

Installation plan

PLW 8636

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For safe installation and commissioning of the washer-disinfector please read the installation plan, the service documentation and the operating instructions.

This installation plan includes the dimensions of the washer-disinfector, the technical data and the installation requirements to be met on the customer's site.

The machine's equipment will vary by version and can be expanded with additional options. The installation plan describes the maximum equipment configuration.
Certain connections are not required for every equipment version.

Installation requirements

This machine must only be installed and commissioned by the Miele Customer Service Department or a suitably authorised technician.

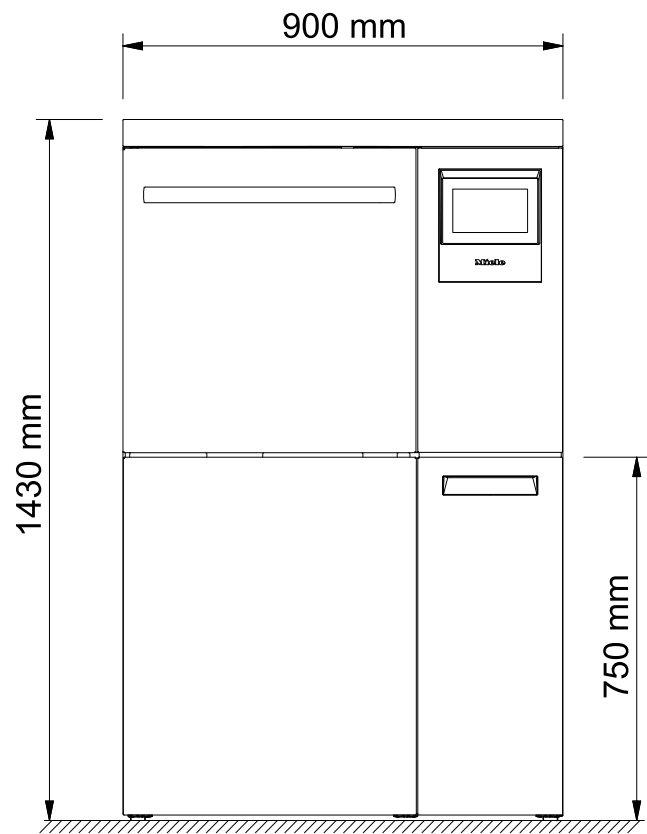
Installation should only be performed in accordance with valid regulations, relevant standards and health and safety codes.

Definition of terms

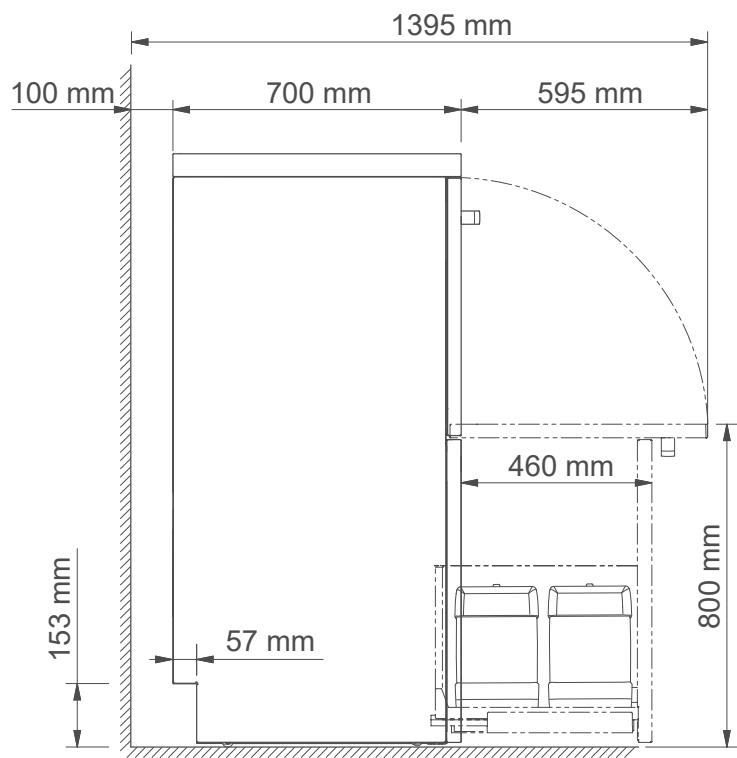
- | | |
|--------------------------|---|
| Cleaning machine | In this installation plan, the washer-disinfector is referred to as "the machine". |
| Wash water | The term "wash water" refers to water or to a mixture of water and process chemicals. |
| Load items | The term "load items" is used wherever the items to be processed are not defined in any further detail. |
| Process chemicals | All media dispensed during a programme sequence are generally referred to as process chemicals, e.g. cleaning agents. |

Appliance dimensions

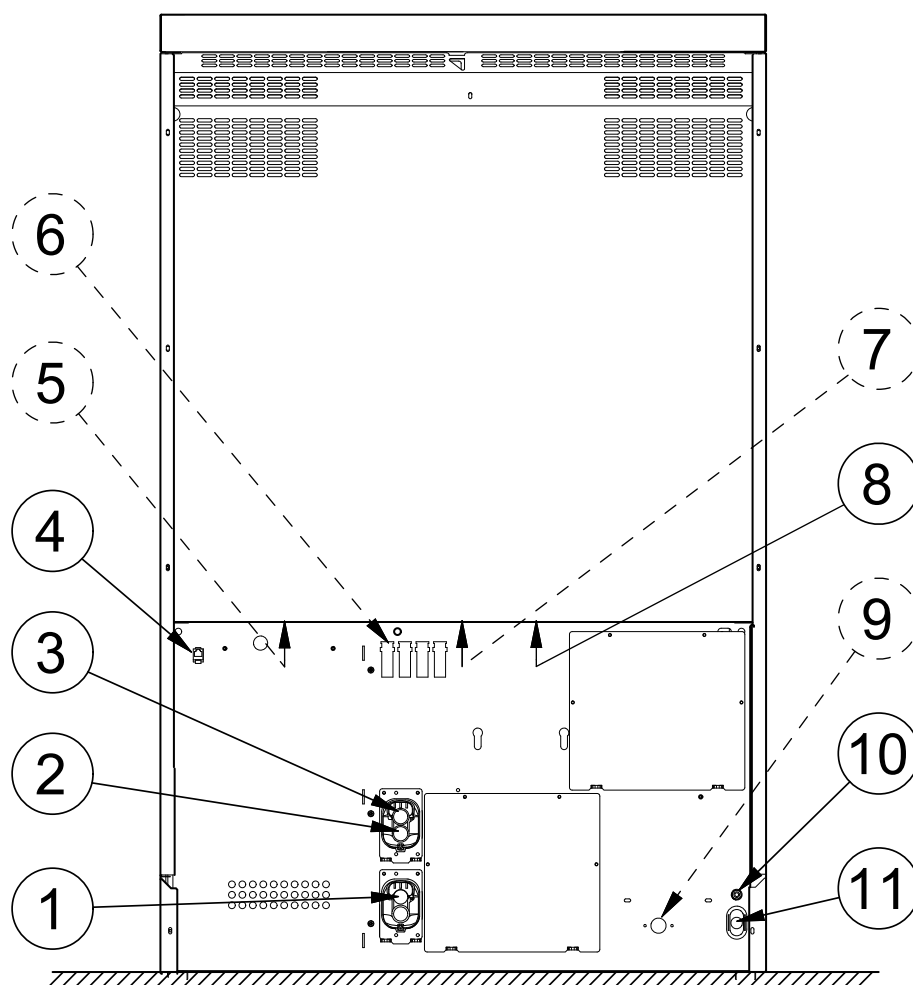
Front view



Side view

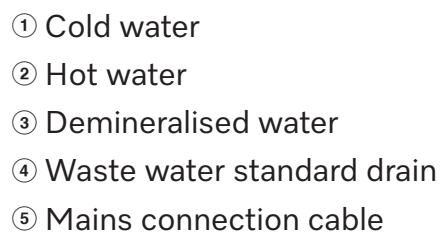


Rear view



- ① Cold water
- ② Hot water
- ③ Demineralised water
- ④ Data cable for the Ethernet plug
- ⑤ Potential-free contacts (optional)
- ⑥ Hose connection for external containers for process chemicals (optional)
- ⑦ Waste water recycling drain (optional)
- ⑧ Waste water standard drain
- ⑨ Water inlet with feed pump (optional)
- ⑩ Equipotential bonding
- ⑪ Mains connection cable

On-site connections



Environmental requirements

Condensation can build up in the area surrounding the machine. Any furniture and fittings in the room must therefore be suitable for purpose.

Wall gap

There must be at least 100 mm between the rear of the machine and a wall or partition in the room.

Electrical connection

All work on the electrical connection must be carried out by Miele Customer Service or a qualified electrician.

The customer's installation of the machine must comply with over-voltage category CAT II in accordance with IEC 61010-1.

The mains voltage must not fluctuate by more than $\pm 10\%$ around the nominal voltage.

Main switch

Install a main switch on the customer's site that is capable of disconnecting the machine at all poles. The main switch must:

- Have a contact gap of at least 3 mm
- Be designed to operate at the rated current of the machine
- Be able to be locked in the zero position
- Be accessible after the machine has been installed

The mains connection cable must be laid protected from the risk of thermal damage.

Plug connection

The machine should be connected to the electricity supply via a CEE socket.

Hard-wired

Alternatively, the machine can be connected via a hard-wired connection.

Residual current device (RCD)

For added safety, every machine should be protected by an RCD type B with a trip current of 30 mA.

The RCD must be installed so that it is easily accessible.

Equipotential bonding

The washer is able to accommodate equipotential bonding. The connection screw (M 8) is located on the rear of the machine.

Equipotential bonding should be carried out if possible on the customer's site.

Electromagnetic compatibility (EMC)

The machine has been tested for EMC (electromagnetic compatibility) in accordance with EN 61326-1 and is suitable for use in commercial facilities, e.g. in laboratories and laboratory-like areas in the industrial sector.

The machine is a Class A appliance suitable for use in all areas other than domestic areas and areas directly connected to a low voltage supply network that supplies residential buildings.

The machine's high frequency (HF) energy emissions are very low and are therefore unlikely to interfere with other electronic machines in the vicinity.

Flooring at the installation site must be wood, concrete or tiled. Synthetic flooring must be able withstand a relative humidity level of at least 30 % to minimise the risk of electrostatic discharges.

Warning note

This machine is not intended for use in residential areas and cannot ensure adequate contactor protection for radio signal reception in such environments.

Network connection

The machine can be integrated into a customer's network via an Ethernet interface. An Ethernet cable of category 5 (CAT5) or higher is required for the connection.

The operator is responsible for the secure configuration and operation of the network. Creating a secure configuration reduces the scope for the machine to be attacked. Non-secure configurations can make it easier for potential attackers to gain unauthorised access.

⚠ Unauthorised access poses a risk.

Settings in the machine may be changed as a result of unauthorised access via the network.

Under no circumstances should it be possible to access the machine via public or unsecured networks, either directly or indirectly (e.g. using port forwarding).

The IP addresses from 192.168.10.1 to 192.168.10.255 are reserved for Customer Service. They must never be set in the internal network.

Please also note the following recommendations for the network configuration of the machine:

1. Configure the network in which the machine is located with as many restrictions as possible:
 - Only allow machines or persons access to the network if absolutely necessary
 - Use a VLAN for network segmentation, for example
2. Make sure to create a secure configuration for all appliances connected to the network, e.g. with the help of:
 - The information on network security in the operating instructions for the connected machines
 - The recommendations of the German Federal Office for Information Security (<https://www.bsi.bund.de>)
3. Pay particular attention to the following areas:
 - User management
 - Staff entering and exiting
 - Authorisation
 - Authentication
 - Update management, etc.

Water connection

Water inlet

UK installation requirements:

The double non-return valve supplied with this product must be installed between the stopcock and the water inlet hose.

Screw the double non-return valve onto the stopcock. Then screw the water inlet hose with the water protection system onto the thread of the double non-return valve.

The machine must only be connected to fully vented pipework. A brief increase in the water pressure can damage components of the machine.

The quality of the incoming water must at least correspond to the drinking water specification of the country in which the machine is being operated.

The machine must be connected to cold and hot water. If hot water is not available, the inlet hose for hot water must be connected to the cold water supply. To be able to use the programmes supplied by the factory, a DI water connection is also required.

The connections with stopcocks at the customer's site must have 3/4" flat-sealing external threads.

The stopcocks must be accessible after the machine has been installed.

DI water ring line

The machine can be connected to a ring line system for DI water. For this purpose, a retrofitting kit with potential-free contacts must be installed in the machine by Miele Customer Service or an authorised technician and the control system must be set accordingly (see section "Connecting external systems").

Feed pump (optional)

The water inlet of the machine can be connected to an external tank, e.g. for DI water or recycling water. For this purpose, the machine must be retrofitted with a feed pump. The feed pump may only be installed by Miele Customer Service or an authorised technician.

Drainage

The machine should be connected to a separate on-site drainage system for the washer only. If a separate connection is not available, we recommend connecting the hose to a dual-chamber siphon. The waste water pipes must be temperature-resistant to at least 93 °C. If the hose is to be fitted directly to the drainage system on site, use the supplied hose clip.

The on-site connector for the drain hose can be adapted to different hose diameters. If the connector extends more than 30 mm into the drain hose, it must be shortened. Otherwise, the drain hose can become blocked.

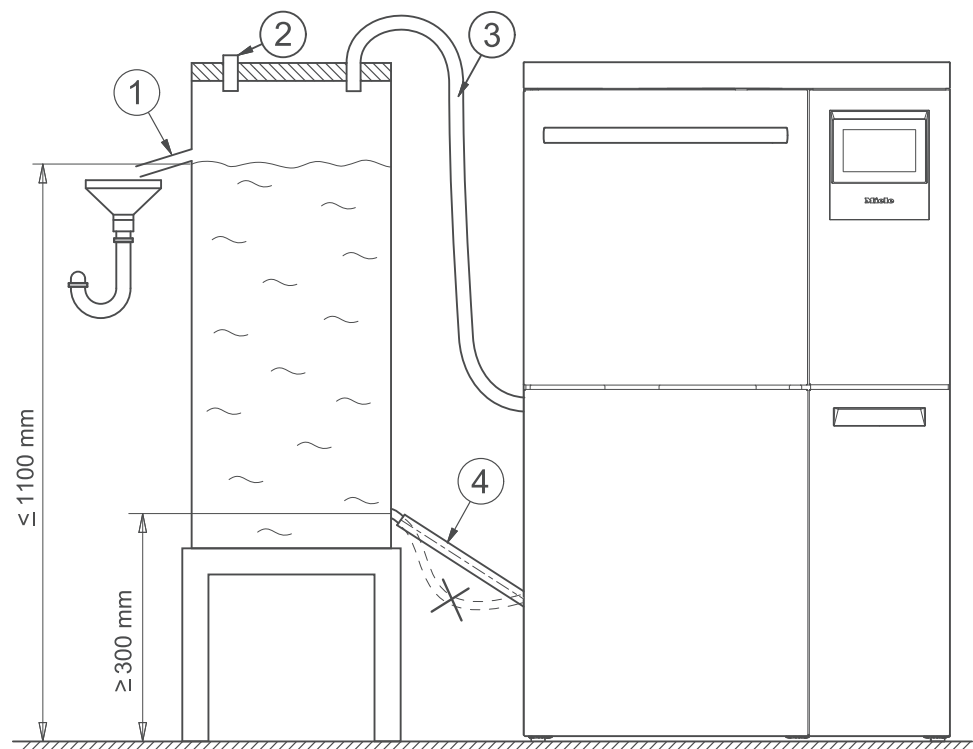
Lay the drain hose so that it does not kink and is not being subjected to pressure or tension.

External tank (optional)

The machine can be fitted with a feed pump for the water inlet and a second drain pump for the water outlet. This optional equipment can be used to execute the following processes, for example.

1. Process without recycling, water inlet via feed pump:
The entire process is carried out with fresh water. A water inlet is provided via the feed pump from the external tank, e.g. demineralised water or osmosis water.
2. Process without recycling, water drainage into external tank:
The entire process is carried out with fresh water. The waste water, e.g. from the pre-wash and cleaning blocks, is pumped into the external tank and can be disposed of separately.
3. Process with recycling of rinse water:
In the process, the waste water from the most recent rinse blocks, for example, is pumped into the external tank and used for cleaning and neutralisation in the next programme sequence.
4. Process with recycling of wash water (water and process chemicals):
In the process, the waste water from the rinse block, for example, is pumped into the external tank and used for cleaning in the next programme sequence.

Installation example



- ① Tank overflow
- ② Tank ventilation
- ③ Waste water recycling drain (optional)
- ④ Water inlet with feed pump (optional)

Installation notes

Prerequisites	The tank is installed next to the machine. The following conditions must be met:
Water inlet	<ul style="list-style-type: none">- The tank must be ventilated- The tank must be covered or fitted with a suction strainer in front of the outlet nozzle to prevent foreign objects from entering the water circuit of the machine- The water level in the tank must not be higher than 1100 mm above the floor- The outlet nozzle from the tank must be at a height of at least 300 mm above the floor- The inlet hose must be installed with a constant gradient between the tank and the machine to prevent an air bubble from forming in front of the feed pump
Drainage	<ul style="list-style-type: none">- The tank must be ventilated- The water level in the tank must not be higher than 1100 mm above the floor- The tank must be fitted with an overflow- The distance between the overflow of the tank and the outlet of the recycling drain hose must be at least 100 mm- Above the overflow, the tank must be able to hold at least a further 25 l, which corresponds to the maximum volume of the water drain from another wash block- The maximum delivery head from the machine into the tank is 1200 mm- The drain hose of the machine must be secured so that it cannot slip out of the tank

External containers for process chemicals (optional)

The DOS drawer of the machine has space for 2 containers with a capacity of 10 litres or 3 containers with a capacity of 5 litres. Additional containers must be placed outside the machine. To connect these containers, the machine must be fitted with a retrofitting kit. The length of the connection line and the dispensing hose from the back of the machine is 1.7 m.

Place the container next to the machine on the floor or in an adjacent cabinet. The container must not be placed on the machine.

Connecting external systems (optional)

The machine can be equipped with a retrofitting kit with potential-free contacts for connecting external systems. The 4 inputs and 6 outputs can be used to query operating statuses and control external components.

The assignment of the inputs is fixed. Input 1 is currently not in use. The voltage at the inputs must be 24 V DC -15 %/+20 %.

The assignment of the outputs can be modified, see table "Potential-free outputs". The voltage at the outputs of a plug can be either 24 V DC or 200–240 V AC.

The same voltage must be used at all the outputs.

Damage to the relay contacts

The outputs must not be loaded with more than 1 A to protect the relay contacts from damage.

In order to be able to switch higher ratings, additional external coupling relays or contactors must be used at the customer's site.

Inputs 1–4

1. Not used
2. Programme start not possible
3. Programme cancellation
4. Message

Potential-free outputs

Parameter	The contact is activated ...
Off	—
Status: Operation	When the machine is switched on
Status: Fault	When a fault is present
Status: Program. running	When a programme is running
Stat.: Pause in pro. block	In the pause section of the programme
Status: Program. finished	At the end of the programme
Status: Fan level 1	When the drying unit is active at level 1
Status: Fan level 2	When the drying unit is active at level 2
Intake: Cold	During water intake through the set valve
Intake: Hot	
Intake: Demineralized	
Intake: Recycling	
Drain: Standard	When standard water drainage is active during the programme sequence
Drain: Recycling	When recycling water drainage is active during the programme sequence
DOS 1	When dispensing pump 1 is active
DOS 2	When dispensing pump 2 is active
DOS 3	When dispensing pump 3 is active
DOS 4	When dispensing pump 4 is active

Technical data

Dimensions

Height	1430 mm
Width	900 mm
Depth including 100 mm wall clearance	800 mm
Depth including handle and 100 mm wall clearance	840 mm
Depth with open door including 100 mm wall clearance	1395 mm

Weight

Net weight	200 kg
Max. operating weight	310 kg
Maximum load capacity of open door	50 kg
Maximum load capacity of appliance lid	25 kg
Max individual load (5 cm ² foot)	608 N
Max. surface load (load-bearing capacity of floor)	5 kN/m ²

Electrical connection

Voltage	3N AC 400 V
Frequency	50 Hz
Fuse rating	3 x 16 A
Heater rating	7 kW
Total rated load	9.2 kW
Mains connection cable length	2.7 m
Mains connection cable cross-section	5 x 2.5 mm ²
Connection	-
Overvoltage category (according to IEC 60664)	II
VDE radio suppression, EMC equipment class (according to DIN EN IEC 55011)	A
VDE electrical safety	IEC 61010-1, IEC 61010-2-240

Water inlet

Water connections	
- Cold water	1
- Hot water	1
- Demineralised water	1
Water temperature	
- Cold water	5–20 °C
- Hot water	5–65 °C
- Demineralised water	5–65 °C
Connection hose length	1.3 m
Connection at the customer's site with stopcock, flat-sealing external thread	3/4"
Water connection pressure	200–1000 kPa
Flow rate	3 l/min
Water hardness	0–10.7 mmol/l
Demineralised water	
- Recommended conductivity	<15 µS/cm
- Chloride content	<100 mg/l
- pH value	5–8

Drainage

Drain hose length	1.3 m
Max. drain hose length	3.8 m
Max. delivery head from floor	1,7 m
Max. water temperature	93 °C
Max. transient flow rate	50 l/min
Hose inner diameter (Ø)	22 mm
Waste water pipe	≥ DN 100

Technical data

External tank

Water inlet from machine to tank

Drain hose length	1.3 m
Max. drain hose length	3.8 m
Max. delivery head from floor	1.2 m
Max. water temperature	93 °C
Max. transient flow rate	50 l/min
Hose inner diameter (Ø)	22 mm

Requirements for the tank

Min. height of outflow connection	300 mm
Max. water level height	1100 mm
Tank volume	Nominal volume + 25 l reserve

Dispensing

Max. delivery head	0.75 m
Length of dispenser hose, back of machine to suction lance	approx. 1.7 m

Emission values

Sound pressure level

Sound pressure level LpA during cleaning and drying	<65 dB(A) re 20 µPa
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Heat dissipation

Heat output into the room	4.32 MJ/h
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Operating conditions

Ambient temperature	5–40 °C
Relative humidity:	
Minimum	10 %
Maximum, for temperatures up to 31 °C	80 %
Linear decreasing for temperatures up to 40 °C	50 %
Max. altitude above sea level	2000 m *

* If installed above 1500 m, the boiling point of the wash water will be lower. In this case, Customer Service must adjust the disinfection temperature and the holding time.

Storage and transportation conditions

Ambient temperature	-20 – +60 °C
Relative humidity	10–85 %
Air pressure	500–1060 hPa
Weight including packaging	226 kg
Maximum floor load on transport route	3.2 kN

Site access dimensions including transport pallet

Height	1593 mm
Width	1080 mm
Depth	850 mm

Manufacturer:

Miele & Cie. KG
Carl-Miele-Straße 29
33332 Gütersloh
Germany

Manufacturing site:

Miele & Cie. KG
Mielestraße 2
33611 Bielefeld
Germany

Internet: www.miele.com/professional