guide, then pull the spray arm downward.

If you notice wear and tear on the bearings or the gasket, please contact Miele.

- After cleaning, put the spray arms back in place and tighten the nut. Make sure the nut is in the proper position.

After replacing the spray arms make sure that they rotate freely.

⚠️ Make sure that no metallic parts or pieces become attached to the magnets at the ends of the spray arms. These objects can cause the spray arm rotations to be miscalculated.
Cleaning the control panel and glass door (optional)

- Press 0 to turn off the washer.
- Clean the control panel and the glass door with a damp cloth or glass cleaner. To disinfect, use an approved cleaning agent.

⚠️ Do not use abrasive or all-purpose cleaners. The chemicals contained in these products can seriously damage the surface of the glass.

Cleaning the exterior

- To clean the stainless steel exterior, use a damp cloth and dish soap, or a non-abrasive stainless steel cleaner.
- To help prevent re-soiling (fingerprints, etc.), a stainless steel conditioner can be used after cleaning.

⚠️ Do not use thinner or ammonium-based cleaners. They can damage the surface.

Cleaning the wash cabinet

The wash cabinet is mostly self-cleaning. If you notice a build-up of deposits, contact Miele.

Cleaning the door seal

To remove soiling, clean the door seal regularly with a damp cloth. Damaged or leaky door seals should be replaced by Miele Technical Service.
**Baskets and inserts**

To ensure that the mobile units, baskets and inserts function properly, they must be checked routinely. A checklist is supplied with the labwasher.

Check the following points:

- Are the rollers in proper condition, and are they securely attached to the basket / insert?
- Are the counter-nuts on the guide rails firmly secured?
- Is the basket connection correctly set and firmly screwed on?
- For baskets in the modular system, are the caps in the module connection working properly?
- Are all spray jets, spray sleeves, and hose adapters securely attached to the basket / insert?
- Are all spray jets, spray sleeves, and hose adapters unclogged so that wash water can flow through?
- Are all caps, covers, and fasteners securely attached to the spray sleeves?

If there are spray arms:

- Do the spray arms rotate freely?
- Are the spray jets clogged? See the section on "Cleaning and Care / Cleaning the spray arms".
- Are the screws in the magnet rails for Automatic Mobile Unit Recognition tightly secured?
- Are the magnets in place on the spray arm ends?
- Are the magnets on the spray arms free of attached metal parts?
Report printer (optional)

Replacing the print paper
When the red indicator light on the front panel of the printer lights, the print paper needs to be replaced.

- Open the front panel of the printer by the upper edge, and pull down.
- Remove the paper roll and spindle together from the holder, fit the new roll onto the spindle, and install them back into the printer.
- Guide the paper up and over the paper transport roller (slit behind the ribbon cartridge). Press the green paper transport button until the paper re-emerges above the ribbon cartridge.
- Guide the paper through the slit in the front panel. Shut the panel.

Replacement paper rolls (2 ¼" (58 mm) wide / outer diameter approx. 2" (50 mm) can be obtained from Miele.

Replacing the ribbon cartridge

- Open the front panel of the printer by the upper edge, and pull down.
- The ribbon cartridge is above the paper roll. Pull it forward and out of the holder and replace it with a new one. The paper must be guided between the ribbon and the cartridge housing.
- On the right, turn the small wheel for manual ribbon transport clockwise until the ribbon is taut.
- Guide the paper through the slit in the front panel. Shut the panel.

Replacement ribbon cartridges can be obtained from Miele.
In the event of a fault which you cannot easily fix yourself, please contact the Miele Technical Service Department at the address on the back of this booklet.

When contacting Technical Service please quote the serial number and model of the appliance.
INSTALLATION INSTRUCTIONS
All electrical work must be carried out by a qualified electrician in accordance with local and national safety regulations.

Installation, repairs and other work by unqualified persons could be dangerous.

The machine must only be operated with the voltage, frequency and fusing shown on the data plate.

For technical data see the data plate or wiring diagram supplied.

The data plate is on the cover plate behind the service panel of the unclean side.

The wiring diagram is secured to the inner side of the service panel.

This unit is convertible for use with steam or electric heating.

Hook up requirements are as follows:

1. Electric heat only:
   208 V 3 phase 60 HZ 60 amp

2. Steam heat only:
   without drying option
   208 V 3 phase 60 HZ 20 amp
   with drying option
   208 V 3 phase 60 HZ 30 amp

**WARNING:**
**THIS APPLIANCE MUST BE GROUNDED**
### Water connection

This machine must be connected to the water supply in accordance with all national and local plumbing codes.

⚠️ **Water in the machine is not suitable for drinking.**

The washer is constructed so that it may be connected to a water supply without an extra non-return valve, unless required by code.

Water and drain connections should be situated as close to the machine as possible, and be easily accessible.

#### Water supply pressure

- **Hot + Cold water connection =**
  - min. 22 psi - max. 145 psi
- **DI water connection =**
  - min. 9 psi - max. 145 psi

#### Recommended water pressure

- **Hot + Cold water connection =**
  - over 37 psi - max. 145 psi
- **DI water connection =**
  - over 22 psi - max. 145 psi
  to avoid long intake times

The machine cannot be operated with an inflow pressure of less than 10 psi.

The machine is supplied with 3 connection hoses 5 ft. (1.5 m) long with 3/4" (19 mm) female hose thread ends.

Large area filters, supplied with the machine, are to be installed in the hose attached to the water supply. See "Cleaning and Care - Cleaning the water inlet filters".

⚠️ **Do not shorten or damage the hoses!**

**Do not remove the filters in the hoses.**
Plumbing

Requirements

(refer to the Installation Diagram for more information)

1. Cold water connection

One ½" (13 mm) cold water supply line with a standard ¾" (19 mm) male hose thread faucet is needed. The cold water supply hose is marked with blue tape.

2. Hot water connection

One ½" (13 mm) hot water supply line with a standard ¾" (19 mm) male hose thread faucet is needed. The machine cannot be operated conventionally with a flow pressure of less than 10 psi. In this case the installation of an optional DI pump is required. The DI water supply hose is marked with green tape.

If the water pressure is below 29 psi, the intake time will increase.

If the machine will not be connected to DI water, the programs must be changed by Miele Technical Service. The intake hose stays at the rear of the machine.

3. DI water connection

One ½" (13 mm) deionized water supply line with a standard ¾" (19 mm) male hose thread faucet is needed. The DI water supply hose is marked with green tape.

DI water connection (pressure less)
1.25 - 9 psi (optional)

For connection to 1.25 - 9 psi water pressure the machine must be converted if it was not ordered from the factory as a special model. A feed pump must be installed by Miele's Technical Service Dept.

The discharge nipple of the DI water container (pressure less) must be at least at the same height as the machine's upper edge.
### Technical data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>98 7/16” 250 cm (minimum room height)</td>
</tr>
<tr>
<td>Width</td>
<td>45 1/4” 115 cm</td>
</tr>
<tr>
<td>Depth</td>
<td>34 1/4” 87 cm</td>
</tr>
<tr>
<td>Weight (net)</td>
<td>approx. 1210 lbs 550 kg</td>
</tr>
<tr>
<td>Operating weight</td>
<td>approx. 1760 lbs 800 kg</td>
</tr>
<tr>
<td>Voltage (volts)</td>
<td>see data plate</td>
</tr>
<tr>
<td>Connected load (watts)</td>
<td>see data plate</td>
</tr>
<tr>
<td>Current (amps)</td>
<td>see data plate</td>
</tr>
<tr>
<td>Air pressure connection</td>
<td>85 psi 600 kPa (required for steam operation)</td>
</tr>
<tr>
<td>Steam connection:</td>
<td></td>
</tr>
<tr>
<td>with Electric TA</td>
<td>36 - 145 psi / 284 - 356°F (140 - 180 °C)</td>
</tr>
<tr>
<td>with Steam TA</td>
<td>36 - 87 psi 1/ / 284 - 327°F (140 - 164 °C)</td>
</tr>
<tr>
<td>Water pressure (flow rate)</td>
<td>30 - 145 psi over pressure</td>
</tr>
<tr>
<td>Cold, hot, and deionized (DI) water</td>
<td>up to max. 158°F (70 °C)</td>
</tr>
<tr>
<td>Room temperature</td>
<td>41 - 104°F (5 °C to 40 °C)</td>
</tr>
<tr>
<td>Altitude above sea level</td>
<td>up to 4921 ft. (1500 m)²</td>
</tr>
<tr>
<td><strong>CE</strong>mark</td>
<td>MPG Guidelines - 93/42/EEC, Class IIa</td>
</tr>
</tbody>
</table>

1) At a steam pressure of 36 - 43 psi (250 - 300 kPa), the drying unit reaches a maximum drying temperature of 194 - 212°F (90 - 100°C).

2) If the machine is installed above 4921 ft. (1500 m), the wash water will boil at a lower temperature. This may require you to change the program parameters depending on the wash and rinse temperatures selected.
Caring for the environment

Disposal of the packing materials
The cardboard box and packing materials protect the appliance during shipping. They have been designed to be biodegradable and recyclable.

Ensure that any plastic wrappings, bags, etc. are disposed of safely and kept out of the reach of children. Danger of suffocation! Please recycle.

Disposal of an old appliance
Old appliances may contain materials that can be recycled. Please contact your local authorities about recycling in your area.

Ensure that the appliance presents no danger to children while being stored for disposal. See "Important Safety Instructions".
Please have the model and serial number of your appliance available before contacting Technical Service.

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