

**Eloma Combi Steamer
Multimax B, Genius T
Electric units**



Genius T 6-11

Genius T 10-11

Genius T 20-11

Genius T 12-21

Genius T 20-21

Installation and Technical Connections



Dear Customer,

These installation instructions apply to Eloma's Multimax B and Genius T electrical appliances. Please read the installation and operating instructions in full before starting up the appliance and make sure to pay particular attention to the safety information.

Attention!

The named standards are valid for Germany in all other countries follow the local standards and valid instructions. Damages based on installation not complying with the directives given hereunder are not covered by warranty terms.

Check for any transport damage.

Should there any signs of transport damage, inform your dealer / freight forwarder immediately.

For information and tips please contact:

Eloma GmbH . Innovative Koch- & Backtechnik
82216 Maisach / Germany Otto-Hahn-Str. 10. Tel.: +49 (0) 8141 395-0 Fax: +49 (0) 8141 395-130

For our cooking forum and user tips, visit our website at www.eloma.com.

User hotline: +49 (0) 35023 63887

Service

You can reach us practically around the clock, 7 days a week, 365 days a year:

Your service hotline: +49 (0) 35023 63888

For information on liability for material defects and warranty conditions, please consult our general terms and conditions of business (T&C).

eloma

Eloma GmbH D-82216 Maisach

Appliance model:.....

Appliance Nr.:.....

Dealer:

Installer:

Date:.....

Installed on:.....

Table of contents

1.	Safety information	4
2.	Equipment set up	6
2.1	Installation instructions:.....	6
2.2	Hints for setting up	7
2.3	Removal of protecting film from the floor models	7
2.4	Noise level.....	7
2.5	Exhaust air	7
2.6	Heat emission into the area	7
3.	Water supply	7
3.1	In coming water supply quality.....	8
3.2	Hard water / cold water connection	9
3.3	Diagram of connection	9
3.4	Water connection for fresh water with water softener	9
3.5	Water connection for Osmosis / Softened water and fresh water	9
3.6	Water connection for Osmosis / Softened water	9
3.7	Water pressure.....	10
3.8	Max. flow rate.....	10
3.9	Water hardness conversion table	10
4.	Autoclean (Optional Equipment)	10
5.	Drain connection	11
6.	Electrical connection Potential equalisation.....	12
6.1	Connection Data	12
	Dimensioned sketch Combi Steamer.....	13

Version 1.1 Article No. EL0973017 F€2013

Pictograms/symbols used



Danger!

Immediate dangerous situation, that can endanger severe injury or death.



Warning!

Possibly dangerous situation, that possibly can endanger severe or death.



Attention

Possibly dangerous situation, that can endanger minor injury.



Corrosive substances!



Caution: Risk of burns!



Caution: Hot steam!



Fire hazard!



Danger!

High voltage

Caution danger of life

Inobservance can endanger severe injury or death.



Do not dispose the combi steamer with domestic waste



1. Safety information

- Installing the appliance incorrectly, making incorrect settings on it or modifying it can lead to damage, injury or even death.
- Read the installation and operating instructions for the combi steamer through carefully before starting it up.

Use for intended purpose

- Eloma combi steamers may only be used for preparing food in commercial kitchens.
- Every other usage is against definition and therefore dangerous.

Method of operation

- The combi steamer enables you to prepare food goods using the best possible cooking chamber environment.
This means the ability to adjust temperature and humidity levels exactly as required for each type of food good.
- At the same time, the required cooking method can be selected using the Scout feature on the operating panel.
- The cooking chamber temperature can be set as required to between 30°C and 300°C, and the humidity level to between 0% and 100%. The large number of setting options available enables a wide range of cooking methods to be used.
- The combi steamer is ideal for *steaming, stewing, roasting, baking, grilling, gratinating, poaching, regenerating, defrosting* and much more.

Operation

- Keep this manual in a place where it can be accessed by all users of the appliance at any time.

The combi steamer must only be operated

- By trained staff
- For its intended purpose as outlined in the operating instructions, and whilst in perfect working order.
- To prevent the risk of accidents or damage to the appliance, it is essential that operating staff are given training and health and safety briefings on a regular basis.
- If the machine is set up outside, it must be ensured that it is adequately protected from rain, thunder storms and lightening. It must be set up on a solid foundation to ensure stability.
It must also be ensured that the machine is only accessible for qualified personnel.

The appliance must not be operated

- By children or persons with impaired physical, sensory or mental abilities, or by persons who do not have the requisite experience and/or knowledge, unless they are being supervised by a person who is responsible for their safety or are receiving instructions in how to use the appliance from this person.
- At an ambient temperature of $< +4^{\circ}\text{C}$
- In toxic atmospheres or atmospheres where there is a risk of explosion
- With food containing highly flammable ingredients (e.g. alcohol)



- Only authorised customer service personnel may open the side wall and carry out repairs and maintenance work.



Risk of injury Installation

- Please refer to the installation instructions for precise information on how to install the appliance.
- Only authorised customer service personnel may install appliances, put them into operation and perform maintenance work on them.



Appliance defects

- If the glass part of the door is damaged, the appliance must not be started up. Contact customer service.
- If malfunctions occur, disconnect the appliance from the mains and close the water shut-off valve. Contact customer service.



Notes on maintenance

- To keep the appliance in perfect working order, an authorised service partner should carry out maintenance work on it at least once a year.
- We recommend that you agree a maintenance contract for this purpose.
- If the appliance is not going to be used for a prolonged period, turn it off, disconnect it from the mains and close the water tap.



Before turning on

- Before closing the oven door make sure that the pans and grids inside are securely in place to avoid damages to the door glass.
- If the combi steamer has been transported at outside temperatures of $< +4^{\circ}\text{C}$, the appliance's safety temperature limiter may have been triggered. This must be reset by a qualified electrician.
- Lock the air baffle in place. Never reach behind the air baffle during operation and never attempt to stop fans manually.
- Lock the rack or mobile tray rack in place correctly.
- When opening and closing the door take care to leave enough space for yourself and other people to avoid possible injuries.



Hand shower with automatic pull-back

- Pull the hand shower out until you hear it click; this means that it is locked in the correct position for operation.
- To retract the hose, pull it out until it stops making a clicking noise.
- The hose will retract automatically. Water will only flow when the hose is locked in the correct position for operation.
- You should only ever allow the shower head to slide back into its resting position slowly.



Notes on maintenance

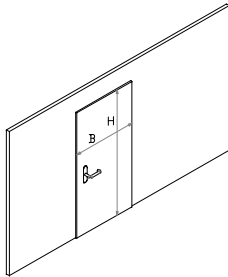
- To keep the appliance in perfect working order, an authorised service partner should carry out maintenance work on it at least once a year.
- We recommend that you agree a maintenance contract for this purpose.
- If the appliance is not going to be used for a prolonged period, turn it off, disconnect it from the mains and close the water tap.

2. Equipment set up



Transport of units

- Use elevating truck or fork–lift truck for transport. Transport only on pallets.
- Observe door width and door height when transporting the units.



Typ	6-11	10-11	20-11	12-21	20-21	6/6/UG	6/10	6/10/KH2
B (mm)	1050	1050	1100	1520	1520	1050	1050	1050
H (mm)	1060	1340	2140	1720	2160	2110	2110	2335

- Damaged equipment may not be installed.

2.1 Installation instructions:



- To prevent injury, always lift the appliance off the pallet with the aid of a second person → risk of crushing.
- Follow the local regulations and observe the instructions for the installation of kitchen and shop equipment.
- Remove all cartons, packing materials, documents from the interior cabinet.
- No heat or steam sources may be installed underneath the oven.
- There must not be any sources of heat or moisture underneath or in the immediate vicinity of the appliance (such as deep fat fryers or portable stoves).
- In case of installation close to materials that risk burning, observe the instructions of fire prevention.
- Minimum distance from sources of heat and moisture: 500 mm.
- When using deep fat fryers or portable stoves next to the appliance, make sure that they are kept at a suitably safe distance from it (based on the radius of action of the shower head). There is a serious risk of the operator sustaining burns if water is sprayed into hot fat.
- The equipment must be secured against tilting and falling down.
- The machine may only be set up in a location with adequate lighting for users.

Recommended minimum clearance

- We recommend to install the ovens on top of original Eloma lower racks/supports or else Eloma warming cabinets WU 14. In case of installations on top of worktables, ensure sufficient stability and load capacity.

Table top models

- It is mandatory to set up the appliance in horizontal position. True up minor unevenness with the vertically adjustable feet.

Distance to right wall and backside wall: min. 50 mm.

- Weight of the Table models:

6 x 1/1	10 x 1/1
130 kg	170 kg

Floor models

- Floor models must invariably be operated with the trolley, also when preheating and cleaning.
- Observe the load capacity of the floor. Is the installation location accessible regarding the appliances measurements.

- Weight of the floor models.

12 x 2/1	20 x 1/1	20 x 2/1
350 kg	300 kg	500 kg

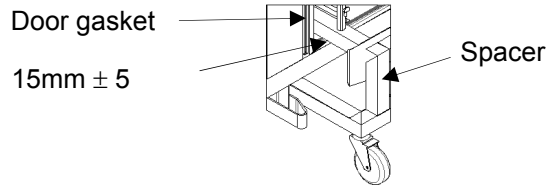
Distance to left wall: min. 125 mm.

- Floor models need at least 500 mm clearance to the left side, to ensure access for service. We recommend 800 mm, it is then possible to park the trolley on this side.
- For maintenance and easy access to the unit for service operations use flexible water and electric connections.
The appliance should be removable approximately 1 meter from its standard position.

2.2 Hints for setting up



- The floor underneath the appliance must be plane to ensure a smooth driving-in of the trolley (roll-in pan-rack).
- The trolley must be pane in the unit.
- Fix the appliance after adjusting the level and angle, so that the oven can't shift anymore.
- There should be a minimum distance of 15 +/- 5 mm between the trolley and the top edge of the oven cavity bottom.
- The trolley must never touch the door gasket and must be level with the appliance.



2.3 Removal of protecting film from the floor models

- Prior to starting the machine, the protective film must be removed from side, back and cover surfaces. Use special cleaner to clean to perfection.
- Do not operate the oven with the adhesive film.

2.4 Noise level

- The emission value of the noise level is less than 70 dB (A).

2.5 Exhaust air

- A built-in cooling function cools down water and steam of condensation, which runs down the drain. It is therefore not necessary, however recommended, to install the appliance under a ventilation hood.
- If such a hood is installed, its design and power rates should comply with the German VDI regulation 2052.

Condensation hood (option only for units with connection 208 V)

- An optional condensation hood is available for Eloma combi steamers.
- The condensation hood is controlled fully automatically via the combi steamer.
- During the cooking process, steam is condensed as it passes over air-cooled plate condensers.
- Observe the installation manual "condensation hood" for proper installation of the hood.

2.6 Heat emission into the area

Typ		6-11	10-11	20-11	12-21	20-21
Connected load	kW	9.5	18.5	36.5	21.5	43.0
latent	MJ/h	3.420	6.660	13.140	7.740	15.480
sensible	MJ/h	2.394	4.662	9.198	5.418	10.836

3. Water supply



- Local water and regulation should be adhered to at all times.
- The appliance must be connected to the drinking water supply in accordance with DIN EN 1717.
- For UK the inlet supply shall be fed via fluid backflow prevention category three arrangements such as a double check valve.
- Our entire range of Combi Steamers comply to the following water regulations WRAS and DVGW and can be connected to the drinking water supply without any other measures having to be put in place. Non-return valves are integrated within the appliance.
- Before connecting the oven to the water supply, wash out / clean the building pipe system!
- All appliances are equipped as standard with 2 water-connections for soft water and hard water.
- Both connections are under the indication plate and both must be connected.
- The appliance must be connected to the water supply using a flexible hose that conforms to EN 61770 resp. IEC 61770 with a 3/4" screw connection. The water supply hose must fulfil the local or standard hygiene requirements for hoses in drinking water systems. Ensure there is sufficient pipe length left (minimum 50cm) so as to allow for easy access when servicing the appliance.
- Install an easily accessible water shut-off-valve for every unit.
 - **None corrosive connections (couplings) must be used at all times between the water treatment equipment and the Combi Steamer, failure to do so could cause rust to form within the unit. None compliance would be a breach of the warranty conditions.**

3.1



In coming water supply quality

- Check the water quality and water hardness with your local water supply company before commencing with installation.
- The Incoming water quality should not exceed the following limits. With water it is necessary to know about the ingredients and their effects.

total hardness:	≤ 3° dH
pH- value:	7,0 bis 8,5
conductivity:	≤ 90 µS/cm
Cl ⁻ :	Max. 60 mg/l
SO ₄ :	Max. 100 mg/l
SiO ₄ :	Max. 10 mg/l
Fe:	Max. 0,05 mg/l
Mn:	Max. 0,05 mg/l
Cu:	Max. 0,05 mg/l
Cl ₂ :	Max. 0,10 mg/l

Soft water connection:

- If the total water hardness is ≥ 3° dH at least one hydrogen ion exchanger must be connected upstream from the soft water connection on the machine. For our units approved filter systems are partial demineralisation filters with integrated particle and activated carbon filtration as well as a bypass.
- Among others, Brita offers adequate filter systems.
- Sodium ion exchangers (as normally used for dishwashers) are not permitted for our machines. The glass window can become dull and stainless steel components in the cooking chamber could be irreparably damaged!
- Systems with silicate metering must not be used. They can cause malfunctions and scaling in the cooking chamber.
- Systems that operate with electromagnetic fields do not protect against lime scale in this type of machine.
- If the total water hardness is < 3° dH but the water contains impurities such as sand, iron particles or suspended particles, a 5 - 15 µm fine filter must be installed upstream from the soft water connection on the machine.
- If the water is chlorinated Cl₂ in excess of 0.1 mg/l (corresponding to 0.1 ppm), an activated carbon filter must be additionally installed upstream from the soft water connection on the machine. Activated carbon filters may also be an integral part of fine filters.

Hard water connection:

- If the water contains impurities such as sand, iron particles or suspended particles, a 5 - 15 µm fine filter must be installed upstream from the hard water connection of the machine.
- If the water is chlorinated Cl₂ in excess of 0.1 mg/l (corresponding to 0.1 ppm), an activated carbon filter must be additionally installed upstream from the hard water connection on the machine.
- Activated carbon filters may also be an integral part of fine filters.

Special requirements:

- If the chloride Cl⁻ concentration is in excess of 60 mg/l (corresponding to 60 ppm) and/or the concentration of silicate (SiO₄) is ≥ 10 mg/l, there is a greater risk of corrosion. Thus the water for the entire water supply of the device must be treated with a reversed osmosis system. Make sure that the reference value of 10 µS/cm is maintained, as totally pure water is too aggressive and would cause severe damages.
- Reverse osmosis systems can be an alternative to full and/or partial demineralisation systems. Reverse osmosis systems remove almost all water-hardening substances and non-hardening minerals from the water.
- If a combination of filters and water treatment system is installed, the following components must be installed in the specified order: sediment filter, hydrogen ion exchanger with activated carbon filter, shut-off valve.

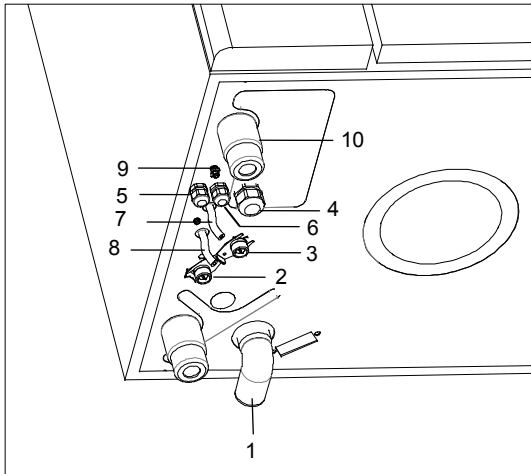


Regular maintenance on every type of water treatment unit is vitally necessary. Damages to Eloma machines resulting from neglect of maintenance will void warranty claims.

3.2 Hard water / cold water connection

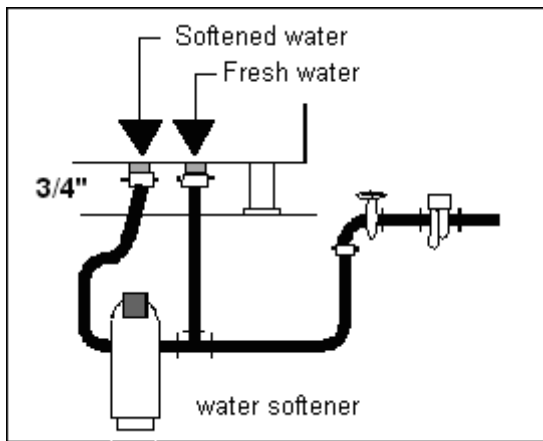
- Cold water connection for cooling down the condensed water.

3.3 Diagram of connection

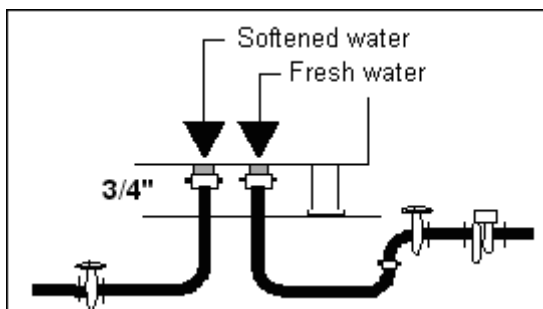


1. Drain
2. Tap (raw) water
3. Softened water
4. Power supply
5. Connection kitchen control system
6. Energy optimising
7. Connection cleaner
8. Connection rinse
9. Potential equalisation
10. Adjustment +/- 10 mm

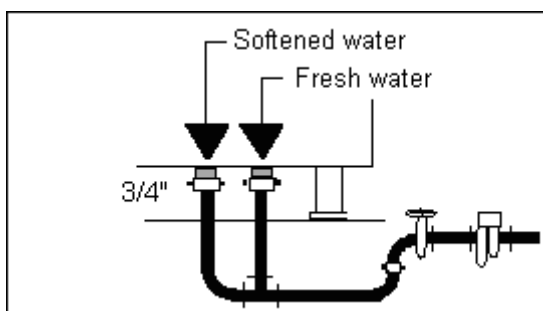
3.4 Water connection for fresh water with water softener



3.5 Water connection for Osmosis / Softened water and fresh water



3.6 Water connection for Osmosis / Softened water



3.7 Water pressure

Min. 200 kPa = 2 bar
Max. 600 kPa = 6 bar

3.8 Max. flow rate

Typ	6-11	10-11	12-21	20-11	20-21
Softened water l/h	15	20	25	40	50
Hard water l/h	55	55	55	65	65

3.9 Water hardness conversion table

1°d = 0.18 mmol/l (ISO unit)
1°d = 10 CaO
1°d = 1.79 °fH (France)
1°d = 1.25 °eH (UK)
1°d = 7.14 °H (USSR)
1°d = 1.04 °aH (USA)

4. Autoclean (Optional Equipment)

- Please use only Eloma MULTI-CLEAN spezial detergent and Eloma MULTI-CLEAN Klarspüler rinse aid for cleaning your Eloma equipment. The Eloma distributed detergents and rinse-aids contain special components with exact measurements that are specifically synchronized and tested for optimal results with Eloma machines.
- Other cleaning products can possibly cause irreparable rust damages in the cooking chamber, as well as damage pumps and seals.
- Eloma GmbH cannot assume liability for any damages resulting from the use of alternative products. This will void the Eloma warranty.

Connection

- Refer to the dimensioned sketch for connections of cleaning and rinse agent.
- The label on the oven indicates where the chemicals have to be connected.

Reiniger
Cleaner
Nettoyant

Klarspüler
Rinse agent
Rince-éclat

Use the supplied clamps to connect the hoses to the oven.



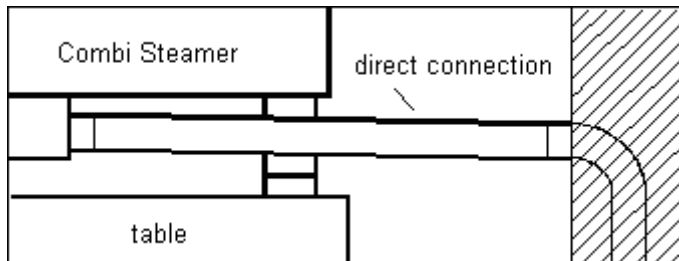
- Red for the cleaner and blue for the rinse agent
- Handling of cleaner and rinse agent: Observe the directions of the manufacturer and wear suitable protective clothing, gloves and glasses.
- Canisters must be positioned below the bottom edge of the combi steamer. They must never be positioned above this.
- Maximum vertical range from canister to connection = 1,50 m. Maximum hose length = 10 m.
- Remove the lids of the two canisters (cleaner and rinse agent) and screw the screw cap with hose to the respective canister. Red for the cleaner and blue for the rinse agent.
- Start the installation program Autoclean. Check if cleaner and rinse agent are sucked into the cooking chamber. If necessary, please repeat the Autoclean “start up” level. Autoclean is ready for use.
- To detailed data and function of Autoclean see operation manual of the combi-steamer.

5. Drain connection

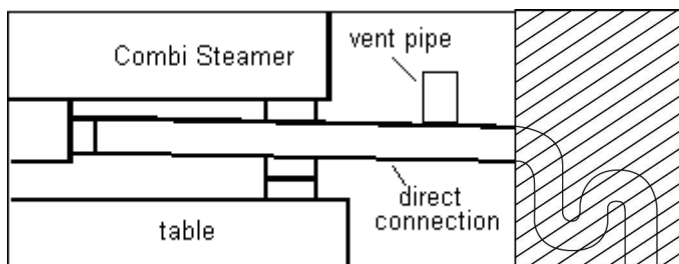


- Local water and regulation should be adhered.
- The appliance complies with the relevant regulations.
- Drain and air-vent pipe material must be steam temperature resistant. Minimum diameter 50 mm, preferably not longer than 1 m, we recommend high temperature resistant pipes. It is not permitted to taper the cross-section of the drain.
- Slope of at least 5% is necessary.
- Waste water temperature 80°C

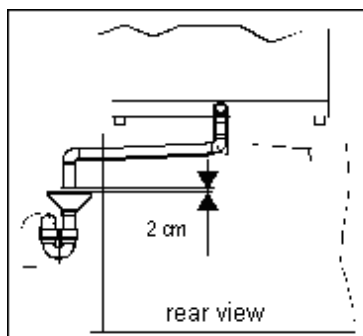
Fixed connection without trap



Fixed connection with trap



Drain fannel



The Eloma GmbH bears no liability for any damages caused by a not proper installation.

6. Electrical connection Potential equalisation



- Follow the installation instructions and the information on the rating plate when connecting the unit.
- Comply with all local regulations and standards.
- Do not connect the unit to the mains if it has just been transported from a cold environment into a warm room. Otherwise condensate may develop inside the combi steamer which may cause damages. Wait for about two hours until the unit has reached room temperature
- Electrical connections must be carried out by an approved electrician in accordance with the regulations of the local electricity supply companies.

6.1 Connection Data

Model	6-11	10-11	12-21	20-21
Voltage	Connected load kW			
208 VAC	9	19	22	42
480 VAC	9	19	22	42
No. of chambers	1	1	1	2
Supply	cord-connected	cord-connected	cord or permanently connected	permanently connected

Rating and type of overcurrent protection

Cord connected unit

Model	Min. supply cord, AWG	Attachment Plug Cap Rating	
		USA	Canada
6-11 (208V)	8	250 V, 30 A*	250 V, 50 A
10-11 (208V)	4	250 V, 60 A*	250 V, 100 A
12-21 (208V)	4	250 V, 100 A	250 V, 100 A
6-11 (480V)	14	480 V, 15 A	480 V, 20 A
10-11 (480V)	10	480 V, 30 A	480 V, 50 A
12-21 (480V)	8	480 V, 30 A*	480 V, 50 A

* For use on individual branch circuit only.

Permanently connected unit

Model	wire size	temperature rating	min. circuit amp	Rating + type of overcurrent prot.
12-21 (208V)	4AWG	75°C	61 A	70 A, dual element fuse
20-21 (208V)	2AWG	90°C	119 A	125 A, dual element fuse
12-21 (480V)	8WG	75°C	26 A	35 A, dual element fuse
20-21 (480V)	4AWG	75°C	52 A	65 A, dual element fuse

- The cross-section of the power cables must be based on the current consumption and on local regulations.
- For USA and Canada the applicable standards: NFPA 70/NEC, CSA C22.2
- Next to the appliance an all-pole electric circuit breaker with a contact opening of at least 3mm has to be provided for on site.
- Every unit requires its own connection and fuse protection.
- The appliance must be incorporated into the potential equalisation system (ground).
- In case a plug is mounted, the plug device must be accessible after setting-up.



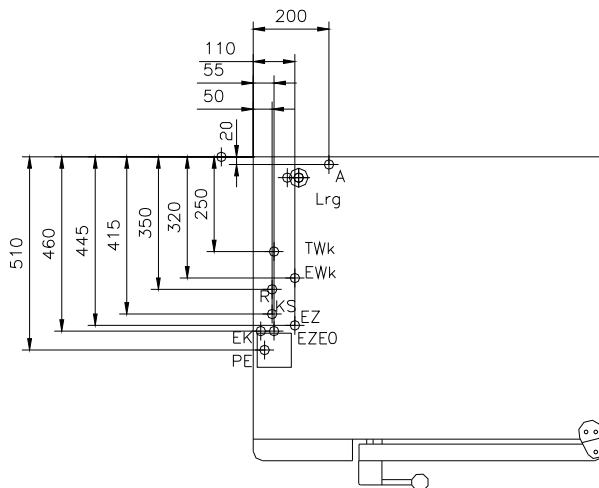
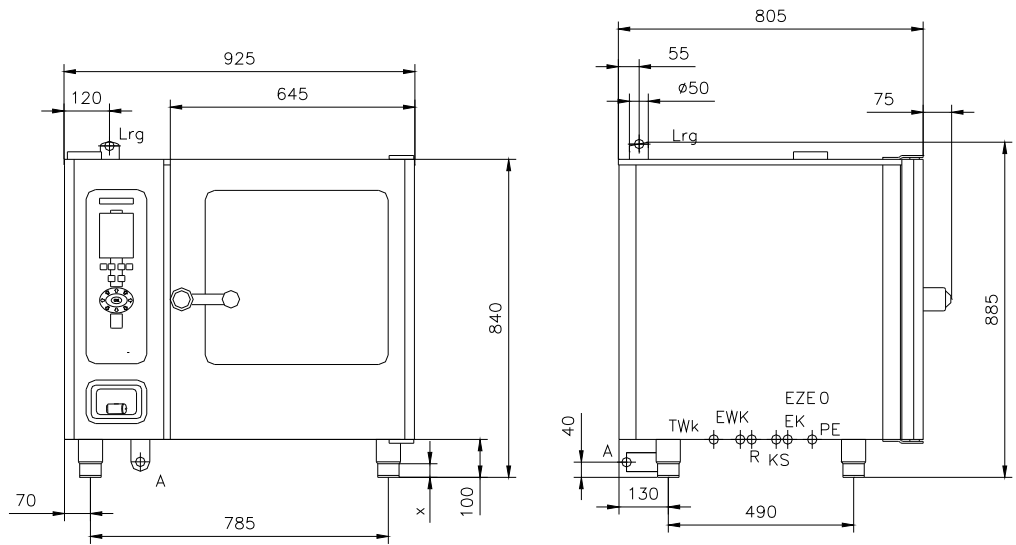
Observe the sense of rotation of the fan when connecting to the mains.

Sense of rotation: In steam-mode the fan runs clockwise, check it from the cooking chamber.

Floor models rotation: In steam-mode the upper fan runs clockwise, the lower fan runs counter-clockwise, check it from the cooking chamber.

Dimensioned sketch Combi Steamer Genius T 6-11

Housing dimensions and technical connections of models Multimax B und Genius T are identical



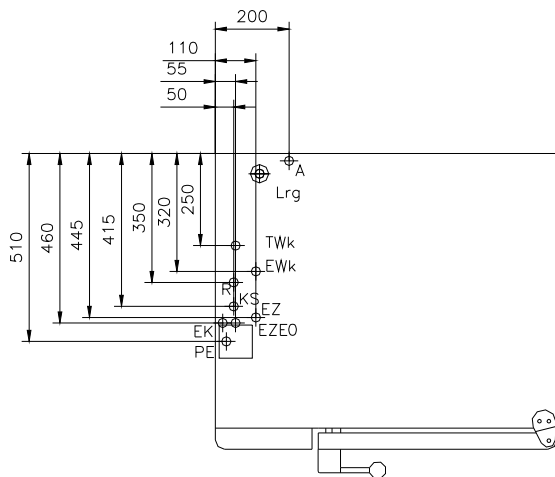
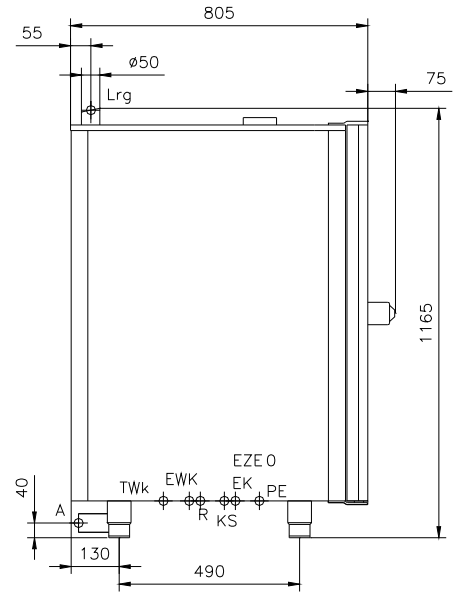
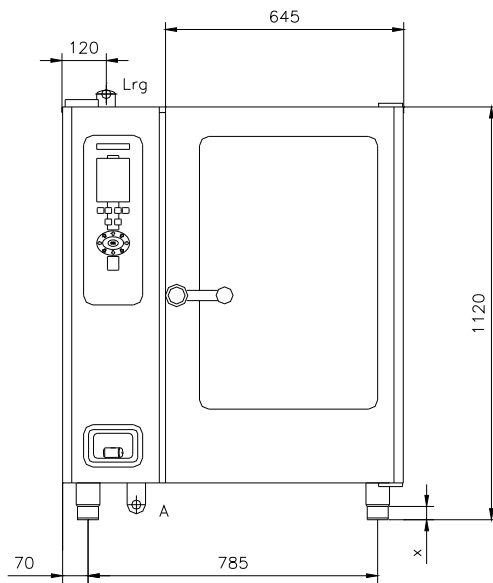
- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZEo Energy optimising
- PE Potential equalisation
- X Adjustment + / -20
- R Connection cleaner
- KS Connection rinse
- KCS Connection kitchen control system

Appliances with the door left hand side hinged are mirrored.

Technical details are subject to change!

Dimensioned sketch Combi Steamer Genius T 10-11

Housing dimensions and technical connections of models Multimax B und Genius T are identical



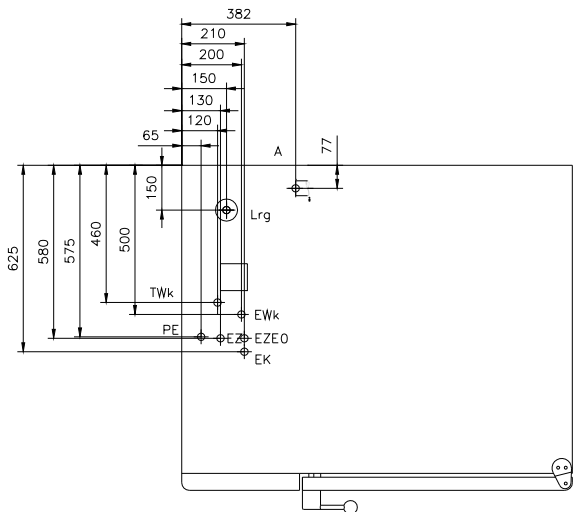
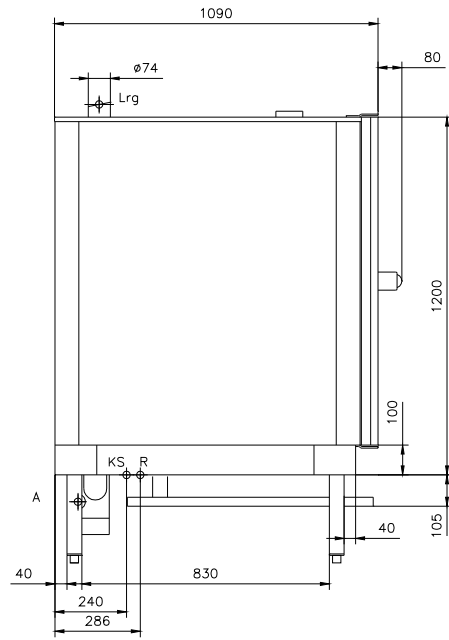
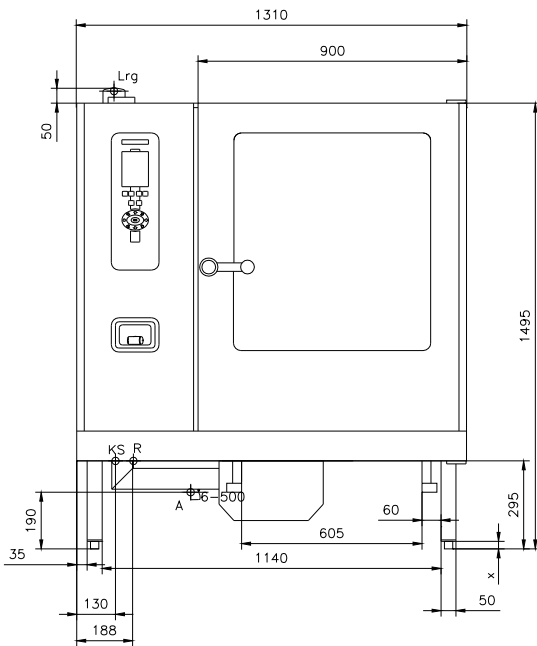
- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZE0 Energy optimising
- PE Potential equalisation
- X Adjustment + / -20
- R Connection cleaner
- KS Connection rinse
- EK Connection kitchen control system

Appliances with the door left hand side hinged are mirrored.

Technical details are subject to change!

Dimensioned sketch Combi Steamer Genius T 12-21

Housing dimensions and technical connections of models Multimax B und Genius T are identical

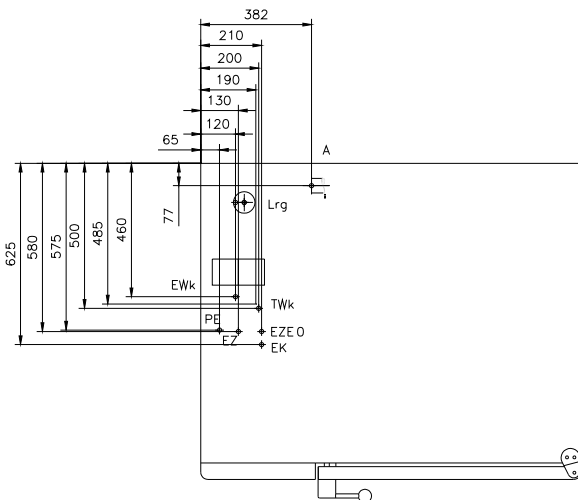
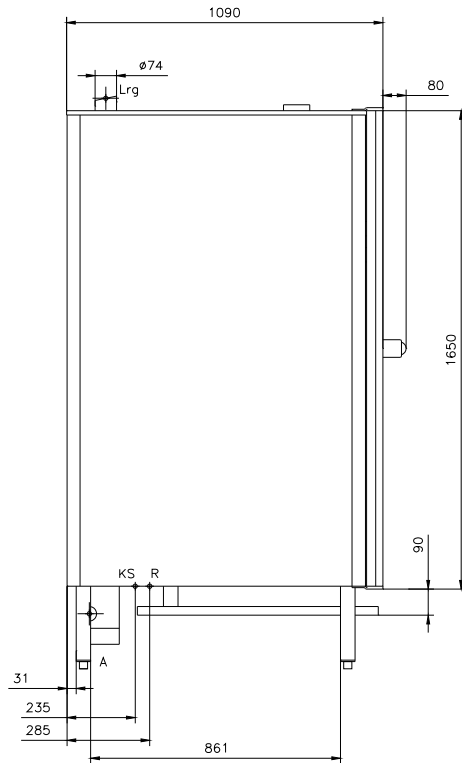
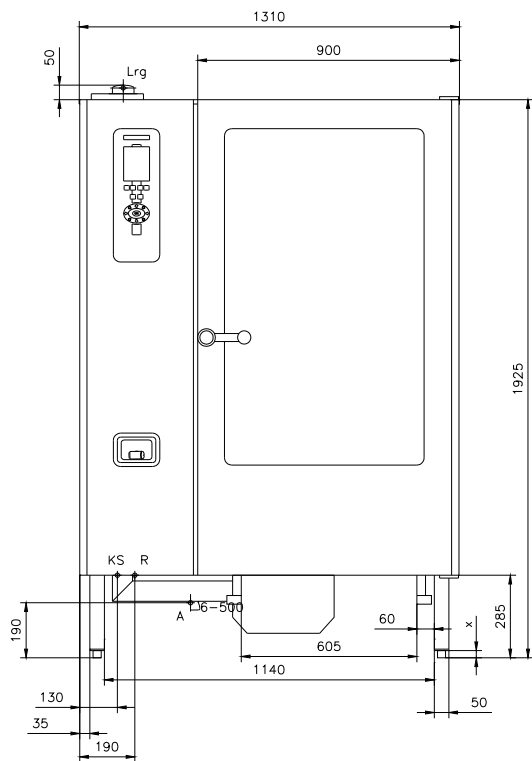


- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZE0 Energy optimising
- PE Potential equalisation
- X Adjustment +/- 20
- R Connection cleaner
- KS Connection rinse
- EK Connection kitchen control system

Technical details are subject to change!

Dimensioned sketch Combi Steamer Genius T 20-21

Housing dimensions and technical connections of models Multimax B und Genius T are identical

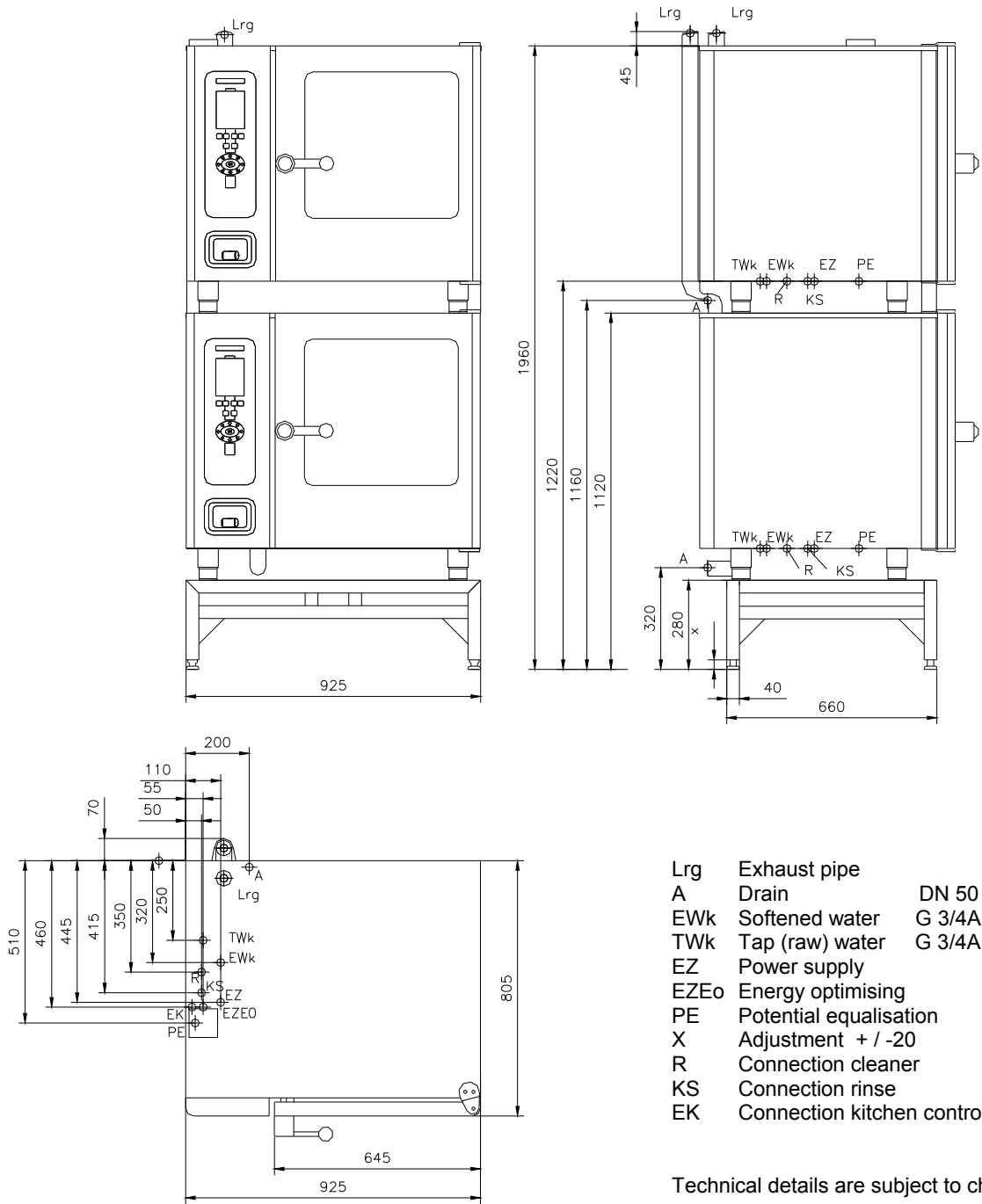


- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZEo Energy optimising
- PE Potential equalisation
- X Adjustment + / -20
- R Connection cleaner
- KS Connection rinse
- EK Connection kitchen control system

Technical details are subject to change!

Dimensioned sketch Combi Steamer Genius T 6 + 6

Housing dimensions and technical connections of models / Multimax B und Genius T are identical

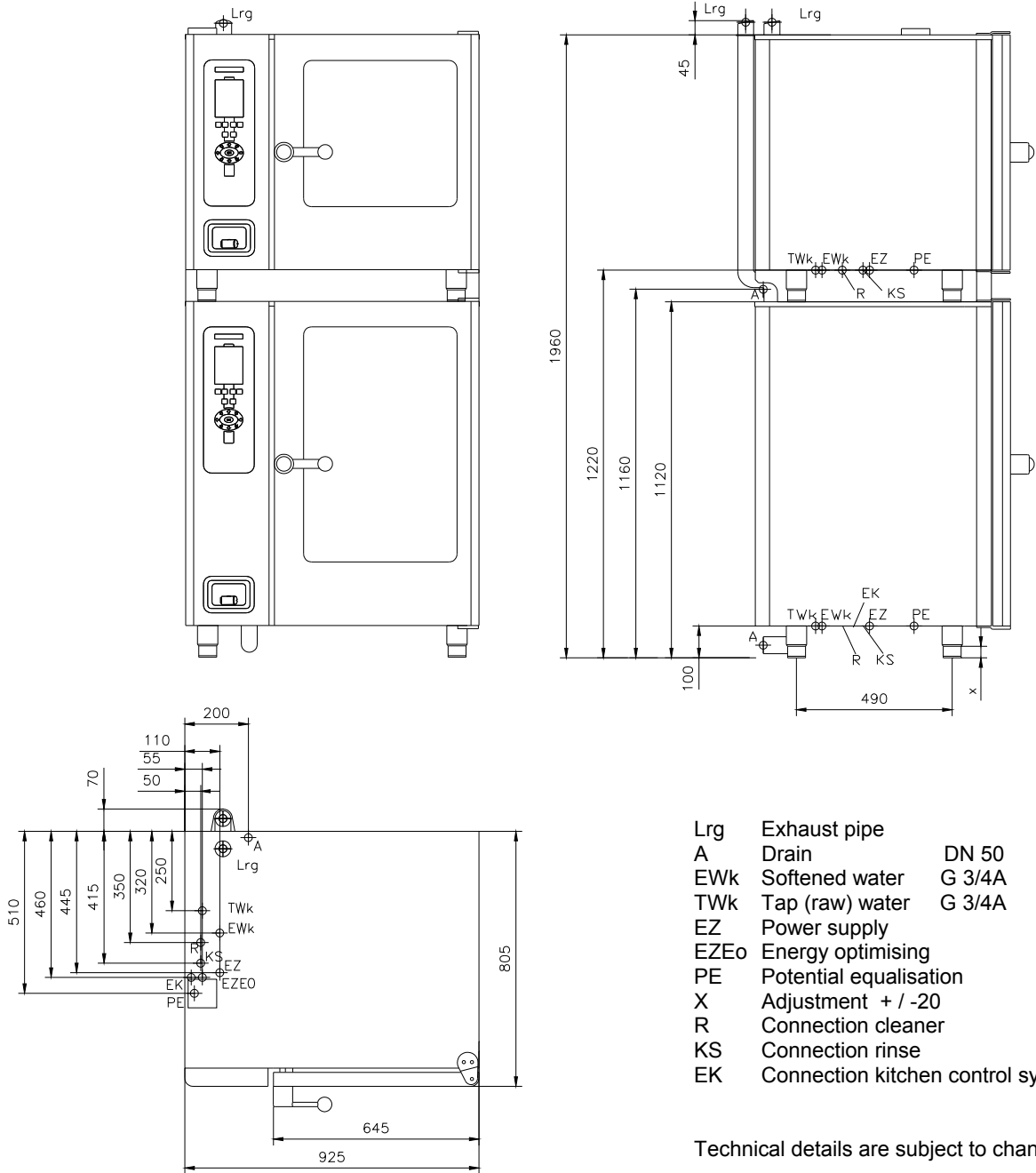


- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZEo Energy optimising
- PE Potential equalisation
- X Adjustment +/-20
- R Connection cleaner
- KS Connection rinse
- EK Connection kitchen control system

Technical details are subject to change!

Dimensioned sketch Combi Steamer Genius T 6 + 10

Housing dimensions and technical connections of models Multimax B und Genius T are identical



- Lrg Exhaust pipe
- A Drain DN 50
- EWk Softened water G 3/4A
- TWk Tap (raw) water G 3/4A
- EZ Power supply
- EZEo Energy optimising
- PE Potential equalisation
- X Adjustment +/- 20
- R Connection cleaner
- KS Connection rinse
- EK Connection kitchen control system

Technical details are subject to change!

USA

Art. Nr.: ins_EL0973017_mb_gt_e_1v6_enus