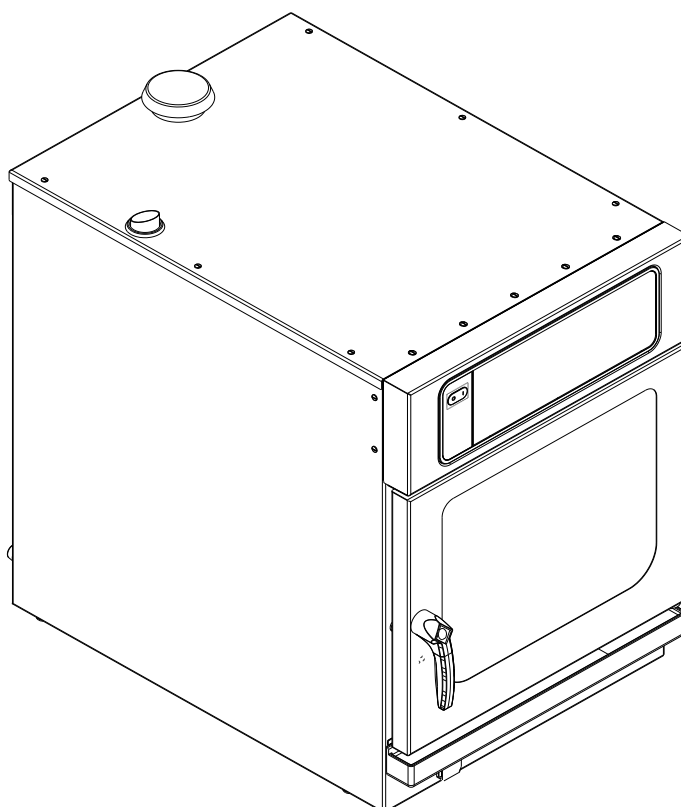




Read the operating instructions prior to
commissioning

Installation instructions

Combisteamer



Unit	Type of energy	Unit type	Model
SpaceCombi Compact Classic	Electric	Countertop unit	SKECOD 610
		Installation unit	
SpaceCombi Junior Classic		Countertop unit	SKECOD 623
		Installation unit	

10015159-0AIBE-C

en-GB

Manufacturer

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1 Introduction

1.1 About this manual

The instruction manual is part of the unit and contains information on safe installation of the unit.

Observe and adhere to the following instructions:

- Read the instruction manual in its entirety prior to installation.
- Make the instruction manual available to the installer at the operating site at all times.
- Preserve the installation manual throughout the service life of the unit.
- Insert any supplements from the manufacturer.
- Pass on the installation manual to any subsequent operator of the unit.

Target group The target group for the installation manual is trained technical personnel that is familiar with installing and operating the unit.

Figures All figures in this manual are intended as examples. Discrepancies between these and the actual unit can arise.

1.1.1 Explanation of signs



DANGER
Imminent threat of danger

Failure to comply will lead to death or very severe injuries.



WARNING
Possible threat of danger

Failure to comply can lead to death or very severe injuries.



CAUTION
Dangerous situation

Failure to comply can lead to slight or moderately severe injuries.

ATTENTION
Physical damage

Failure to comply can cause physical damage.



Notes for better understanding and operation of the unit.

Symbol / sign	Meaning
•	Listing of information.
→	Action steps, which can be performed in any sequence.
1. 2.	Action steps, which must be performed in the specified sequence.
↳	Result of an action performed or additional information about it.

1.2 Use of the unit

This unit is intended to be used solely for commercial purposes, particularly in commercial kitchens.

The use of the unit is prohibited in the following countries:

- USA
- Canada

1.3 Warranty

The warranty is void and safety is no longer assured in the event of:

- Improper conversion or technical modifications of the unit,
- Improper use,
- Incorrect startup, operation or maintenance of the unit,
- Problems resulting from failure to observe these instructions.

2 Safety information

The unit complies with applicable safety standards. Residual risks associated with operation or risks resulting from incorrect operation cannot be ruled out and are mentioned specifically in the safety instructions and warnings.

The installer must be familiar with regional regulations and observe them.

The installer must observe the safety instructions in these mounting instructions and in the "Safety information" chapter of the operating instructions.

Ensuring conformity with standards

Observe applicable international, European and national laws, regulations, standards and directives for the unit when transporting, setting up and connecting it.

Improper installation

Risk of property damage and personal injury from improper installation

- Install the unit only as specified in these installation instructions.
- Do not add anything to the unit or modify the unit.
- Use only original spare parts.

Transportation and storage

Risk of personal injury and property damage from improper transportation and improper storage

- Store the unit in a dry, frost-free environment.
- Observe the safety regulations for the lifting gear used.
- Attach the unit to the lifting gear securely during transport and setup, and prevent it from dropping.
- Transport the unit in an upright position, do not tilt or stack.
- Pay attention to protruding parts when transporting the unit without packaging.

Fire prevention

Risk of fire from combustible surfaces

- Observe general fire prevention regulations.

Organisational measures

Risk of property damage and personal injury from lack of organizational measures

- Identify hazard areas when transporting, setting up and connecting the unit.
- Prior to starting the installation work, notify any operators present about the procedure.
- Prior to starting the installation work, discuss how to behave in an emergency.
- Use equipment and protective gear suitable for the activity.
- Brace housing components to prevent them from falling over and dropping.

Setup Risk of property damage and personal injury from improper setup

- Wear safety shoes and protective gloves.

Electrical connection Risk of fire from improper connection

- Observe applicable regional regulations of the electrical utility.
- Ensure that only electricians licensed by the electric utility connect the unit.
- Ensure that the electrical system is earthed by a protective earthing conductor.
- Note the information on the nameplate.

Risk of electric shock from live components.

- Prior to working on the electrical system, switch off the unit, disconnect the electrical system from the mains and prevent power from being switched on again. Check to ensure absence of voltage.
- Use only insulated tools.

Risk of electric shock

- The unit must be incorporated into the potential equalisation circuit through use of the specified minimum wire sizes.

Unit on casters Risk of a line breaking if subjected to high tensile load

- Secure the unit with a chain as a strain relief for the power connection at the installation site so that no tensile load is applied to the power connection if the unit is moved.

Commissioning Risk of property damage and personal injury from improper commissioning

- Read the operating instructions prior to commissioning. Observe the safety instructions in this installation manual and in the "Safety information" chapter of the operating instructions.
- Put the unit into service only after a successful function test following assembly.
- Put the unit into service only after it has reached room temperature.
- Observe the units during operation.

3 Description of the unit

3.1 Overview of the unit

3.1.1 Countertop unit

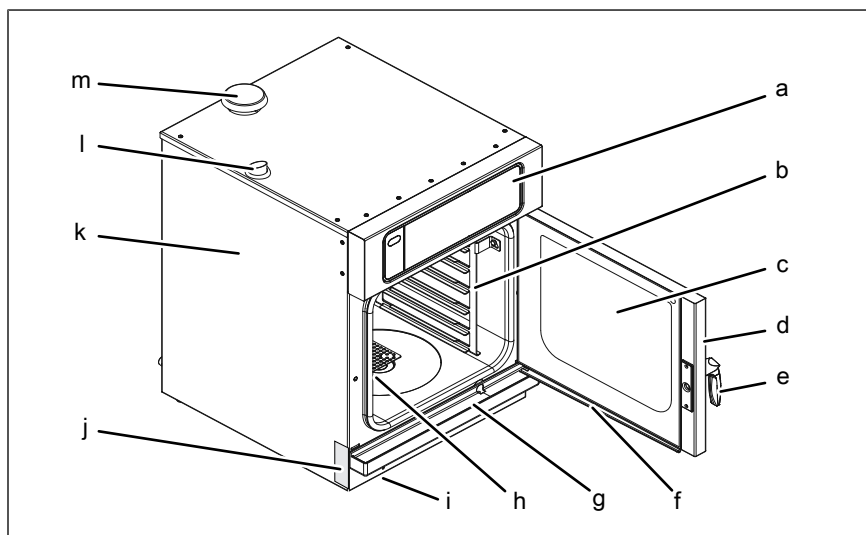


Image: Countertop unit

- | | |
|---------------------------|-------------------------------------|
| a Control unit | h Core temperature sensor (covered) |
| b Support rack | i USB port (covered) |
| c Insulated window | j Nameplate |
| d Cooking zone door | k Housing |
| e Door handle | l Steam outlet |
| f Discharge channel, door | m Air inlet |
| g Discharge channel, unit | |

3.1.2 Installation unit

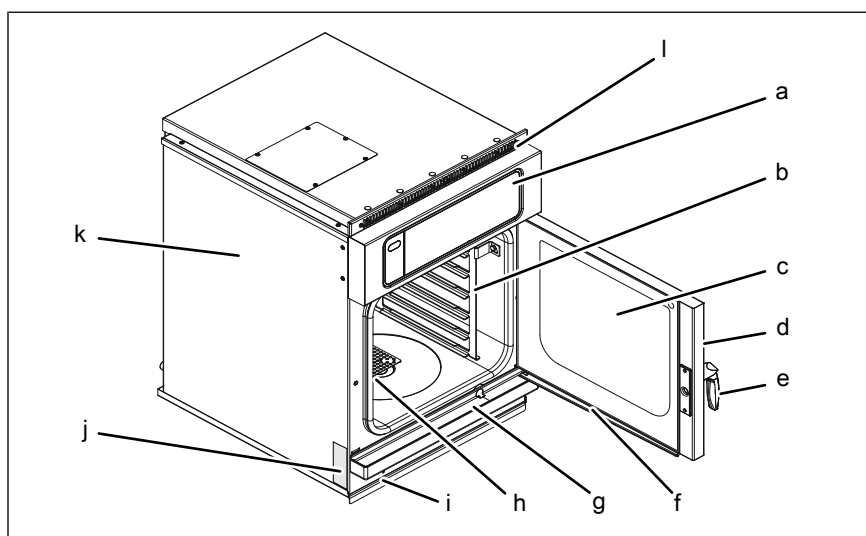


Image: Installation unit

- a

Control unit
- b

Support rack
- c

Insulated window
- d

Cooking zone door
- e

Door handle
- f

Discharge channel, door
- g

Discharge channel, unit
- h

Core temperature sensor (covered)
- i

USB port (covered)
- j

Nameplate
- k

Housing
- l

Ventilation grille

3.2 Planning drawing

3.2.1 Countertop unit

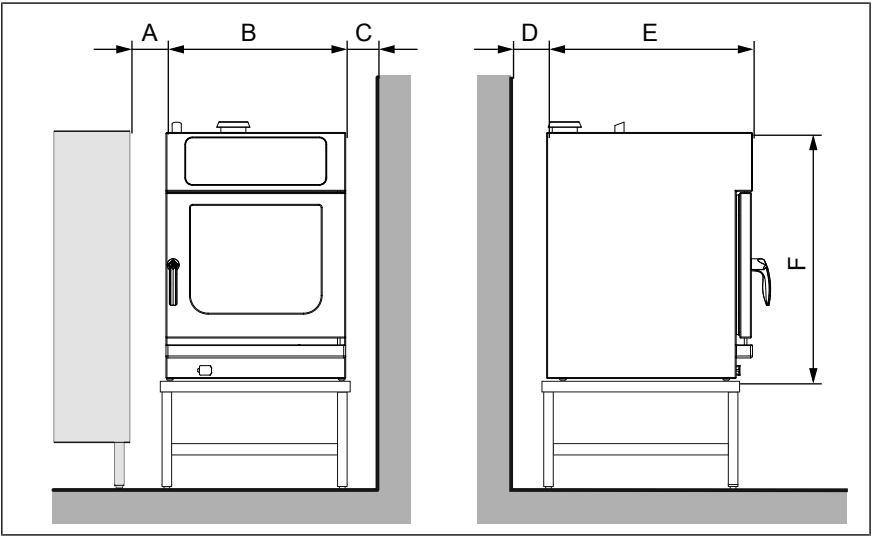


Image: Countertop unit

Model: SKECOD						
Size	A	B	C	D	E	F
610	>50	550	50	50	783	791
623	>50	550	50	50	630	791
All dimensions in mm						



3.2.2 Installation unit

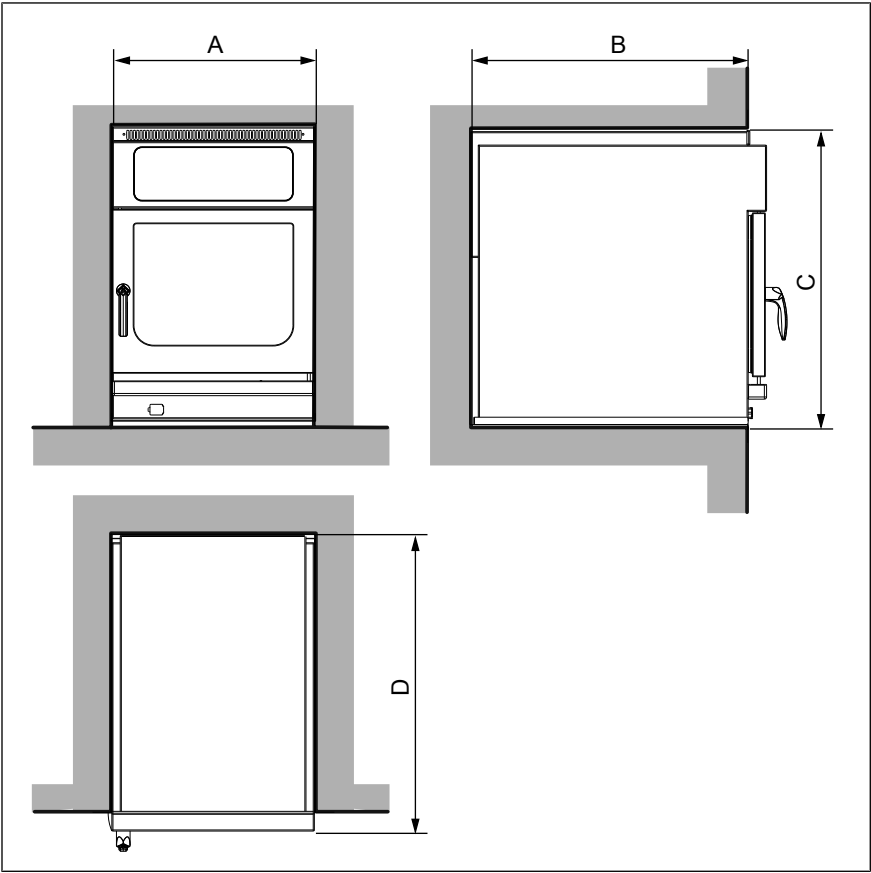


Image: Built-in unit

Installed dimensions

Model: SKECOD				
Size	A	B	C	D
610	555	755	805	806
623	555	602	805	653
All dimensions in mm				

3.3 Equipment and connection data

	Model SKECOD	
Size	610	623
Dimensions		
Unit Length x Width x Height (mm)	780 x 550 x 790	630 x 550 x 790
Weight		
Unit (kg)	86	66
Emissions		
Heat dissipation at a connected load of 400 V		
Latent heat (W)	1404	936
Sensible heat (W)	936	924
Noise level (dB(A))	< 65	
Operating environment		
Temperature (°C)	5 — 40	
Relative humidity (%) non-condensing	95	
Power connection		
Protection class	IPX5	
Type of connection	3PE AC 50/60 Hz, 3NPE AC 50/60 Hz	
Voltage (V)	200	
Connected load (kW)	7	4.9
Fuse (A)	25	16
Voltage (V)	208	
Connected load (kW)	7.4	5.1
Fuse (A)	25	16
Voltage (V)	220	
Connected load (kW)	8.4	5.8
Fuse (A)	25	20
Voltage (V)	230	
Connected load (kW)	9.1	6.4
Fuse (A)	25	20
Voltage (V)	240	
Connected load (kW)	9.8	6.8
Fuse (A)	25	20
Voltage (V)	380	
Connected load (kW)	7.4	4.9
Fuse (A)	16	16
Connected load (kW)	10.1	---

Description of the unit

	Model SKECOD	
Size	610	623
Fuse (A)	16	---
Voltage (V)	400	
Connected load (kW)	7.8	5.2
Fuse (A)	16	16
Connected load (kW)	11.2	---
Fuse (A)	20	---
Voltage (V)	415	
Connected load (kW)	8.1	5.4
Fuse (A)	16	16
Connected load (kW)	12	---
Fuse (A)	20	---
Voltage (V)	440	
Connected load (kW)	7.9	5.2
Fuse (A)	16	16
Type of connection	2PE AC 50/60 Hz	
Voltage (V)	208	
Connected load (kW)	5.3	5.3
Fuse (A)	35	35
Voltage (V)	240	
Connected load (kW)	6.9	6.9
Fuse (A)	35	35
Type of connection	1NPE AC 50/60 Hz	
Voltage (V)	220	
Connected load (kW)	5.8	3.2
Fuse (A)	35	16
Voltage (V)	230	
Connected load (kW)	6.4	3.5
Fuse (A)	35	16
Voltage (V)	240	
Connected load (kW)	6.9	3.8
Fuse (A)	35	16
Soft water connection		
Type of water	Soft water, cold	
Carbonate hardness CaCO ₃ (mmol/l (°dH))	< 0,9 (5)	
Chloride Cl (mg/l)	< 50	
Iron Fe (mg/l)	< 0.1	

	Model SKECOD	
Size	610	623
Connection pressure (kPa (bar))	200 (2) — 600 (6)	
Connection (")	R 3/4, male thread	
Tap water connection		
Type of water	Tap water, cold	
Carbonate hardness CaCO ₃ (mmol/l (°dH))	< 4 (22)	
Connection pressure (kPa (bar))	200 (2) — 600 (6)	
Connection (")	R 3/4, male thread	
Water consumption for steaming		
Soft water (l/h)	10	7,5
Water consumption for Combisteaming		
Soft water (l/h)	2,2	1,7
Water consumption for WaveClean cleaning program		
Soft water (l)	1,3	
Tap water (l)	17,7	
Wastewater connection		
Wastewater type	Dirty water	
Maximum length (m)	1	
Temperature resistance (°C)	95	
Connection (mm)	40	
Maximum flow rate (l/min)	10	

Basic control setting

Basic setting	Parameter s	Standard value	Adjustment range	Explanation
Unit of temperature	1	0	0 = °C	Celsius (°C)
			1 = °F	Fahrenheit (°F)
Altitude	2	0	0 — 999 m	Request the altitude above sea level from the closest weather station. If the altitude is unknown, set 0 — 999 m.
			1000 m — 1999 m	
			2000 m — 2499 m	
			2500 m or higher	
80 % power	3	0	1 = Yes	Power can be limited to 80 % (for special applications).
			0 = No	
Actual voltage	14	400	100 — 500 V	Set the local, mean voltage between the line conductors.
Volume of audible signal	33	0	0 = Quiet	Sets the volume.
			1 = Loud	

Description of the unit

Basic setting	Parameter s	Standard value	Adjustment range	Explanation
Unit of volume	34	0	0 = (ml)	Millilitre (ml)
			1 = (fl.oz.)	Fluid ounce (fl.oz.)
	35	0	0 = Imperial (fl.oz.)	Imperial fluid ounce
			1 = U.S. (fl.oz.)	U.S. fluid ounce
Power optimisation system	42	0	0 = Off	If a power optimisation system is connected, "1" must be selected for the unit to heat.
			1 = On	

Basic control setting (Advanced)

Basic setting	Parameter s	Standard value	Adjustment range	Explanation
Ready2Cook preheating temperature	4	15	0 — 30 %	If the unit is fully loaded with a large mass (roasts, loaves of bread), increase the preheating temperature so that the cooking zone temperature does not drop too suddenly.
Preselect steaming temperature	9	100	30 °C — 130 °C	Preset the temperature for steaming
Preselect Combisteaming temperature	10	150	30 °C — 250 °C	Preset the temperature for Combisteaming
Preselect hot air temperature	11	180	30 °C — 250 °C	Preset the temperature for hot air
Preselect regeneration temperature	12	130	30 °C — 150 °C	Preset the temperature for regeneration
Maximum waiting time after Ready2Cook, for T < 250 °C	37	120	0 — 300 min	Maximum waiting time after the Ready2Cook temperature is reached, for set value < 250 °C
Maximum waiting time after Ready2Cook, for T > 250 °C	38	30	0 — 60 min	Maximum waiting time after the Ready2Cook temperature is reached, for set value > 250 °C
Generator operation	45	0	0 = No 1 = Yes	If a generator is used to supply electricity
Cleaning monitoring	46	0	0 = No 1 = Yes	When cleaning monitoring is activated, a message appears if the cleaning program has not been started for more than 1 day.
Steam elimination	48	1	0 = Low 1 = Normal 2 = High	Sets the steam elimination level

Transformer voltage

Type of connection	1NPE / AC 50/60 Hz, 2PE / AC 50/60 Hz	
Voltage range (V)	200 — 240	
Transformer	T1	
Marking or colour of the cores	Blue	Red
Voltage measured (V)	Voltage at the transformer (V)	
190 — 200	0	200
201 — 220	0	220
221 — 230	0	230
231 — 240	0	240
241 — 250	0	250

Type of connection	3NPE / AC 50/60 Hz, 3PE / AC 50/60 Hz	
Voltage range (V)	200 — 240	
Transformer	T1	
Marking or colour of the cores	Blue	Red
Voltage measured (V)	Voltage at the transformer (V)	
190 — 200	0	200
201 — 220	0	220
221 — 230	0	230
231 — 240	0	240
241 — 250	0	250

Type of connection	3NPE / AC 50/60 Hz, 3PE / AC 50/60 Hz	
Voltage range (V)	380 — 440	
Transformer	T1	
Marking or colour of the cores	Blue	Red
Voltage measured (V)	Voltage at the transformer (V)	
370 — 380	0	220
381 — 400	0	230
401 — 420	0	240
421 — 460	0	250

4 Transporting the unit



CAUTION

Risk of property damage and personnel injury from tipping equipment

- Do not linger next to or behind raised equipment.
- Move raised equipment carefully.

ATTENTION

Risk of physical damage from improper transport

- Transport the unit upright.
- Do not tilt or stack the unit.
- Pay attention to protruding parts when transporting the unpacked unit.

Prior to transporting the unit to the installation site, ensure that:

- The roadway has adequate load-bearing capacity.
- Wall openings are large enough.

4.1 Transporting the unit to the installation site

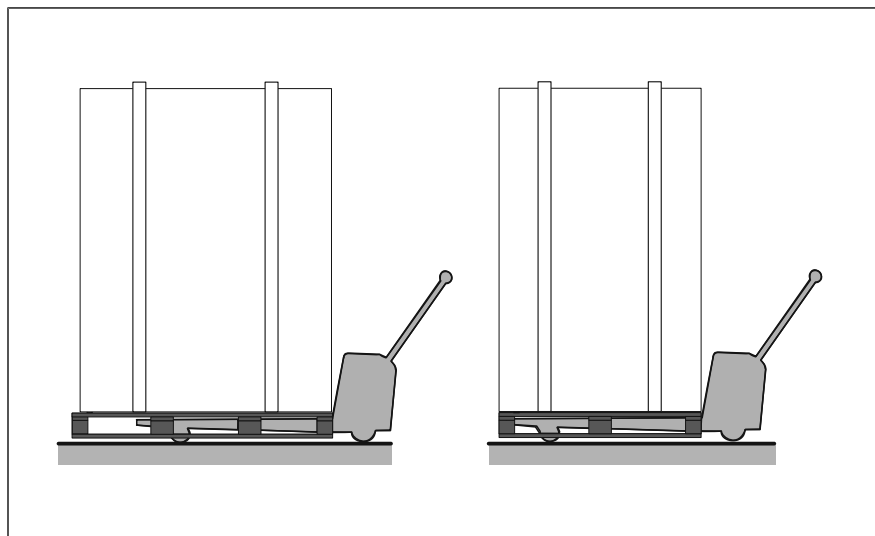


Image: Lengthwise and crosswise transport on pallet

→ Use suitable transport means to move unit to installation site.

4.2 Unpacking the unit

**CAUTION****Risk of injury from sharp edges**

- Wear protective gloves.



When unpacking the unit, inspect it for transport damage.

Do not install damaged units or put into service.

1. Remove the packaging.
2. Pull the protective film off the unit.
3. Remove the packaging material from the cooking zone completely.
4. Clean the unit (see "Cleaning and maintaining the unit" in the operating instructions).
5. Enter the information from the nameplate into the commissioning report.

5 Setting up the unit



CAUTION

Risk of crushing from improper setup

- Protect the unit and work area during setup and alignment.



CAUTION

Risk of fire from failure to observe applicable regional fire prevention regulations

- Observe applicable regional fire prevention regulations.

ATTENTION

Risk of physical damage from overheating of the unit

- Do not set up the unit close to heat sources.

5.1 Minimum clearances

The following clearances from walls, ceilings or other equipment must be maintained when setting up the unit:

- Left, right and rear: at least 50 mm.
- To ceilings: at least 500 mm.
- There must be no water, gas or electric lines in the ceiling above the unit.

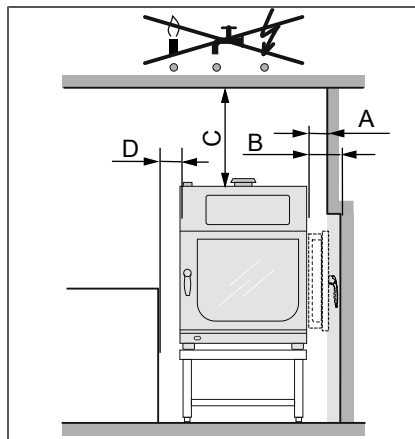


Image: Minimum clearances to walls, ceiling or units

5.2 Setting up the unit on a work surface or base frame



CAUTION

Danger due to heavy weight of the unit (over 60 kg)

- Erect the unit with several people.
- Raise / lower the unit with suitable lifting equipment.

- Requirement** Work surface / base frame must support the weight of the unit
 Work surface / base frame must be levelled
 Base frame must be set up in accordance with the planning drawing
1. Lift the unit.
 2. Place the unit on the work surface or on the stud bolts of the base frame.



CAUTION

Risk of scalding due to spillage of hot cooked food

- Attach sticker if the upper slide-in rails are higher than 1,6 m.

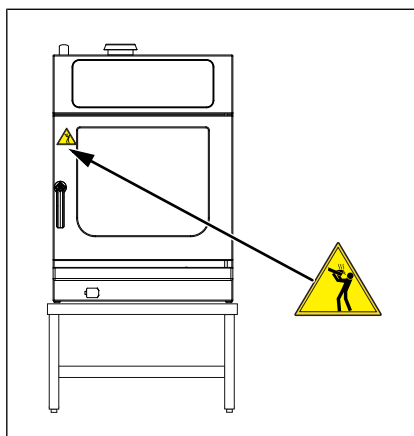


Image: Attach a warning sign about the shelf height

3. Clean the adhesive surface for the sticker.
4. Attach the sticker at a height of 1,6 m to the cooking zone door.

5.2.1 Installing the support rack

Depending on the version, the base frame can be equipped with a support rack.

The support rack is used to hold containers, metal trays and grates.

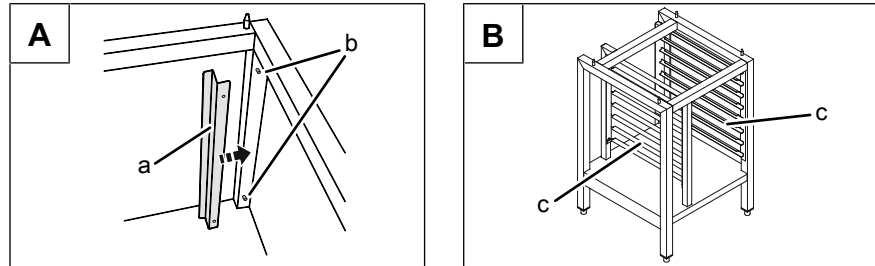


Image: A Stop profile, B Support rack

a Stop profile
b Pin

c Support rack

Requirement Pins installed in the uprights of the base frame

1. Place the stop profiles on the pins (at the back).
2. Install the support racks.

6 Connecting the unit



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.



CAUTION

Risk of injury from sharp edges

- Wear protective gloves.

ATTENTION

Risk of physical damage from damage to the lines

- Remove and attach housing components carefully.

6.1 Opening and closing the housing

6.1.1 Removing and attaching the rear panel

Removing the rear panel

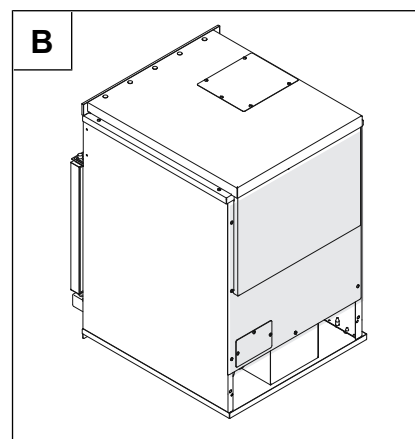
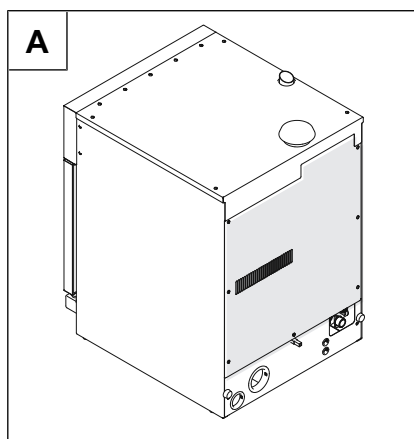


Image: Remove the rear panel, A Countertop unit, B Installation unit

1. Unscrew the screws on the rear panel.
2. Remove the rear panel.

Attaching the rear panel

ATTENTION

Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- Replace damaged gaskets.

1. Carefully press in the rear panel.
 2. Screw in the screws on the rear panel.
- ↳ The rear panel must be in contact with the unit on all sides.

6.1.2 Removing and attaching the unit cover

Removing the unit cover on a countertop unit

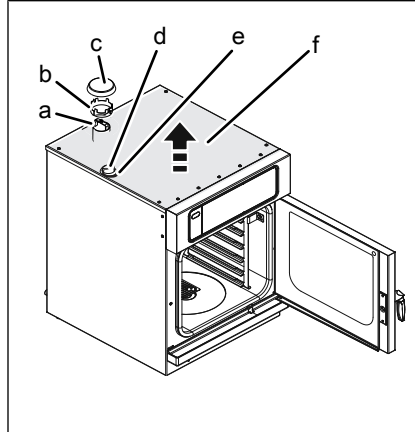


Image: Removing the unit cover

- | | |
|-------------------|----------------|
| a Air inlet | d Steam outlet |
| b Ventilator ring | e Seal |
| c Lid | f Unit cover |

1. Unscrew the lid from the air inlet.
2. Remove the ventilator ring.
3. Unscrew the screws on the unit cover.
4. Carefully remove the unit cover.

Attaching the unit cover on a countertop unit

ATTENTION

Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
 - Replace damaged gaskets.
-

1. Brush the seal on the steam outlet with an acid-free slip agent.
2. Carefully push the unit cover over the steam outlet and air inlet.
↳ The air inlet must be pushed through the cut-outs on the unit cover.
3. Press the unit cover onto the housing.
4. Screw in the screws on the unit cover.
↳ The unit cover must be in contact with the unit on all sides.
5. Put the ventilator ring on with the cut-outs facing upwards and ensure that it can not be rotated.
6. Screw the lid onto the air inlet.

Removing the unit cover on an installation unit

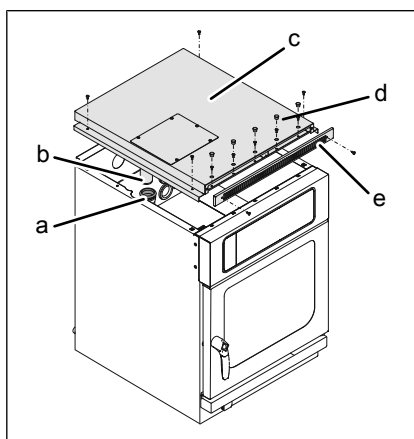


Image: Removing the unit cover

- | | |
|----------------|----------------------|
| a Seal | d Cap |
| b Steam outlet | e Ventilation grille |
| c Unit cover | |

1. Unscrew the ventilation grille.
2. Press in the side locks on the caps.
3. Remove the caps.
4. Unscrew the screws on the unit cover.
5. Carefully remove the unit cover.

Attaching the unit cover on an installation unit

ATTENTION

Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- Replace damaged gaskets.

1. Check that the seal on the steam outlet is seated correctly.
2. Brush the seal on the steam outlet with an acid-free slip agent.
3. Carefully place the unit cover on flush with the steam outlet.
4. Screw in the screws on the unit cover.
 - ↳ The unit cover must be in contact with the unit on all sides.
5. Insert the caps.
6. Fasten the ventilation grille with the screws.

6.1.3 Removing and attaching the cover panel for the connection terminals on an installation unit

Removing the cover panel for the connection terminals

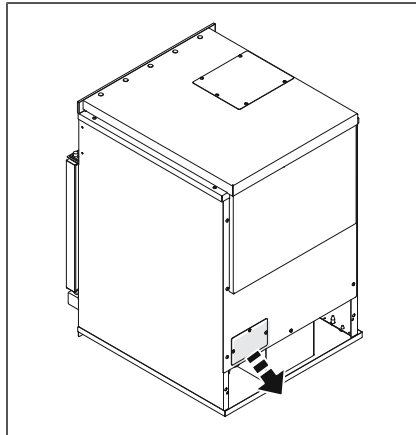


Image: Cover panel for connection terminals

1. Loosen screws in cover panel over the connection terminals.
2. Remove the cover panel over the connection terminals.

Attaching the cover panel for the connection terminals

→ Press the panel into place and fasten it.

6.1.4 Attaching the hygiene plate



The hygiene plate is enclosed with the unit.

Before the power connection is made, guide the lines through the openings in the hygiene plate.

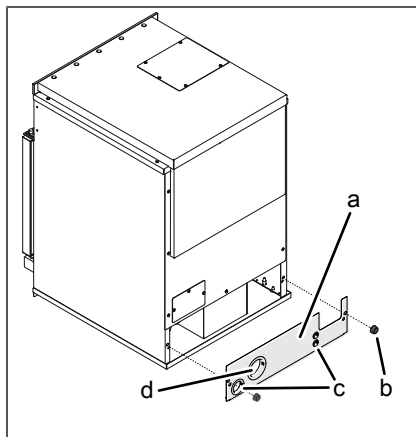


Image: Attaching the hygiene plate

- | | |
|-----------------|-----------------------------|
| a Hygiene plate | c Cable gland |
| b Rubber buffer | d Gland for wastewater pipe |

1. Remove the rubber buffer from the housing.
2. Press the hygiene plate onto the housing.
3. Fasten the hygiene plate with the rubber buffer to the housing.

6.2 Making the electrical connection

ATTENTION

Risk of physical damage from incorrect connection voltage

- Before making the connection, measure the connection voltage and check the set voltage on the transformers in the unit.

The unit must be connected on the basis of the information on the nameplate and this manual.

Wiring diagram

The wiring diagram is included with the unit.

The wiring diagram and additional documents are available on the manufacturer's Internet page by entering the serial number of the unit (see Impressum).

Installation work

Electrical installation work must be carried out by an electrician. Comply with the local regulations of the electrical utility company.

Power connection cable

Minimum requirements for the unit's power connection cable to the electric mains:

Connection	Power connection cable
Permanent connection for fixed installation with a cable from the unit to a separate connection box.	Rubber sheath cable, oil-resistant, shrouded and flexible in accordance with IEC 60245-57 (for example H05RN-F).
Connection of the unit with a plug.	
Permanent connection for fixed installation with a permanently laid cable and direct connection to the unit.	PVC sheathed cable for permanent ducting in buildings or damp and wet rooms.

Permanent connection



CAUTION

Risk of property damage and personal injury from improper installation

- In the case of a permanent electrical connection, install an all-phase disconnect switch before the unit.

Install an all-phase disconnect switch if the unit will be connected permanently to the electric mains.

Plug-in connection



CAUTION

Risk of property damage and personal injury from improper installation

- The plug-in connection must be readily accessible.
-

If the unit is connected with a plug to the power-supply mains, use plugs and sockets according to IEC60309.

The socket must be readily accessible so that the unit can be disconnected from the electric mains at any time.

Insulation monitoring

If there is an unearthed network (IT network), the unit can be incorporated into the insulation monitoring.

Fault current device

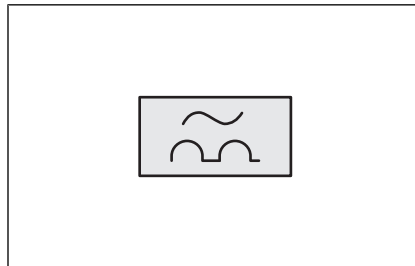


Image: RCD switch type A, circuit symbol

The unit can be connected to a fault current device.

If a fault current device is used, a fault current device type A (RCD type A) must be installed, to ensure that AC fault currents and pulsating DC currents are detected.

Equipotential bonding

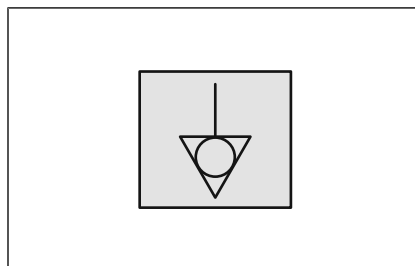


Image: Equipotential bonding symbol

The unit must be included in a potential equalisation system by means of appropriately sized wiring.

6.2.1 Matching the unit to the connection voltage

When the unit is delivered, it is preset to a certain connection voltage or voltage range.

If the connection voltage on site differs from the preset connection voltage, damage to the unit can arise.

Before connecting the unit, the connection voltage must be measured and the transformers in the unit checked, and if necessary they must be reconnected.



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.

ATTENTION

Risk of physical damage from incorrect connection voltage

- Before making the connection, measure the connection voltage and check the set voltage on the transformers in the unit.

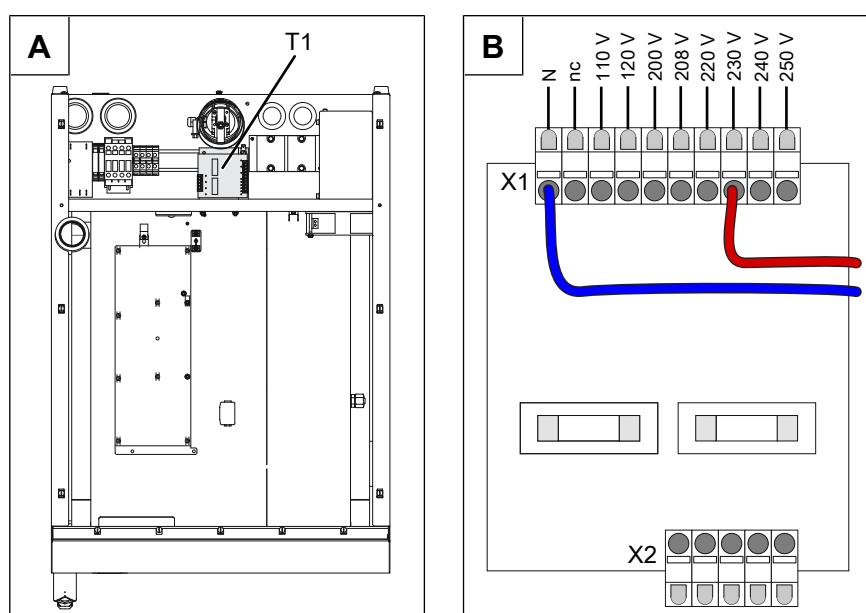


Image: A Transformer position T1; B Connection for transformer controls

Requirement Unit not live

1. Measure the connection voltage with a suitable measuring device.
 - ↳ The voltage range must match that on the nameplate.
 - ↳ If there are voltage fluctuations, the maximum expected voltage must be taken into account.

- 2. Check whether the transformer voltage is within the specified range (see "Equipment and connection data").
- 3. If the set voltage is different, remove the unit cover (see "Equipment and connection data").
- 4. Alter the transformer voltage by switching the connections.
- 5. The new voltage that is set must be documented on the sticker.
- 6. Attach the unit cover.
- 7. Fill out the Commissioning report.

6.2.2 Description of the power connection

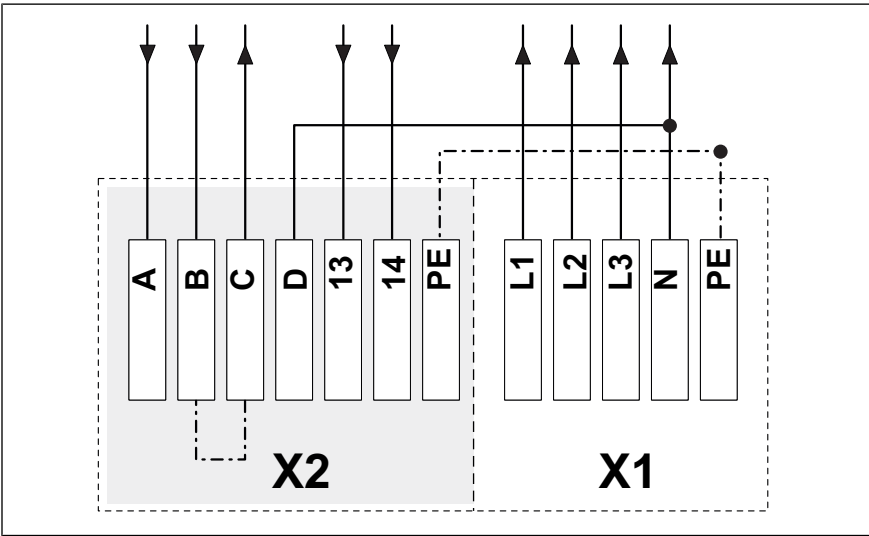


Image: Terminal strip diagram for power connection in the unit

A, B, C, D	Power optimisation system	PE	Protective earth conductor
13, 14	Potential-free contact	X1	Connection to electric mains
L1, L2, L3	Line conductors (phases)	X2	Power optimisation system connection (POS)
N	Neutral conductor		

6.2.3 Connecting the power connection cable



DANGER
Risk of personal injury and physical damage from electric shock

- Before working on the unit, ensure that the unit has been disconnected from the power supply.



DANGER
Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.

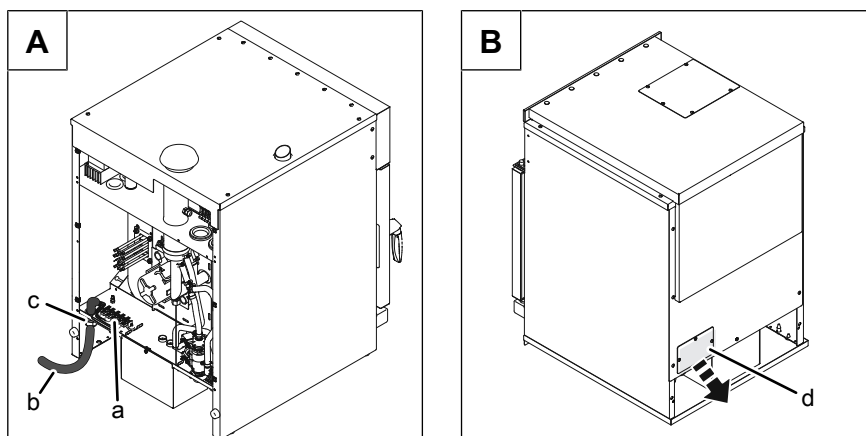


Image: Power connection cable, A Countertop unit, B Installation unit

- | | |
|---------------------------|--|
| a Connection terminals X1 | c Threaded cable gland |
| b Power connection cable | d Cover panel for connection terminals |

Requirement Unit not live

Power connection cable not live

Unit matched to the connection voltage

Housing opened

1. Feed the power connection cable into the unit.
2. Connect the power connection cable in accordance with the wiring diagram.
3. Secure the power connection cable with cable ties.
4. Close the housing (see "Opening and closing the housing").
5. Fill out the Commissioning report.

6.2.4 Connecting the power optimizing system

The unit can be connected to a power optimising system. The required cable length in the unit for the power optimisation system corresponds to the height of the unit.



DANGER

Risk of personal injury and physical damage from electric shock

- Before working on the unit, ensure that the unit has been disconnected from the power supply.



DANGER

Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.

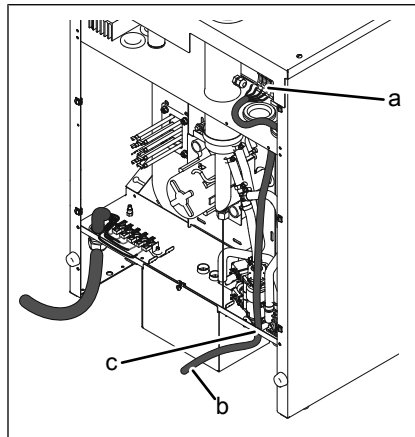


Image: Connecting the power optimisation system

- | | | | |
|---|---|---|-------------|
| a | Connection terminals X2 for power optimisation system | c | Cable gland |
| b | Power connection cable for power optimisation system | | |

Requirement Unit not live

Power connection cable not live

Housing opened

1. Pull the power connection cable into the unit through the cable gland.
2. Bring the power connection cable to the connection terminals.
3. Connect the power connection cable in accordance with the wiring diagram.
4. Secure the power connection cable with cable ties.
5. Register the power optimisation system in the basic control settings (see "Making the basic control settings").
6. Fill out the Commissioning report.

6.2.5 Connecting to the potential equalisation circuit

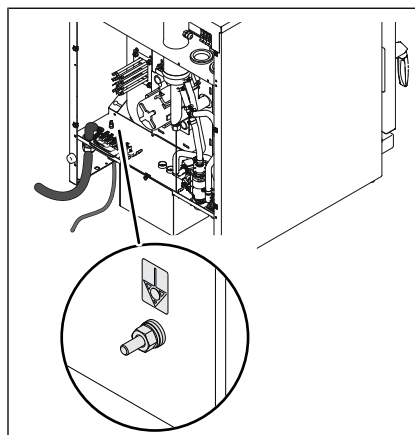


Image: Connecting to the potential equalisation circuit

1. Run and attach potential equalisation line to the identified terminal.
2. Fill out the commissioning report.

6.2.6 Converting to single-phase power connection

The Combisteamer is provided at the factory with a three-phase power connection.

If no three-phase power connection is available, the **623** model can be converted to operation with a single-phase power connection.



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.

Changing relay terminal connections

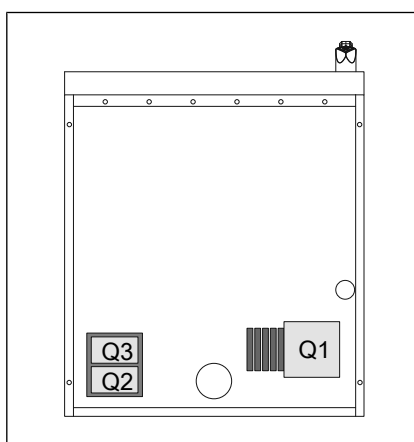


Image: Relay arrangement, model 6.23 (view from above)

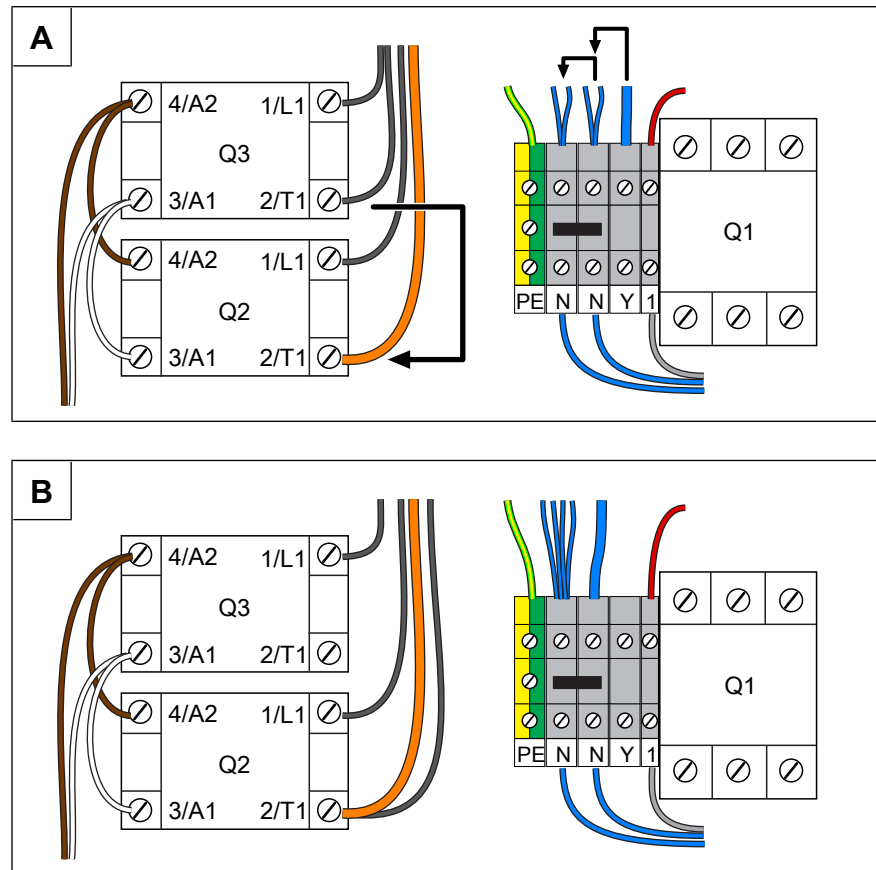


Image: A Model 6.23 before conversion, B Model 6.23 after conversion

Requirement Unit not live

Unit cover removed

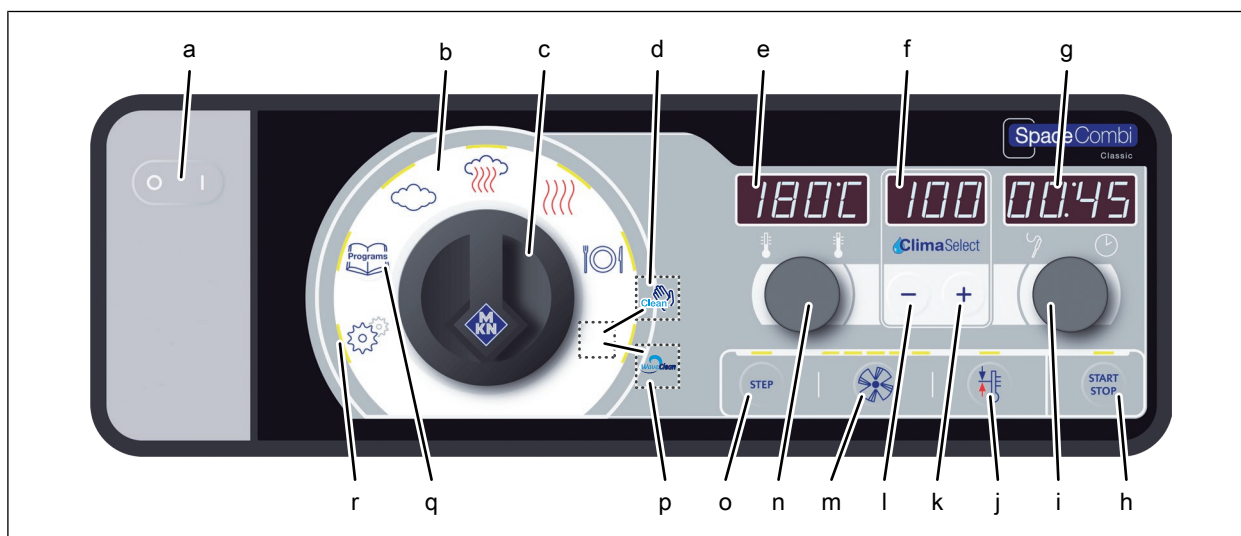
1. Remove the blue pair of cores from terminal N beside Q1, and then clamp them on terminal N together with the existing blue pair of cores.
2. Change the blue core from terminal Y beside Q1 to terminal N.
3. Remove the black core from relay Q3, terminal 2/T1, and then clamp it on relay Q2, terminal 2/T1, together with the existing orange core.
4. Attach the unit cover.
5. Fill out the Commissioning report.

Connecting the single-phase power connection cable

In the case of single-phase connection, the line conductor L3 is used with the connection terminals X1.

→ Connect the power connection cable (see "Connecting power connection cable").

6.3 Making the basic control setting



- | | |
|-----------------------|---------------------|
| a On Off "I O" button | j Ready2Cook button |
| b Selection range | k Plus button |
| c Select knob | l Minus button |
| d HandClean symbol | m Fan speed button |
| e Left display | n Left knob |
| f Middle display | o "STEP" button |
| g Right display | p WaveClean symbol |
| h "START STOP" button | q "Programs" button |
| i Right knob | r Indicator light |

6.3.1 Opening the Setting menu

By entering the password "2100", the basic settings for the installation can be displayed and changed.

Requirement The unit is on

1. Turn the *Select* knob to the *Settings* symbol.
 - ↳ The indicator light illuminates.
 - ↳ The left display shows "PASS".
 - ↳ The right display flashes "0000".
2. Use the right not to set the password.
 - ↳ The right display shows the set password.
3. Press the "START STOP" button.
 - ↳ The left display flashes "HAC".
4. Use the left knob to select OPT.
 - ↳ The left display flashes "OPT".
 - ↳ The basic settings can be changed.

6.3.2 Changing the basic control setting

1. Press the "START STOP" button.
 - ↳ Left display flashes the basic setting parameter (see "Equipment and connection data").
 - ↳ "OPt" appears on the centre display.
 - ↳ The right display shows the first set value.
2. Turn the left knob.
 - ↳ Set number.
3. Press the "START STOP" button.
 - ↳ The basic setting can be adjusted.
4. Turn the right knob.
 - ↳ Set new value.
5. Press the "START STOP" button.
 - ↳ Accept changes.
6. Press and hold the "STEP" button for 3 seconds.
 - ↳ Changes are saved.
 - ↳ "OPt" flashes on the left display.
 - ↳ The centre display shows "Stor".
7. Press the "STEP" button to leave the Settings menu.
8. Fill out the commissioning report.

6.4 Making the water connection

Installation work involving drinking water must be performed by an authorised plumbing contractor.

Observe applicable regional regulations with regard to drinking water installations and connection data (see "Equipment and connection data").

The unit has a connection for permanent attachment the drinking water system.

The unit is equipped with a permanent connection for:

- Softened drinking water for steam generation
- Drinking water for cooling, rinsing and cleaning



CAUTION

Hygiene risk from contaminated drinking water

- The connection to the drinking water supply must be equipped with a backflow preventer.
-

ATTENTION

Risk of physical damage from the wrong water quality

- Ensure that the water quality complies with the equipment and connection data.
-



Always connect both water connections to the unit.

6.4.1 Connecting the tap water connection line

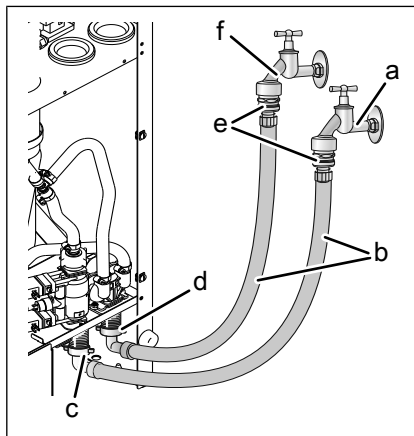


Image: Water connection

- | | |
|---------------------------------|------------------------|
| a Softened tap water | d Tap water connection |
| b Connection line | e Backflow preventer |
| c Softened tap water connection | f Tap water |

Requirement Water pressure complies with the specified range (see "Equipment and connection data")

Backflow preventer installed

The connection lines are pressure-tight and suitable for tap water

1. Connect the connection lines to the tap water valves using seals.
2. Flush the connection lines thoroughly.
3. Insert dirt filters into the water connections on the unit.
4. Connect the tap water connection line to the unit.
5. Connect the soft water connection line to the unit.
6. Open the tap water valves and check the threaded connectors for leaks.
7. Fill out the Commissioning report.

6.4.2 Connecting softened tap water to both connections

If only softened tap water is available at the installation site, use a T-piece to connect both water connections on the unit to each other.

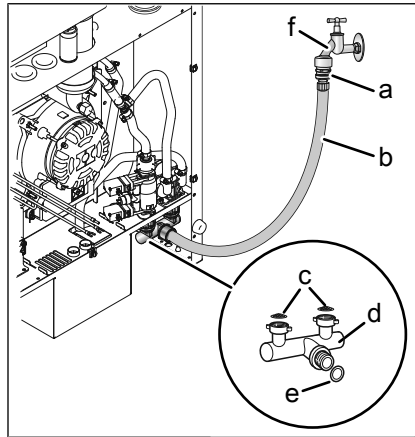


Image: Connecting softened tap water to both connections

- | | |
|----------------------|----------------------|
| a Backflow preventer | d T-piece |
| b Connection line | e Seal |
| c Dirt filter | f Softened tap water |

Requirement Water pressure complies with the specified range (see "Equipment and connection data")

Backflow preventer installed

The connection line is pressure-tight and suitable for tap water

1. Connect the connection line to the tap water valve for soft water using a seal.
2. Flush the connection line thoroughly.
3. Insert dirt filters into the water connections on the unit.
4. Connect the T-piece to the unit.
5. Connect the connection line for soft water to the T-piece using a seal.
6. Open the tap water valve and check the threaded connectors for leaks.
7. Fill out the Commissioning report.

6.5 Making the wastewater connection

Installation work involving wastewater must be performed by an authorised plumbing contractor.

Observe the applicable regional regulations of the sewage utility involved.

6.5.1 Determining the type of connection to the sewer system

The units can be equipped with either an automatic or manual cleaning system. The symbol on the control unit indicates which cleaning system is installed.

Cleaning system	Type of connection to the sewer system
 Automatic cleaning system	Permanent connection , with on-site waste trap: Install a vacuum breaker in the wastewater line.
 Manual cleaning system	Unobstructed discharge with funnel waste trap: With an on-site waste trap, connect only discharge funnel.

6.5.2 Connecting the wastewater line to a permanent connection

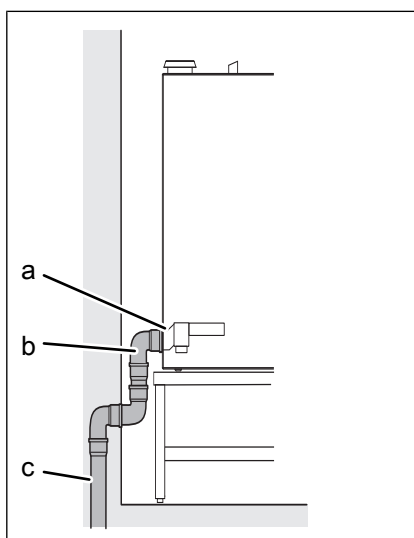
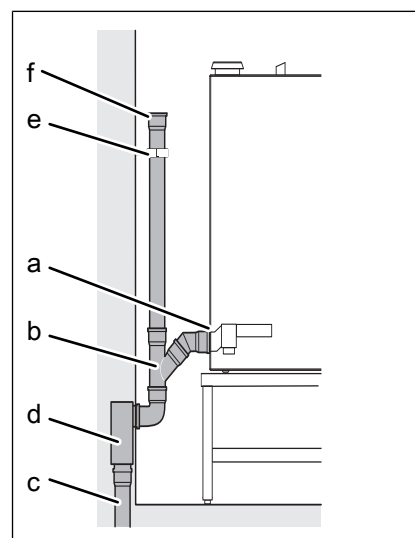


Image: Fixed sewer connection



- a Wastewater connection
- b Wastewater line
- c Wastewater system

- d Wastewater system trap
- e Pipe clamp
- f Vacuum breaker valve



If a waste trap is installed in the wastewater system, a vacuum breaker must be installed in the wastewater line.

Requirement Wastewater line complies with the specifications (see "Equipment and connection data")

1. Install the wastewater line up to the connection at the sewer system.
2. Secure the wastewater line with pipe clamps.
3. Fill the waste trap on the unit with tap water.
4. Fill out the Commissioning report.

6.5.3 Connecting a wastewater line with an unobstructed discharge

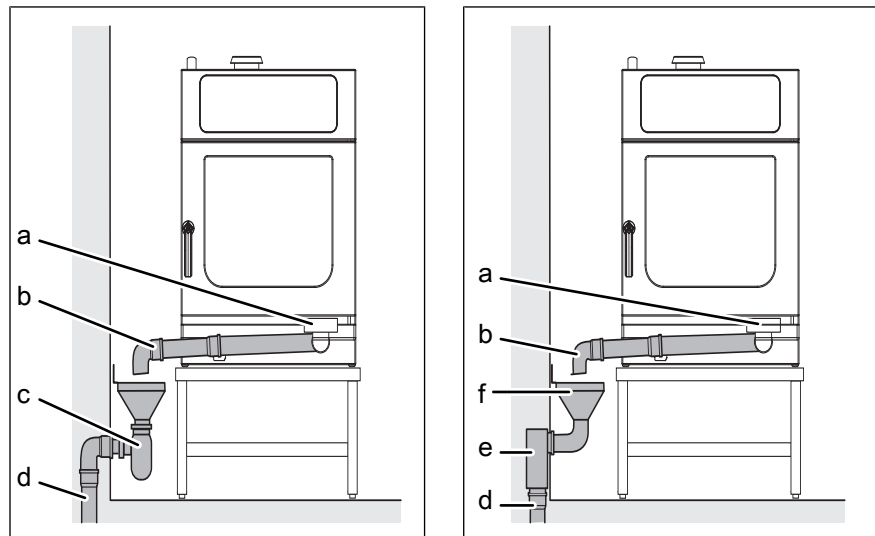


Image: Connecting the wastewater line to the discharge funnel

- | | |
|-------------------------|--------------------------|
| a Wastewater connection | d Wastewater system |
| b Wastewater line | e Wastewater system trap |
| c Funnel waste trap | f Discharge funnel |



Connect only the discharge funnel if a wastewater trap is installed in the wastewater system.

Requirement Wastewater line complies with the specifications (see "Equipment and connection data")

1. Connect the discharge funnel with waste trap to the sewer system.
2. Connect the wastewater line to the unit and route it as far as the discharge funnel.
3. Secure the wastewater line with pipe clamps.
4. Install the outlet of the wastewater line 20 mm above the discharge funnel.
5. Fill the discharge funnel with tap water.
6. Fill out the Commissioning report.

7 Installing the unit



CAUTION

Danger due to heavy weight of the unit (over 60 kg)

- Erect the unit with several people.
- Raise / lower the unit with suitable lifting equipment.



CAUTION

Risk of crushing from improper setup

- Protect the unit and work area during setup and alignment.



CAUTION

Risk of crushing fingers and hands when lifting and lowering the unit on the shelf plate

- Always lift and lower the unit (with suitable lifting equipment) carefully with two people.

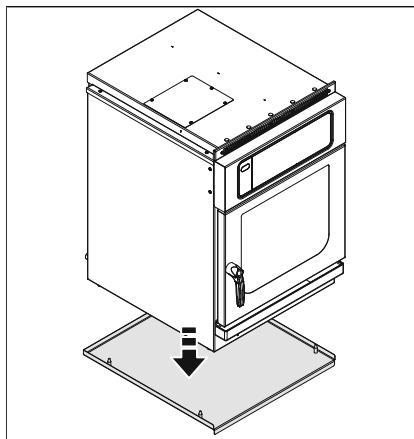


Image: Place the unit on the shelf plate

Requirement Power connection made
 Water connection made or prepared
 Wastewater connection made or prepared
 Housing closed

1. Place the unit over the stud bolts onto the shelf plate.
 ↳ The downward angle of the shelf plate is at the front.
2. Lift the unit with the shelf plate and push it into the assembly.
3. Carry out the remaining work for the connection of the unit (see "Connecting unit").
4. Fill out the commissioning report.

8 Checking operation



DANGER

Risk of personal injury and physical damage from unsuccessful operational check

- Do not put the unit into service.
- Contact customer service.

Requirement Power connection made
Water connection made
Wastewater connection made
Unit cleaned

8.1 Checking the controls

1. Switch on the unit and start any cooking program (see Operating instructions).
 - ↳ Set the cooking zone temperature to a higher temperature than the current cooking zone temperature.
 - ↳ The unit heats up.
 - ↳ Once the set temperature is reached, heating switches off.
 - ↳ The temperature no longer increases.
 - ↳ The controls are functioning.
2. Switch off the unit.
3. Fill out the Commissioning report.

8.2 Checking the monitoring of the cooking zone door

1. Switch on the unit and start any cooking program (see operating instructions).
 - ↳ The unit starts to heat.
 - ↳ The fan wheel is turning.
2. Open the cooking zone door during operation.
 - ↳ The unit shuts off the heating function.
 - ↳ The fan wheel comes to a stop.
 - ↳ The monitoring of the cooking zone door is functioning.
3. Close the cooking zone door.
4. Switch off the unit.
5. Fill out the commissioning report.

9 Putting the unit into service



If the unit is not put into service immediately after being connected and the function check, all inspections must be repeated.

- Requirement**
- Power connection made
 - Water connection established
 - Wastewater connection established
 - Exhaust connection made (if required by the customer)
 - Operation successfully checked
 - Housing closed
1. Instruct the operator.
 2. Fill out the commissioning report.

9.1 Filling out the commissioning report

General	Yes	No
Information from the nameplate entered? SN: _____ Typ: _____ E: _____ Bez: _____ Item-Nr.: _____ (if listed)	☐	☐
Obvious damage to the unit? What and where?: _____	☐	☐
Unit levelled?	☐	☐

Electrical connection	Yes	No
Power connection made properly?	☐	☐
☐ Equipotential bonding ☐ Power optimizing system		
☐ Floating contact ☐ ...		
Electrical connections made properly?	☐	☐
Residual-current protective device connected immediately before this unit?	☐	☐
Residual-current protective device connected before this and other units?	☐	☐
Connection voltage measured? Connection voltage: _____ (V)	☐	☐
The set transformer voltage T1: blue 0 V red _____ V		
Power connection converted to single-phase?	☐	☐
Relays changed as specified?	☐	☐
Single-phase power connection cable connected?	☐	☐

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Putting the unit into service

Basic control setting		Yes	No
Unit of temperature set?		☐	☐
☐ °C	☐ °F		
Altitude set?		☐	☐
☐ 0 — 999 m	☐ 1000 m — 1999 m		
☐ 2000 m — 2499 m	☐ 2500 m or higher		
80 % power set?		☐	☐
☐ 100 %	☐ 80 %		
Current voltage set?		☐	☐
Voltage: _____ V			
Audible signal volume set?		☐	☐
☐ quiet	☐ loud		
Volume unit set?		☐	☐
☐ ml	☐ fl.oz. (Imperial)		
☐ fl.oz. (U.S.)			
Power optimisation system set?		☐	☐
☐ On	☐ Off		

Water connection		Yes	No
Connection pressure within indicated range?		☐	☐
Connection pressure: _____ (_____) kPa (bar)			
Water connection made properly?		☐	☐
Lines and connections leak-tight?		☐	☐
Water connections connected with T-piece?		☐	☐
☐ Connected only to softened tap water	☐ Connected only to tap water		

Wastewater connection		Yes	No
Wastewater connection made properly?		☐	☐
☐ Waste trap in the building	☐ Aerator		
☐ Funnel drain	☐ Floor gutter		
Connection dimension of wastewater line: _____ mm			

Function check		Yes	No
Controls are functioning?		☐	☐
Monitoring of the cooking zone door is functioning?		☐	☐

Final notes		Yes	No
Was the unit put into service?		☐	☐
Comments:			

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Final notes	Yes	No
Operator trained?	☐	☐

Electrical installation was provided by:			
Company	Installer	City, date	Signature

Water installation was provided by:			
Company	Installer	City, date	Signature

Wastewater installation was provided by:			
Company	Installer	City, date	Signature

The function check was performed by:			
Company	Installer	City, date	Signature

Operator training was provided by:			
Company	Installer	City, date	Signature



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