HENNY PENNY
Engineered to Last

Read the operating instructions prior to commissioning

Installation manual

FlexFusion® ELECTRIC PLATINUM COMBI

Model

FPE-**615**
FPE-**621**
FPE-**115**
FPE-**121**
FPE-**215**
FPE-**221**

FLEXFUSION
PLATINUM

FM08-453-G • 7/14/2020

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1 Introduction

1.1 About this manual

The installation instructions are part of the unit and contain information on safe installation of the unit.

Observe the following notes and adhere to them:

- Read the installation instructions completely prior to installation.
- Make the installation instructions available to the installation fitter at the operating site at all times.
- Preserve the installation instructions throughout the service life of the unit.
- Insert any additions from the manufacturer.
- Pass on the installation instructions to any subsequent operator of the unit.

Target group The target group of the installation instructions is trained qualified personnel that is familiar with installing and operating the unit.

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

1.1.1 Explanation of signs

⚠ DANGER

Imminent danger

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

⚠ WARNING

Potential danger

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

⚠ CAUTION

Dangerous situation

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

NOTICE

Property damage

Failure to comply can cause property damage.

INFORMATION

Information

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 relating to it.

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1.2 Personnel qualifications

Explanation of qualification

Skilled personnel	• A skilled person is someone who, on the basis of their technical training, knowledge and experience as well as familiarity with the applicable standards, can assess the assigned work and recognize possible dangers.

Type of activity	Qualification
Electrical connection	• Electrician • Specialized training • Employee of the responsible technical company
Water connection	• Water specialist • Specialized training • Employee of the responsible technical company
Waste water connection	• Waste water specialist • Specialized training • Employee of the responsible technical company

1.3 Use of the unit

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

1.4 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,
- Improper startup, operation or maintenance of the unit,
- Problems resulting from failure to observe these instructions.

2 Safety instructions

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 installation fitter must be familiar with regional regulations and observe them.

The installation fitter must observe the safety instructions in these installation 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 installation, 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.

Organizational measures

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

- Identify danger zones when transporting, installing and connecting the unit.
- Prior to starting the installation tasks, notify any operator present about the procedure.
- Prior to starting the installation task, 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.

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Installation

Risk of property damage and personal injury from improper installation

- Ensure that the installation area has adequate load-bearing capacity.
- Wear safety shoes and protective gloves.

Electrical connection

Risk of fire from improper connection

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

Danger 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 the system is dead.
- Use only insulated tools.

Unit on casters

Danger of a line breaking if subjected to high tensile load

- Using a chain to provide strain relief for the connection lines, secure the unit at the installation site so that the connection lines are not put under tension when the unit is moved. The strain relief must be designed for a tensile load of at least 0.6 kN.

Commissioning

Risk of property damage and personal injury from improper commissioning

- Read the operating instructions prior to commissioning. Observe the safety instructions in these installation instructions and in the "Safety information" chapter of the operating instructions.
- Only put the unit into service after a successful function test in its assembled state.
- 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

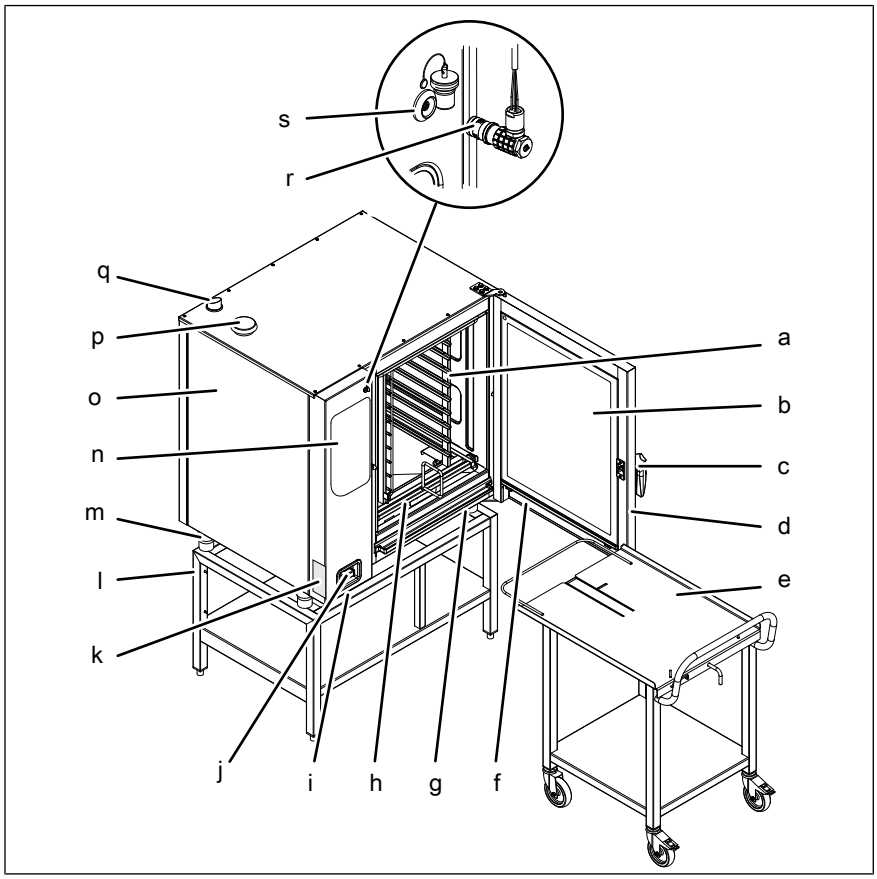

Image: Unit with tray rack trolley

a	Tray rack	k	Nameplate
b	Insulating disk	l	Base frame (optional)
c	Door handle	m	Unit leg
d	Cooking chamber door	n	Operating unit
e	Tray rack trolley (optional)	o	Housing
f	Vapor drainage channel, door	p	Air inlet nozzle
g	Vapor drainage channel, unit	q	Steam outlet nozzle
h	Guide rail for tray rack (optional)	r	Core temperature sensor (optional)
i	USB port (covered)	s	Core temperature sensor connection (optional)
j	Hand shower (optional)		

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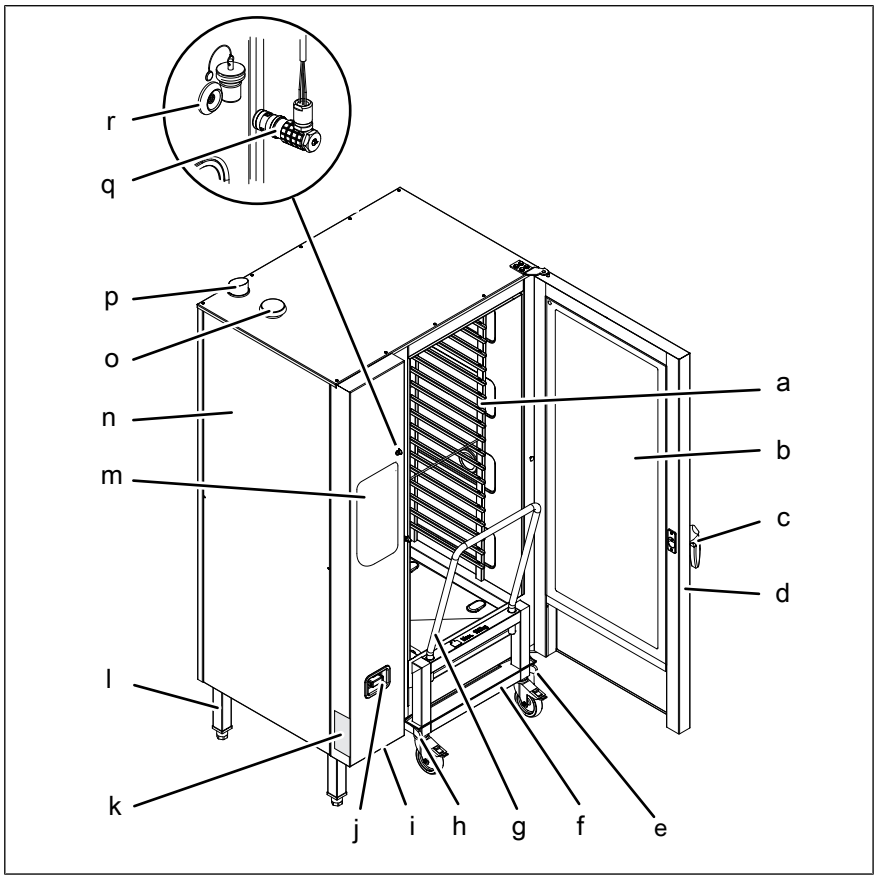

Image: Unit with tray trolley

a	Tray rack	j	Hand shower
b	Insulating disk	k	Nameplate
c	Door handle	l	Unit leg
d	Cooking chamber door	m	Operating unit
e	Guide rail (right)	n	Housing
f	Tray trolley	o	Air inlet nozzle
g	Handle bar	p	Steam outlet nozzle
h	Guide rail (left)	q	Core temperature sensor (optional)
i	USB port (covered)	r	Core temperature sensor connection (optional)

3.2 Unit and connection data

Fastening to the floor

Absolutely essential for the following unit types	
FPE615	Only in conjunction with base cabinet and underframe
FPE621	
FPE115	
FPE121	

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Absolutely essential for the following unit types	
FPE121-621	Only in conjunction with stacking kit
FPE115-621	
FPE121-615	
FPE115-615	
FPE221 with casters	

Size	615	621	115	121	215	221
Dimensions						
Unit Length x Width x Height (mm (in))	997 (39,25) x 799 (31,46) x 790 (31,1)		997 (39,25) x 799 (31,46) x 1060 (41,73)		1075 (42,32) x 813 (32,01) x 1960 (77,17)	1115 (43,9) x 999 (39,33) x 1960 (77,17)
Dimensions with casters						
Unit Length x Width x Height (mm (in))						1366 (53,78) x 1126 (44,33) x 1960 (77,17)
Weight						
Unit ≈ (kg (lb))	120 (264,6)	125 (275,6)	140 (308,7)	145 (319,7)	305 (672,5)	313 (690,2)
Weight with casters						
Unit ≈ (kg (lb))						345 (760,7)
Emissions						
Noise level (db(A))	< 70					
Steam output (g/h (oz/h))	2760 (97,35)	5540 (195,41)	4210 (148,5)	8080 (285,01)	8400 (296,3)	16140 (569,31)
Steam output (m³/h (cuft/h))	4,7 (165,9)	9,4 (331,7)	7,1 (250,5)	13,7 (483,4)	14,2 (501,1)	27,4 (966,9)
Latent heat dissipation (W)	1872	3762	2862	5490	5706	10962
Sensible heat dissipation (W)	1248	2508	1908	3660	3804	7308
With condensation hood						
Steam output (g/h (oz/h))	830 (29,28)	1660 (58,55)	1260 (44,44)	2430 (85,71)	2520 (88,89)	---
Steam output (m³/h (cuft/h))	1,4 (49,4)	2,8 (98,8)	2,1 (74,1)	4,1 (144,7)	4,3 (151,7)	---
Latent heat dissipation (W)	562	1129	859	1647	1712	---
Sensible heat dissipation (W)	1248	2508	1908	3660	3804	---
The sensible and latent heat amounts are determined in Germany on the basis of VDI 2052 at a connection voltage of 400 V. The applicable regional regulations may vary from this.						
Operating environment						
Temperature (°C (°F))	5 (41) — 40 (104)					

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Size	615	621	115	121	215	221
Humidity (%) non-condensing	95					
Electrical connection						
Protective system	IPX5, IPX6 (optional)					
Type of connection	3PE / AC 50/60Hz, 3NPE / AC 50/60Hz					
Voltage (V)	**200**					
Connected load (kW)	10.1	16.3	14.7	25.5	29.4	50.9
Fuse (A)	3 x 35	3 x 50	3 x 50	3 x 80	3 x 100	3 x 180
Voltage (V)	**208**					
Connected load (kW)	10.2	17.4	15.7	27.3	31.4	54.6
Fuse (A)	3 x 35	3 x 50	3 x 50	3 x 80	3 x 100	3 x 180
Voltage (V)	**220**					
Connected load (kW)	11.6	19.7	17.7	30.8	35.4	61.4
Fuse (A)	3 x 35	3 x 63	3 x 63	3 x 100	3 x 125	3 x 180
Voltage (V)	**230**					
Connected load (kW)	12.6	21.4	19.3	33.6	38.6	67
Fuse (A)	3 x 35	3 x 63	3 x 63	3 x 100	3 x 125	3 x 180
Voltage (V)	**240**					
Connected load (kW)	13.7	23.3	21	36.5	42	72.9
Fuse (A)	3 x 35	3 x 63	3 x 63	3 x 100	3 x 125	3 x 180
Voltage (V)	**380**					
Connected load (kW)	9.4	18.9	14.4	27.6	28.7	55
Fuse (A)	3 x 16	3 x 35	3 x 25	3 x 50	3 x 50	3 x 100
Voltage (V)	**400**					
Connected load (kW)	10.4	20.9	15.9	30.5	31.7	60.9
Fuse (A)	3 x 16	3 x 35	3 x 25	3 x 50	3 x 50	3 x 100
Voltage (V)	**415**					
Connected load (kW)	11.2	22.5	17.1	32.8	34.1	65.5
Fuse (A)	3 x 16	3 x 35	3 x 25	3 x 50	3 x 50	3 x 100
Voltage (V)	**440**					
Connected load (kW)	10.4	20.9	15.8	30.5	31.5	60.9
Fuse (A)	3 x 16	3 x 35	3 x 25	3 x 50	3 x 50	3 x 100
Voltage (V)	**480**					
Connected load (kW)	12.3	20.9	18.9	32.6	37.6	65.1
Fuse (A)	3 x 16	3 x 35	3 x 25	3 x 50	3 x 50	3 x 100
Softened drinking water connection						
Water type	Softened drinking water, cold					
Carbonate hardness $CaCO_3$ (mmol/l (ppm))	< 0,9 (90 ppm)					

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Size	615	621	115	121	215	221
Chloride Cl (mg/l)	< 100					
Iron FE (mg/l)	< 0.2					
Connection pressure (kPa (psi))	200 (29) — 600 (87)					
Connection (")	R 3/4					
Drinking water connection						
Water type	Drinking water, cold					
Carbonate hardness $CaCO_3$ (mmol/l (ppm))	< 4 (400 ppm)					
Connection pressure (kPa (psi))	200 (29) — 600 (87)					
Connection (")	R 3/4					
Water consumption, steaming						
Softened drinking water (l/h (gal/h))	16 (4,23)	21 (5,55)	18 (4,76)	24 (6,34)	36 (9,51)	48 (12,68)
Water consumption, combisteaming						
Softened drinking water (l/h (gal/h))	3,5 (0,92)	4,6 (1,22)	4 (1,06)	5,3 (1,4)	8 (2,11)	10,6 (2,8)
Water consumption, WaveClean cleaning program						
Softened drinking water (l (gal))	3 l (0,79)					
Drinking water (l (gal))	32 l (8,45)					
Waste water connection						
Waste water type	Dirty water, maximum 80 °C (176 °F)					
Connection to unit (mm (in))	50 (1,97)					
Maximum length (m (ft))	1 (3,3) with a drop of at least 5 % or 3°					
Temperature-resistant to (°C (°F))	95 (203)					
Maximum flow rate (l/min (gal/min))	10 (2,64)					
Exhaust air connection						
Connection to unit (mm (in))	53 (2,09)				73 (2,87)	
Maximum length (m (ft))	2,5 (8,2)					
Temperature-resistant to (°C (°F))	180 (356)					

Transformer voltage

Type of connection	3NPE / AC 50/60 Hz, 3PE / AC 50/60 Hz	
Voltage range (V)	**208 — 240**	
Transformer	**T1**	
Wire identification or color	blue	red
Voltage measured (V)	Voltage at transformer (V)	
208	0	208
240	0	240

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Basic setting of the control

Basic setting	Parameters	Standard value	Range of adjustment	Explanation
Supply voltage	14	400	100 — 500 V	Enter the local, mean voltage between the line conductors.
Date / time			yyyy - mm - dd	Year - Month - Day
			hh : mm	Hour : Minute
Altitude	2	0 — 999	0 — 999 m (3277 ft)	Request the altitude above sea level from the local weather station. If the altitude is unknown, enter 0 — 999 m (3277 ft).
			1000 m (3280 ft) — 1999 m (6557 ft)	
			2000 m (6560 ft) — 2499 m (8197 ft)	
			2500 m (8200 ft) or higher	
Volume of audible signal		Medium	Individual	Sets the volume.
Temperature unit setting	1	°C	°C	Celsius (°C)
			°F	Fahrenheit (°F)
Volume unit	34	ml	(ml)	Milliliter (ml)
			(fl.oz.)	Fluid ounce (fl.oz.)
	35	Imperial (fl.oz.)	Imperial (fl.oz.)	Imperial fluid ounces
			U.S. (fl.oz.)	U.S. fluid ounces
Water filter maintenance	44	0	0 — 99900 l (26393,66 gal)	Water quantity up to the maintenance message.
				0 = No maintenance message
Network		DHCP	Network address and DHCP	Select and set interface.
Kitchen control technology	652	Disabled	0 = Disabled 1 = Active	Indicates whether the kitchen guiding system is in use.
	659	Ethernet	0 = Ethernet 1 = Serial	Type of signal transmission (interface)
	653	1188	0 — 65535	TCP port setting
	654	254	0 — 254	Unit address
80 % power	3	100	80 %	Power can be limited to 80 % (for special applications).
			100 %	
Power optimization system	42	Off	On	If a power optimization system is connected, "On" must be selected for the unit to heat.
			Off	

Basic setting	Parameters	Standard value	Range of adjustment	Explanation
Settings parameters				1. Set parameters via the roller. 2. Tap the "Read" button to display the set values. 3. Specify another value via the button panel. 4. Press the "Write" button to save the new value.

Basic setting of control (Advanced)

Basic setting	Parameters	Standard value	Range of adjustment	Explanation
Condensation-hood after-running time	5	60	0 – 600 s	Time extension for the condensation hood, after the cooking chamber door has been opened
Generator mode	45	0	0 = No 1 = Yes	When a generator is used to supply electricity
Steam elimination	48	1	0 = Low 1 = Normal 2 = High	Sets the steam elimination level
Time format	675	0	0 = 24 h 1 = 12 h	Set the 12-h or 24-h time format
Format for cooking program times	676	0	0 = hh:mm 1 = mm:ss 2 = automatic	Display format for cooking program times

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4 Transporting the unit

⚠ CAUTION

Risk of property damage and personnel injury from tipping unit

- Stay clear of lifted unit.
- Move lifted unit carefully.

⚠ CAUTION

Risk of property damage and personnel injury from tipping unit

- Do not move the unit to the installation site by using the casters.

NOTICE

Risk of property 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

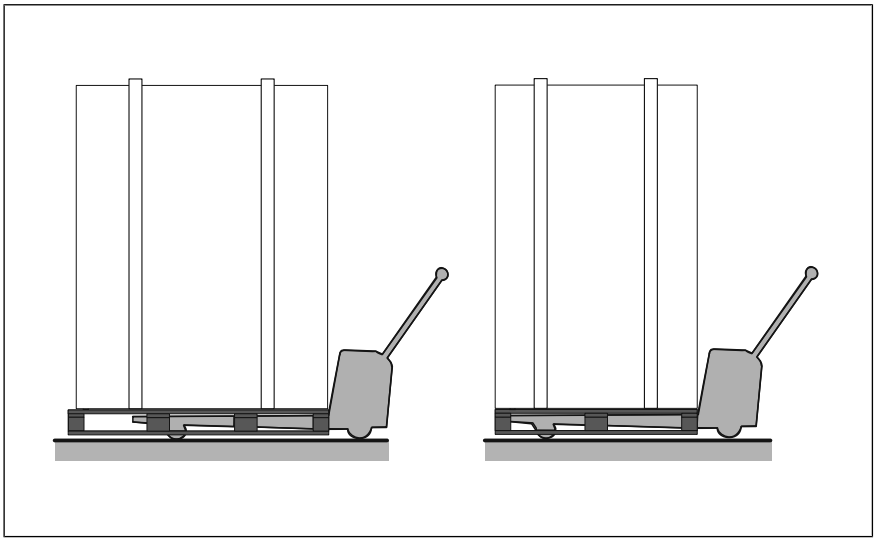

Image: Lengthwise and crosswise transport on pallet

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

4.2 Unpacking the unit

⚠ CAUTION

Risk of injury from sharp edges

- Wear protective gloves.

INFORMATION

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 all packaging material from the cooking chamber.
4. Clean the unit (See Operating instructions).
5. Enter the information from the nameplate into the Start-up operation report.
6. Enter the information from the nameplate into the Operating instructions.

5 Installing the unit

⚠ WARNING

Risk of burns from spraying hot fat

- Install deep-fat fryers outside the range of the hand shower.

⚠ WARNING

Risk of tipping of the unit with casters

If the unit with casters will be tipped on purpose, the unit can tip over and cause serious injuries.

- Do not tip the unit.

⚠ CAUTION

Risk of crushing from improper installation

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

⚠ CAUTION

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

- Observe applicable regional fire prevention regulations.

NOTICE

Risk of property damage from overheating of the unit

- Do not install the unit close to heat sources.

5.1 Maintaining minimum clearances

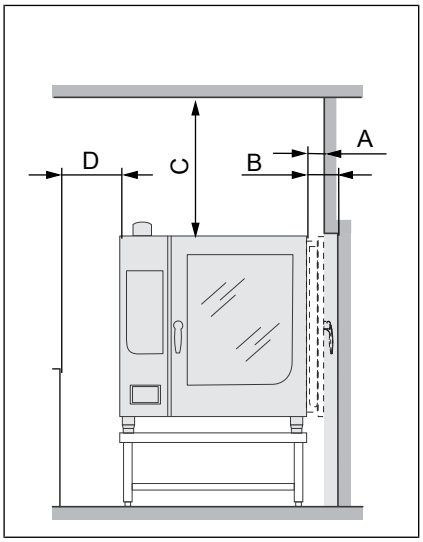

Image: Minimum clearances to walls, ceiling or units

A	B	C *	D **
50 (1,97)	100 (3,94)	---	50 (1,97)

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A	B	C *	D **
All dimensions in mm (in)			
* Depends on the kitchen ventilation system and quality of ceiling material			
** For service work 500 mm (19,69 in) recommended			

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

- Left, right and rear: at least 50 mm (1,97 in).
- For service work 500 mm (19,69 in) on the left is recommended.
- For parking the tray trolley, 800 mm (31,5 in) on the left.
- Clearance from heat sources (baking oven), 500 mm (19,69 in) on the left.
- Clearance to deep-fat fryers, at least one length of the hand shower at left and right.

5.2 Lifting the unit off the pallet

⚠ CAUTION

Risk of property damage and personnel injury from tipping unit

- Stay clear of lifted unit.
- Move lifted unit carefully.

NOTICE

Risk of property damage from lifting the unit incorrectly

- Place the forks of the pallet truck next to the siphon.

Prerequisite Unit unpacked
Protective film removed
Unit cleaned
Parking brakes of the casters locked

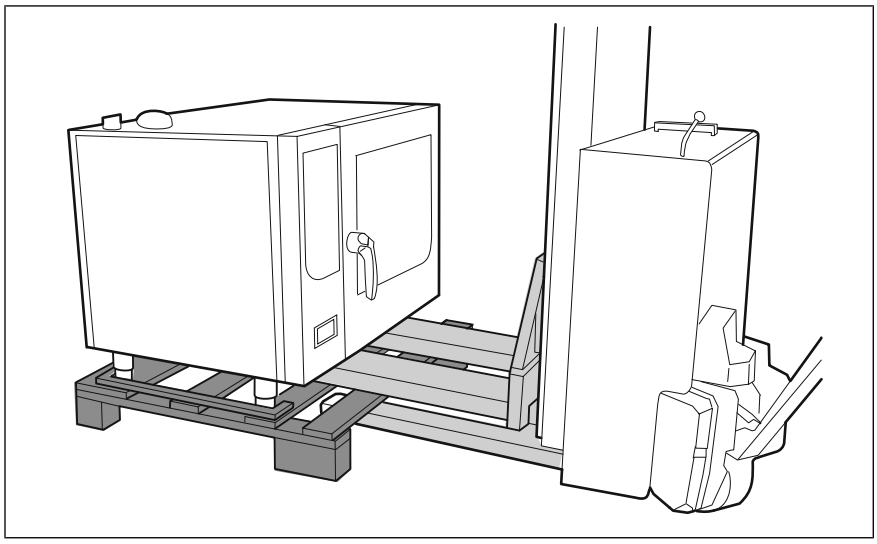

Image: Lifting the unit off the pallet

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1. Slide the forks of the pallet truck under the unit and to the right of the siphon.
2. Lift the unit off the pallet.

5.3 Installing the unit on the unit legs

Prerequisite The floor must carry the weight of the unit

1. Lift the unit with the pallet truck.
2. Move the unit to the installation site.
3. Place the unit on the floor.
4. Set up the unit in accordance with the planning drawing (see "Planning drawing").

5.4 Setting up the unit on a base frame

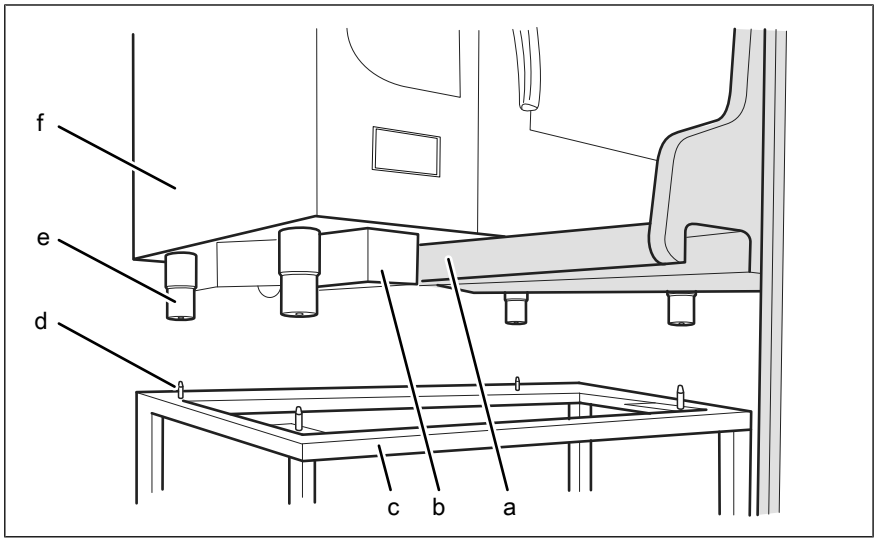

Image: Setting up the unit on a base frame

a	Lift fork	d	Stud bolt
b	Waste trap on the unit	e	Unit leg
c	Base frame	f	Unit

Prerequisite The base frame must carry the weight of the unit

Base frame levelled

Base frame must be set up in accordance with the planning drawing

1. Lift the unit.
2. Place the unit over the stud bolts and onto the base frame.

⚠ CAUTION

Risk of scalding due to spillage of hot cooked food

- Attach stickers if the upper insertion rails are higher than 1,6 m (5,3 ft).

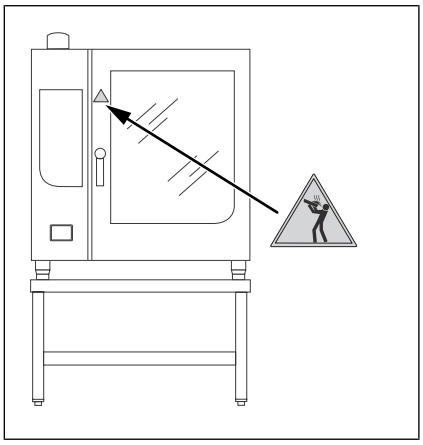

Image: Attach warning sign regarding the shelf height

3. Clean the adhesion surface for the sticker.
4. Attach the sticker to the cooking chamber door at a height of 1,6 m (5,3 ft).

5.4.1 Installing the support rack

Depending on the version, the base frame can be equipped with a hang-in frame.

The hang-in the frame is used to hold containers, baking sheets and grates.

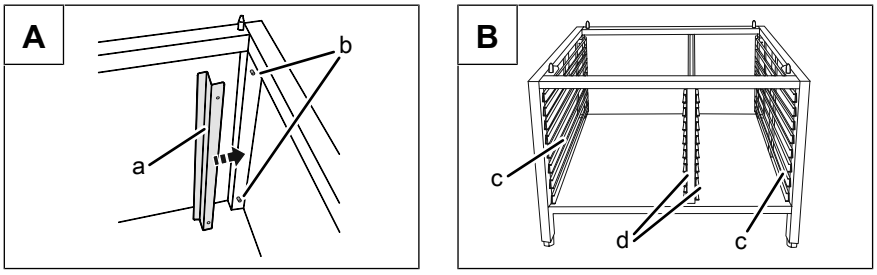

Image: A Stop profile, B Hang-in frame

a Stop profile
b Bolt
c Outboard support rack
d Inboard support rack

Prerequisite 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.

5.5 Aligning the unit

5.5.1 Aligning countertop unit

Prerequisite Base frame levelled

→ Level the unit by screwing the equipment legs in or out.
→ Fill out the Start-up operation report.

5.5.2 Aligning a floor-standing unit

NOTICE

Risk of water discharge from leaking cooking chamber

The cooking chamber will leak if the tray trolley is not aligned.

- Operate a floor-standing unit only with the tray trolley.
- Align the tray trolley carefully.

INFORMATION

The tray trolley is needed to align a floor-standing unit.

Prepare the tray trolley.

Aligning tray trolley

INFORMATION

Level a unit with casters by placing spacers between the casters and the unit.

Prerequisite The floor under and in front of the unit is flat

1. Level the unit by screwing the equipment legs in or out.
2. With poor floor conditions, place spacers on the casters of the tray trolley.
3. Open cooking chamber door.
4. Move tray trolley into the unit until it stops and check the alignment.
5. Close the cooking chamber door.
   ↪ The sheet metal sealing strip on the tray trolley should make full contact (no gaps) with the door seal.
   ↪ The shelves in the unit are horizontal.
6. Fill out the Start-up operation report.

Aligning tray trolley with insertion system

The Combisteamer can be equipped with the EasyIn insertion system (optional).

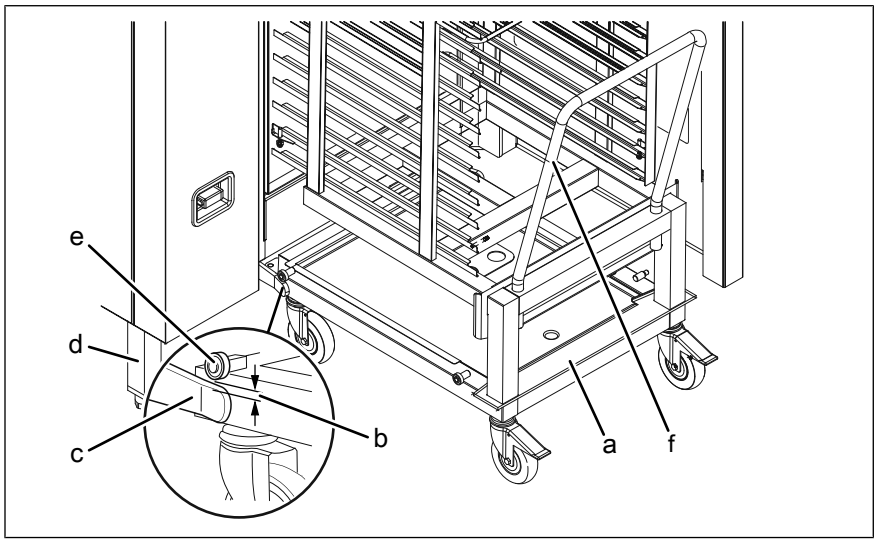

Image: Aligning tray trolley with insertion system

a	Tray trolley	d	Unit leg
b	Distance	e	Support roller
c	Guide rail	f	Handle bar

1. Level the unit by screwing the equipment legs in or out.
2. Open cooking chamber door.
3. Place the tray trolley against the guide rails.
4. Screw the unit legs in or out until the rollers are 1 mm (0,04 in) — 5 mm (0,2 in) over the guide rails.
5. Retract the tray trolley.
6. Level the guide rails.
7. Move tray trolley into the unit until it stops and check the alignment.

   ↳ The support rollers of the inserted tray trolley no longer have floor contact.
8. Remove the push handle.
9. Close the cooking zone door.
10. Fill out the start-up operation report.

5.6 Fastening the unit to the floor

5.6.1 Securing the unit to prevent tipping

⚠ WARNING

Risk of accident from insufficient fastening

Unit can tip over

- Depending on the unit type, suitable measures must be taken to fasten the unit to the floor.
- Comply with the requirements for the condition of the floor.
- Comply with the requirements for the means of fastening.
- Follow the manufacturer's instructions for using the means of fastening.

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Depending on the size, it is essential that certain combisteamer types or combisteamers used in combination with a Stapelkit (stacking kit), a recirculation hood, an underframe or base cabinet be secured to prevent tipping.

Unit types that must be secured to prevent tipping (see "Unit and connection data").

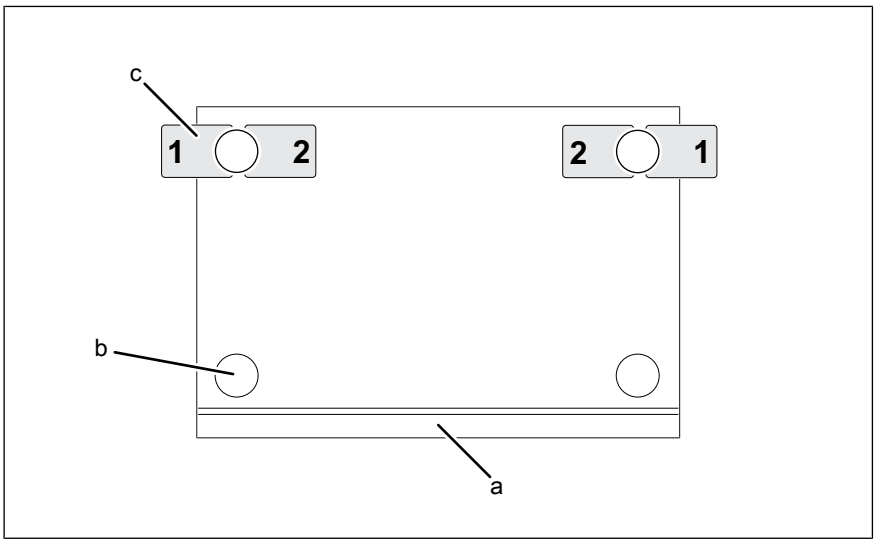

Image: Arrangement of the floor plates (view from above)

a Cooking chamber door
b Unit leg or underframe
c Floor plates

To prevent the unit from tilting, a special fastening kit is supplied by the manufacturer or is available as an accessory.

The fastening kit contains two floor fasteners and all components required to bolt or bond to the floor.

The unit or underframe is fastened by means of two floor fasteners as shown in the drawing.

Floor without steam barrier

In the case of floors without a steam barrier, the floor plates are bolted to the floor using the bolts provided.

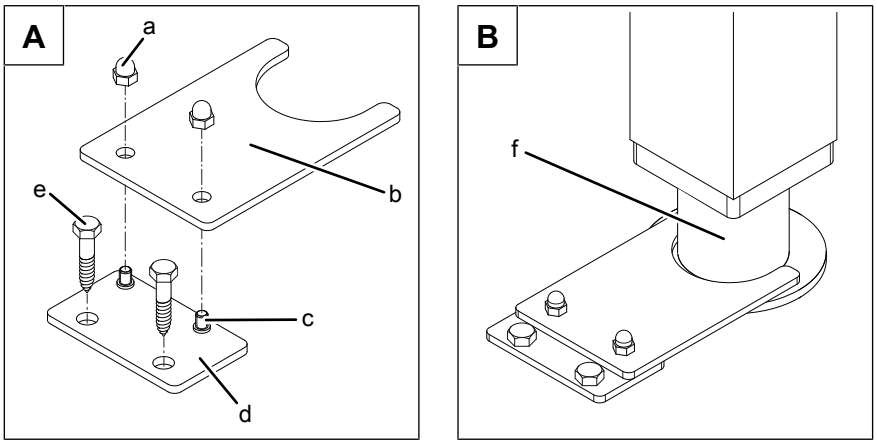

Image: A: Position of floor plate; B: floor plate bolted to the floor

a	Cap nut	d	Floor plate
b	Holding plate	e	Lag bolt
c	Upright bolt	f	Unit leg

Prerequisite Floor capable of accommodating the weight of the unit

Floor must be clean and suitable for the manner fastening

Unit set up and aligned in accordance with the planning drawing

1. Insert the floor plate from the fastening kit into the retainer as shown in the drawing.
2. Screw on the cap nuts hand-tight.
3. Align the floor fastener in position 1-1 or 2-2 on the unit leg or underframe as shown in the drawing and mark the fastening holes on the floor.
4. Mark the position of all unit legs or underframe on the floor.
5. Using suitable lifting equipment, move the unit so that the holes can be drilled in the floor.
6. Drill holes with a diameter matching that of the anchor sufficiently deep in the floor.
7. Carefully place the unit in the installation position.
8. Screw on cap nuts and remove the retainer from the floor plate.
9. Using the anchors and fastening screws provided, screw the floor plate to the floor.
10. Ensure that a tight seal against the floor has been reestablished after the fastening screws are installed.
11. Place retainer on the floor plate and secure using cap nuts.
12. Complete the start-up operation report.

Floor with steam barrier

In the case of floors with a steam barrier, the floor plates are not screwed to the floor but fastened with the enclosed adhesive.

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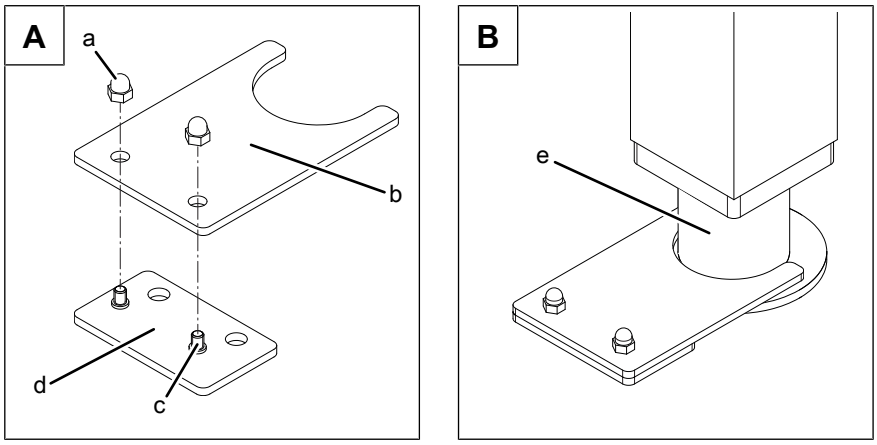

Image: A: Position of floor plate; B: floor plate glued to the floor

a Cap nut
b Holding plate
c Upright bolt
d Floor plate
e Unit leg

Prerequisite Floor capable of accommodating the weight of the unit

Floor must be clean and suitable for the manner fastening

Unit set up and aligned in accordance with the planning drawing

1. Insert the floor plate from the fastening kit into the retainer as shown in the drawing.
2. Screw on the cap nuts hand-tight.
3. Align the floor fasteners in position 1-1 or 2-2 on the unit leg or underframe as shown in the drawing and mark the floor.
4. Screw on cap nuts and remove the retainer from the floor plate.
5. Using the adhesive provided, fasten the floor plates to the floor.
   ↳ Follow the manufacturer's instructions regarding the adhesive.
   ↳ Apply the adhesive in accordance with the manufacturer's instructions.
   ↳ Observe the drying time specified in the manufacturer's instructions.
6. Place retainers on the floor plates and secure using cap units.
7. Complete the start-up operation report.

5.6.2 Securing the unit to prevent slipping

If necessary, the size 2XX combisteamer can be secured to prevent movement (optional).

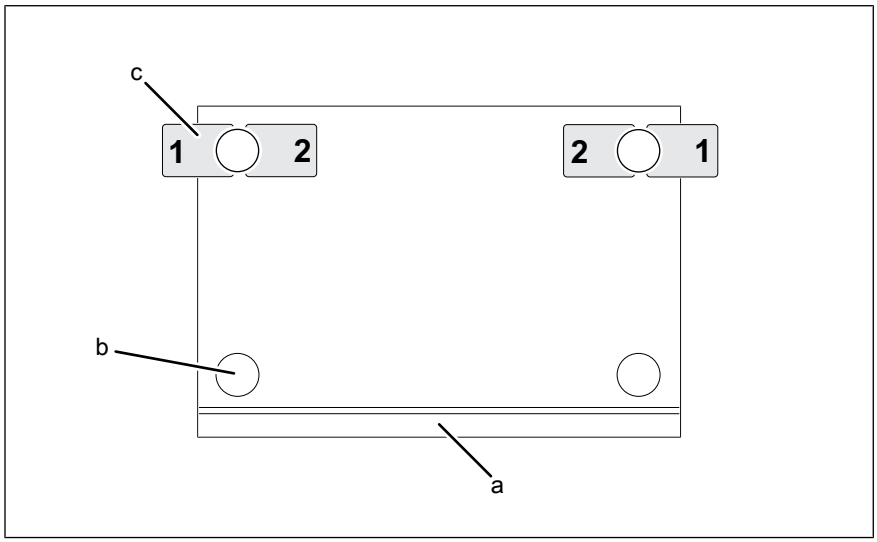

Image: Arrangement of the floor plates (view from above)

a Cooking chamber door
b Unit leg or underframe
c Floor plates

A special fastening set with floor plates for securing the unit against sliding is available from the manufacturer as an accessory.

The fastening kit contains two floor plates and all components required to bolt or bond to the floor.

The unit is fastened by means of two floor plates, as indicated in the drawing.

Floor without steam barrier

In the case of floors without a steam barrier, the floor plates are bolted to the floor using the bolts provided.

Prerequisite Floor capable of accommodating the weight of the unit

Floor must be clean and suitable for the manner fastening

Unit set up and aligned in accordance with the planning drawing

1. Align the floor plates in position 1-1 or 2-2 on the unit leg as shown in the drawing and mark the fastening holes on the floor.
2. Mark the position of all unit legs on the floor.
3. Using suitable lifting equipment, move the unit so that the holes can be drilled in the floor.
4. Drill holes with a diameter matching that of the anchor sufficiently deep in the floor.
5. Carefully place the unit in the installation position.
6. Using the anchors and fastening screws provided, screw the floor plates to the floor.
7. Ensure that a tight seal against the floor has been reestablished after the fastening screws are installed.
8. Complete the start-up operation report.

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Floor with steam barrier

In the case of floors with a steam barrier, the floor plates are not screwed to the floor but fastened with the enclosed adhesive.

Prerequisite Floor capable of accommodating the weight of the unit

Floor must be clean and suitable for the manner fastening

Unit set up and aligned in accordance with the planning drawing

1. Align the floor plates in position 1-1 or 2-2 on the unit leg as shown in the drawing and mark the floor.
2. Using the adhesive provided, fasten the floor plates to the floor.
   ↳ Follow the manufacturer's instructions regarding the adhesive.
   ↳ Apply the adhesive in accordance with the manufacturer's instructions.
   ↳ Observe the drying time specified in the manufacturer's instructions.
3. Complete the start-up operation report.

5.6.3 Units with casters: Fasten both caster stops to the floor

Prerequisite Floor capable of accommodating the weight of the unit

Floor must be clean and suitable for the manner fastening

1. Place the unit into the final position.
2. Place the caster stops in the correct position at the rear casters.
3. Mark the position of the caster stops on the floor.
4. Remove the unit.
5. Using the required hardware depending on the floor, fasten the caster stops to the floor.
6. Follow the manufacturer´s instructions regarding the hardware.

5.7 Units with casters: Securing the unit to the wall

Prerequisite Wall capable of 0,6 kn pulling force

Tether must be shorter then the length of the water- , electric-, or wastewater connection

1. Place the unit into the final position using the caster stops.
2. Mark the right place on the wall for the wall fastener (not included) holding the tether.
3. Using the required hardware depending on the wall, fasten the wall fastener to the wall.
4. Follow the manufacturer´s instructions regarding the hardware.
5. After fastening the tether, move the unit to check, if the connections will be secured by the tether.

6 Connecting the unit

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before working on the unit, ensure that the unit is dead.
- Do not operate the unit with the housing open.

⚠ CAUTION

Risk of injury from sharp edges

- Wear protective gloves.

NOTICE

Risk of property 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 side wall

Removing the side wall

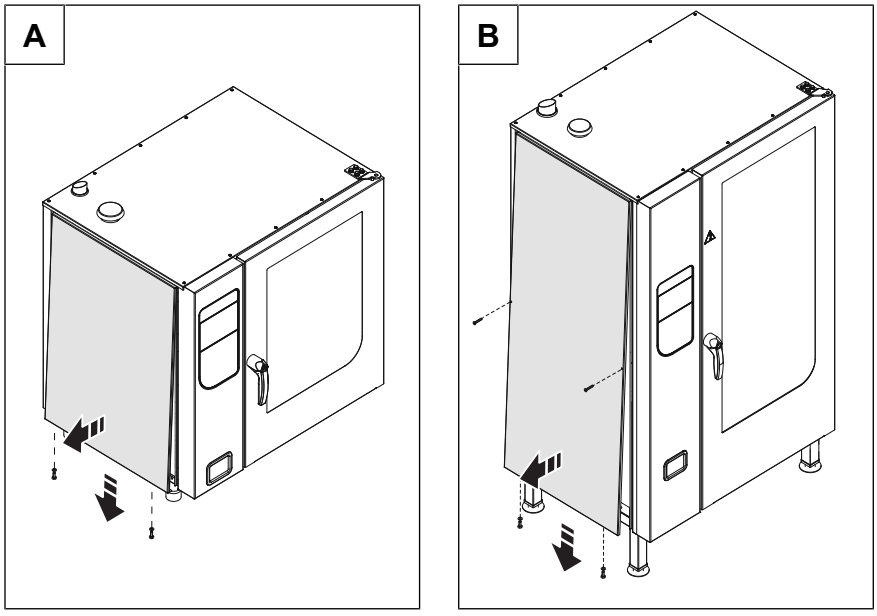

Image: A Sizes 6.x and 10.x; B Size 20.x

1. Unscrew the screws in the side wall.
2. Pull the bottom edge of the side wall forwards.
3. Remove the side wall.

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Attaching the side wall

NOTICE

Risk of property damage from leaky housing

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

1. Insert top edge of side wall.
2. Carefully push the bottom of the side wall inward.
3. Secure the bottom of the side panel with screws.
4. Check that the side wall is in contact with the unit on all sides.

6.2 Making the electrical connection

Electrical installation work

Electrical installation work on the electric system and the unit may only be performed by a specialist company, which is approved by the electric utility company in the particular region. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the electric utility company responsible.

Technical qualifications for electrical installation tasks

Electrical installation tasks on the electrical system and the unit may be carried out only by an electrician provided by the specialist company contracted.

NOTICE

Risk of property damage from wrong supply voltage

- Prior to connecting, measure the supply voltage and check the voltage set on the transformer inside the unit.

The unit must be connected in accordance with the information on the nameplate and the instructions of this manual.

Wiring diagram

The wiring diagram is included with the unit.

Electrical connection line

Minimum requirements for the unit's electrical connection line to the electrical supply mains:

Connection	Electrical connection line
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 connector.	
Permanent connection for fixed installation with a hard-wired line directly connected to the unit.	PVC sheathed cable for permanent installation 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 connection, install an all-pin separating device before the unit.

Install an all-pin separating device if the unit will be connected permanently to the electrical supply 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 electrical supply mains, use plugs and sockets according to IEC60309.

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

Insulation monitoring

In the case of an unearthed network (IT network), the unit can be incorporated into the insulation monitoring.

Fault current device

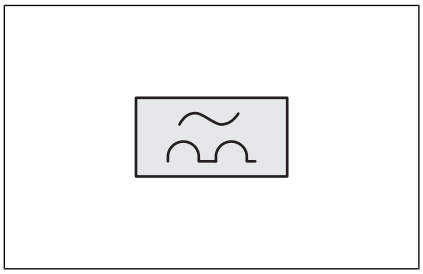

Image: RCD switch type A circuit symbol

The unit can be connected to a fault current device.

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

If the unit is connected to electrical supply mains without a neutral conductor, a type B fault current circuit breaker (RCD type B), which is sensitive to all types of current, must be installed.

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The unit generates a small fault current through use of special electronic components. To ensure that the residual current device does not trip during normal operation, each unit should have its own residual current device.

Potential equalization

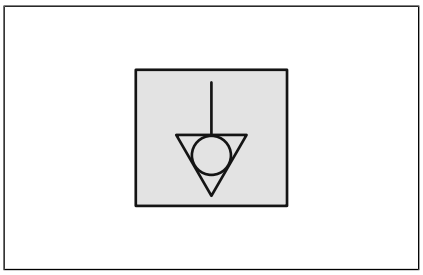

Image: Potential equalization symbol

The unit can be included in a potential equalization system by means of appropriately sized wiring.

6.2.1 Adjusting the unit to the supply voltage

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before working on the unit, ensure that the unit is dead.
- Do not operate the unit with the housing open.

NOTICE

Risk of property damage from wrong supply voltage

- Prior to connecting, measure the supply voltage and check the voltage set on the transformer inside the unit.

NOTICE

Risk of property damage from wrong supply voltage

- If the unit is converted from 208 V to 240 V, the power output must be limited to 80 % (see "Basic setting").

The unit is set to a specific supply voltage or voltage range when delivered.

If the voltage on site differs from the preset supply voltage, damage may occur.

Prior to connecting the unit, you must measure the supply voltage, check the transformers in the unit and reposition the connections if necessary.

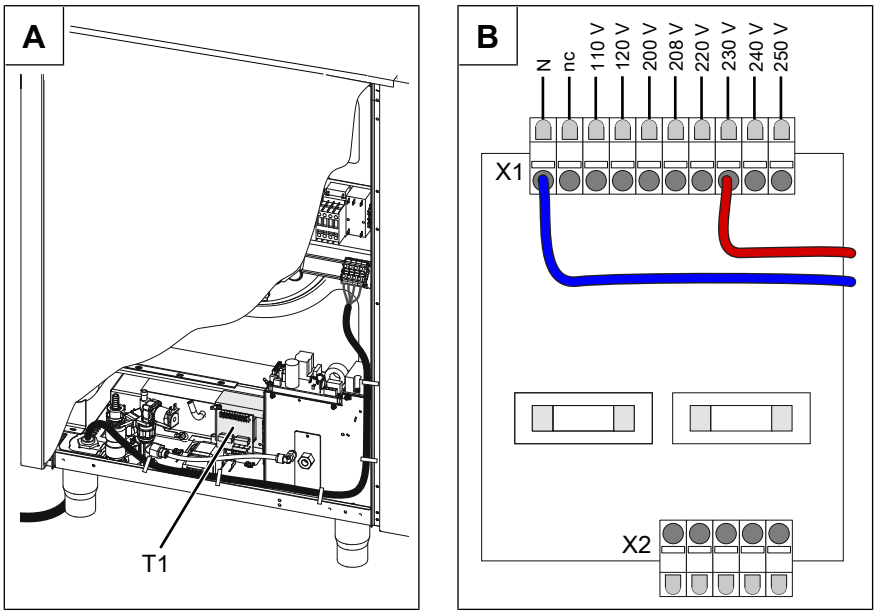

Image: A Transformer T1 location; B Transformer connections for control system

Prerequisite Unit dead

Left side wall removed

1. Use an appropriate meter to measure the supply voltage.
   ↳ The voltage range must match the information on the nameplate.
   ↳ If voltage fluctuations are to be expected, take the maximum expected voltage into account.
2. Check whether the transformer voltage is within the specified range (see "Unit and connection data").
   ↳ If the set voltage differs, reposition the connections for the transformer voltage.
   ↳ Document the new voltage that was set on the sticker.
3. In units with several transformer, repeat the procedure for each transformer.
4. Close the housing (see "Opening and closing the housing").
5. Fill out the Start-up operation report.

6.2.2 Connecting the electrical connection line

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before working on the unit, ensure that the unit is dead.
- Do not operate the unit with the housing open.

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before connecting, ensure that the electrical connection line is dead.
- Ensure that the electrical connection line is undamaged.

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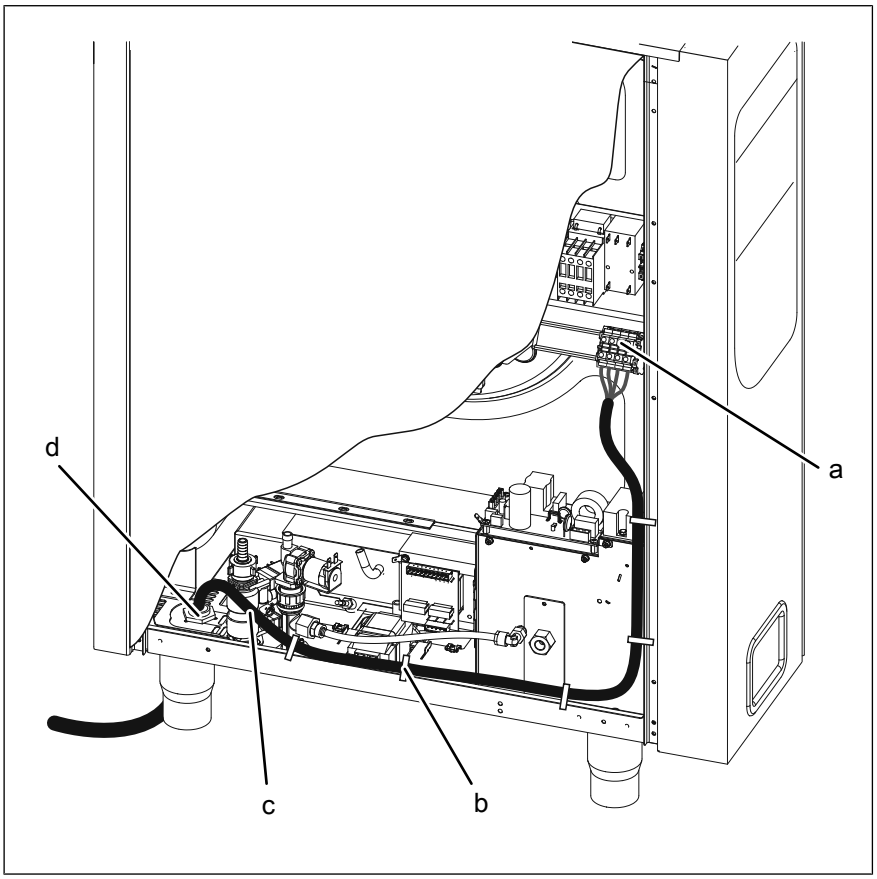

Image: Connecting the electrical connection line

a Connection terminals
b Cable ties
c Electrical connection line
d Threaded cable connection

Prerequisite Unit dead
Electrical connection line dead
Unit adjusted to supply voltage
Side wall open

1. Feed the electrical connection line into the unit through the threaded cable connection.
2. Connect the power connection cable in accordance with the wiring diagram.
3. Secure the electrical connection line with cable ties.
4. Tighten the threaded cable connection securely to provide strain relief.
5. Close the housing (see "Opening and closing the housing").
6. Fill out the Start-up operation report.

6.2.3 Connecting the power optimization system

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before working on the unit, ensure that the unit is dead.
- Do not operate the unit with the housing open.

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before connecting, ensure that the electrical connection line is dead.
- Ensure that the electrical connection line is undamaged.

The unit can be connected to a power optimization system with a potential-free contact. The potential-free contact is used to link the unit to the control.

Prerequisite Unit dead

Electrical connection line dead

Housing opened

1. Pull the electrical connection line into the unit through the cable gland.
2. Route the electrical connection line to the connection terminals.
3. Connect the electrical connection line in accordance with the wiring diagram.
4. Secure the electrical connection line with cable ties.
5. Register the power optimization system in the basic settings of the control (see "Making the basic settings of the control").
6. Fill out the Start-up operation report.

6.2.4 Connecting the potential equalization

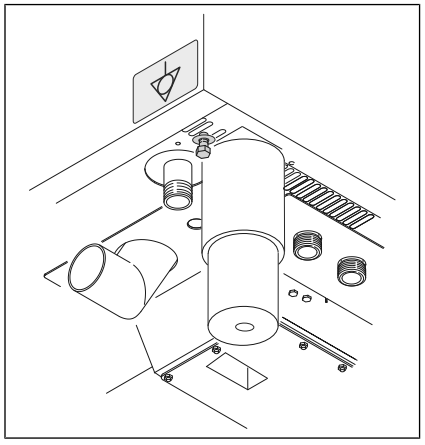

Image: Connecting the potential equalization

1. Route and connect the potential equalization line to the marked connection.
2. Fill out the Start-up operation report.

6.3 Connecting the kitchen guiding system

The units can be connected to a kitchen guiding system using an RJ45 plug.

⚠ DANGER

Risk of personal injury and property damage from electric shock

- Before working on the unit, ensure that the unit is dead.

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- Do not operate the unit with the housing open.

Minimum requirements for the network cable

Type of network	Ethernet
Cable quality	4-pair shrouded patch cable Cat-5 S/FTP
Connection to unit	Shrouded RJ45 connector

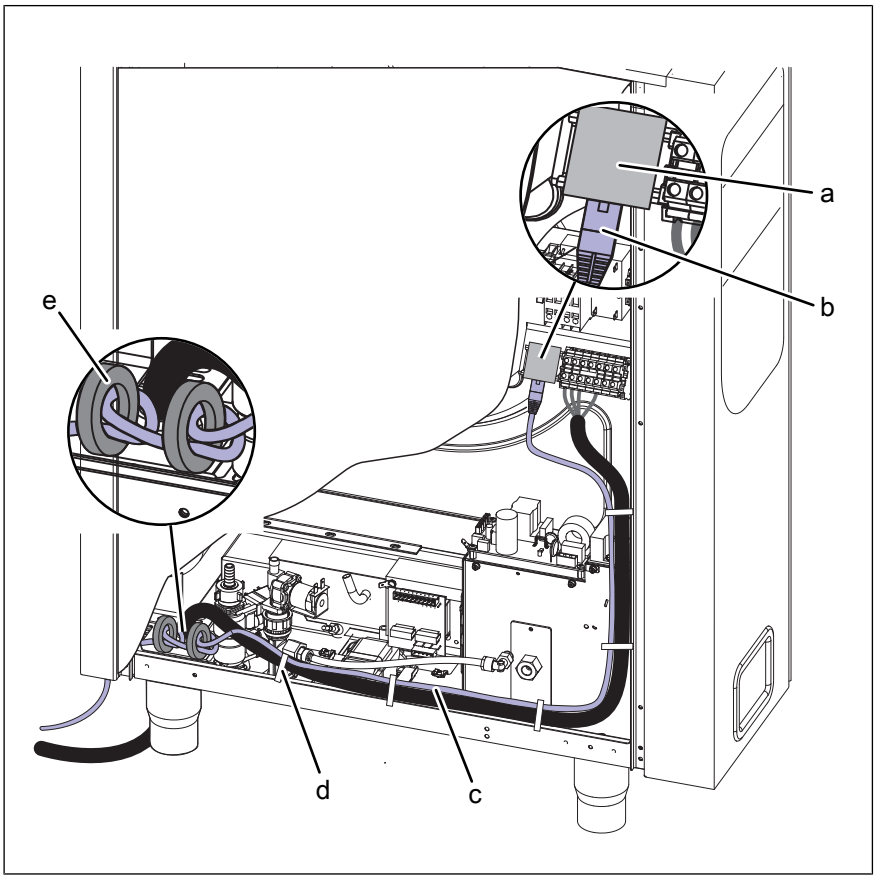

Image: Connecting the kitchen guiding system

a RJ45 socket
b RJ45 connector
c Network cable
d Cable ties
e Ferrite ring

Prerequisite Unit dead

Housing opened

1. Pull the network cable into the unit through the cable gland.
2. Route the network cable through the two ferrite rings, with one winding through each.
3. Connect the network cable to the unit with the RJ45 connector.
4. Register the network in the basic control setting (see "Making the basic control setting").
5. Fill out the Start-up operation report.

6.4 Performing the basic setting of the control

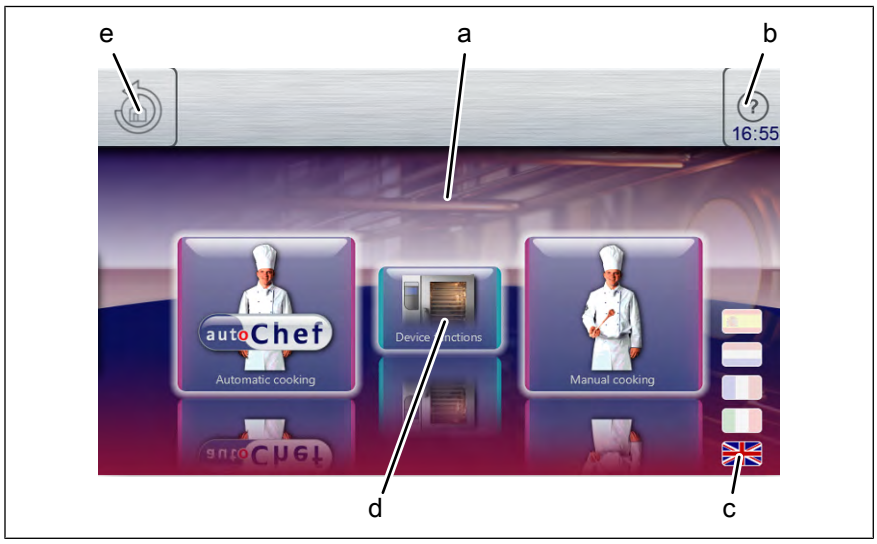

Image: Main menu

a Main menu
b *FlexiHelp* button
c Language selection
d "Unit functions" button
e *Back* button

6.4.1 Changing the basic setting of the control

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

INFORMATION

The basic settings are made in the dialogue.

Advanced settings are made via the parameters for the settings.

Prerequisite Unit is on

The Main menu is displayed

1. Tap the "Unit functions" button.
   ↳ The *Unit functions* menu is displayed.
2. Tap the "Unit settings" field.
   ↳ The *PIN* window opens.
3. Enter the password.
4. Tap the *Confirm* button.
   ↳ The *Unit settings* menu is displayed.
   ↳ The basic settings can be changed (see "Unit and connection data").
5. Fill out the Start-up operation report.

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6.5 Making the water connection

Drinking water installation tasks

Drinking water installation tasks on drinking water lines and the unit may only be performed by a specialist company, which is approved by the drinking water utility company in the particular region. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the drinking water utility company responsible.

Technical qualifications for drinking water installation tasks

Drinking water installation tasks on drinking water lines and the unit may be carried out only by a water specialist provided by the specialist company contracted.

The unit has a connection for permanent installation to the drinking water supply.

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 back-flow preventer.

NOTICE

Risk of property damage from the wrong water quality

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

INFORMATION

Always connect both water connections to the unit.

6.5.1 Connecting the drinking water connection line

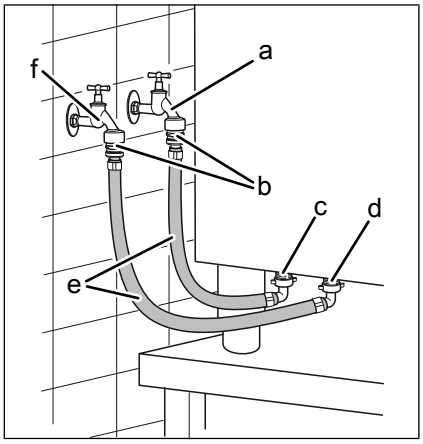

Image: Water connection

a	Softened drinking water	d	Drinking water connection
b	Backflow preventer	e	Tap water connection line
c	Softened drinking water connection	f	Drinking water

Prerequisite Water pressure complies with specifications (see "Unit and connection data")

Backflow preventer installed

Pressure-resistant connection lines suitable for tap water are available

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

6.5.2 Connecting softened drinking water to both connections

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

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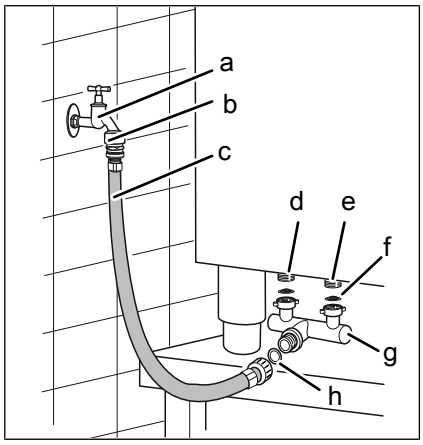

Image: Connecting softened drinking water to both connections

a	Softened drinking water	e	Drinking water connection
b	Backflow preventer	f	Dirt filter
c	Connection line	g	T-piece
d	Softened drinking water connection	h	Seal

Prerequisite Water pressure complies with specifications (see "Unit and connection data")

Backflow preventer installed

Pressure-tight connection line suitable for drinking water is available

1. Connect the connection line to the tap for softened drinking water using a seal.
2. Flush the connection line thoroughly.
3. Insert dirt filters into the water connections on the unit.
4. Connect T-piece to the unit.
5. Connect the connection line for softened drinking water to the T-piece using a seal.
6. Open the drinking water tap and check the threaded fittings for leakage tightness.
7. Fill out the Start-up operation report.

6.6 Making the waste water connection

Waste water installation tasks

Waste water installation tasks on waste water systems and the unit may only be carried out by a specialized company that is responsible for waste water systems. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the operator of the waste water company responsible.

Technical qualifications for waste water installation tasks

Waste water installation tasks on waste water lines and the unit may be carried out only by a waste water specialist provided by the specialist company contracted.

6.6.1 Connecting the waste water line to a permanent connection

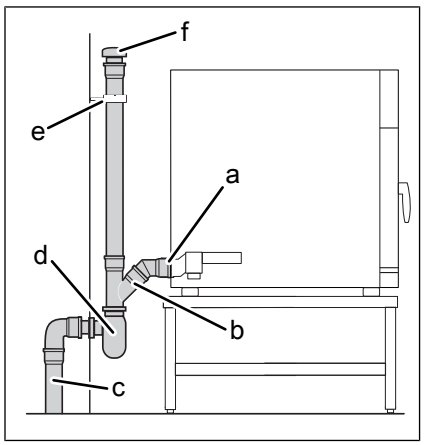

Image: Waste water line to a permanent connection

a	Waste water connection	d	Siphon
b	Waste water line	e	Pipe clamp
c	Waste water mains	f	Vacuum breaker

INFORMATION

If a siphon is installed in the waste water system, a vacuum breaker must be installed in the waste water line.

Prerequisite The waste water line complies with the specifications (see "Unit and connection data")

1. Install waste water line up to connection to the waste water system.
2. Secure waste water line with pipe clamps.
3. Fill the siphon of the unit with drinking water.
4. Fill out the Start-up operation report.

6.7 Making the exhaust air connection

When installing the unit under a ventilation system, observe the regional regulations for air conditioning systems.

NOTICE

Risk of property damage from fouling of the outgoing air ducts

- Not connect the exhaust airline directly to the ventilation system.

NOTICE

Risk of corrosion damage from condensate

- Install the exhaust air line such that condensate cannot collect.

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6.7.1 Connecting the exhaust air line

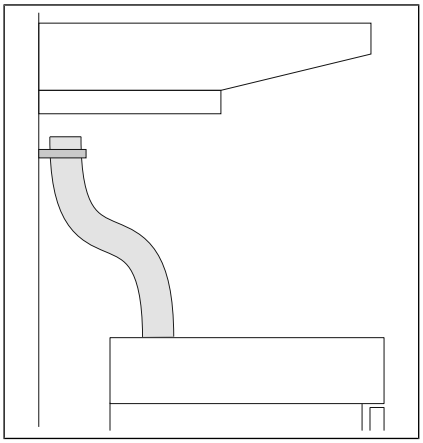

Image: Connecting the exhaust air line

Prerequisite The exhaust air line complies with the specifications (see "Unit and connection data")

1. Connect the exhaust air line to the steam outlet nozzle.
2. Route exhaust air line to the ventilation system with a 3° rise.
3. Fasten the end of the exhaust air line 50 mm (1,97 in) — 200 mm (7,87 in) underneath the ventilation system.
4. Fill out the Start-up operation report.

7 Testing the function

⚠ DANGER

Risk of personal injury and property damage from unsuccessful operational check

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

Prerequisite Electrical connection made

Water connection made

Waste water connection made

Unit cleaned

7.1 Checking the controls

1. Switch on the unit and start any cooking program (see operating instructions).
   ↳ Set the cooking chamber temperature to a higher temperature than the current cooking chamber 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 Start-up operation report.

7.2 Checking the inspection of the cooking chamber door

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

7.3 Heating and rinsing the unit

1. Switch on the unit.
2. Tap the "Manual cooking" button.
   ↳ The Manual cooking menu is displayed.

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3. Run the unit in the Steaming mode for 15 minutes at 100 °C (212 °F).
4. Rinse the cooking chamber thoroughly with clear water.
5. Run the unit in the hot air mode for 5 minutes at 180 °C (356 °F).
6. Open the cooking chamber door and leave it ajar until the unit is used again.
7. Fill out the start-up operation report.

8 Putting the unit into service

INFORMATION

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

Prerequisite

Electrical connection made
Water connection made
Wastewater connection made
Exhaust air connection made (if required by the customer)
Function checked successfully
Housing closed

1. Instruct operator.
2. Fill out the Start-up operation report.

8.1 Nameplate

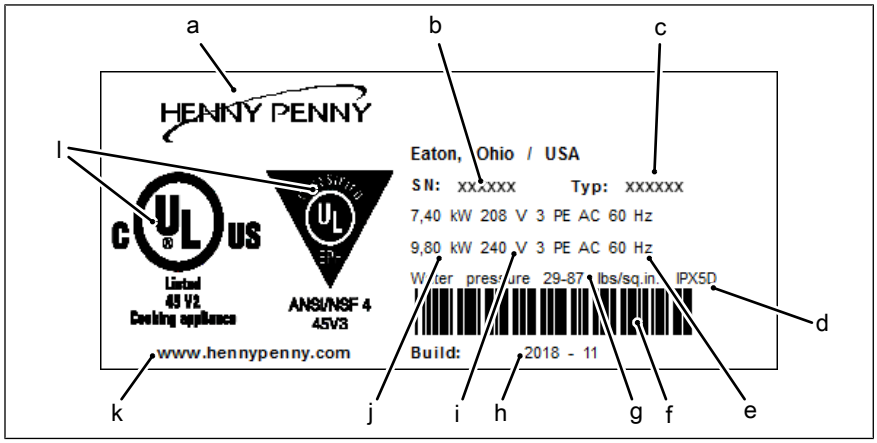

Image: Nameplate information

a	Manufacturer	g	Connection pressure for water
b	Serial number	h	Year of manufacture
c	Type number	i	Type of connection
d	Protection class	j	Electrical connected load
e	Frequency	k	Manufacturer's web address
f	Barcode	l	Certificate

8.2 Filling out the Start-up operation report

General information	Yes	No
Information from the nameplate entered? SN: _____ Typ: _____ E: _____ Bez: _____ Item-Nr.: _____ (if listed)	☐	☐

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General information	Yes	No
Obvious damage to the unit? What and where?: _____	☐	☐
Unit levelled?	☐	☐

General information		Yes	No
Unit fastened to floor?		☐	☐
secured against tipping ☐ Screwed to floor ☐ Glued to floor	**secured against shifting** ☐ Screwed to floor ☐ Glued to floor		

Electrical connection		Yes	No
Electrical connection made properly?		☐	☐
☐ Potential equalization	☐ Power optimization system		
☐ Potential-free contact	☐ _____		
Electrical connections made properly?		☐	☐
Fault current device connected directly before this unit?		☐	☐
Fault current device connected before this and other units?		☐	☐
Supply voltage measured? Supply voltage: _____ (V)		☐	☐
Set transformer voltage T1: blue 0 V | red _____ V			

Kitchen guiding system	Yes	No
Kitchen guiding system connected properly?	☐	☐

Basic setting of the control		Yes	No
Temperature unit set?		☐	☐
☐ °C	☐ °F		
Date and time set?		☐	☐
Software version identified?		☐	☐
Version: _____			
Altitude set?		☐	☐
☐ 0 — 999 m (3277 ft)	☐ 1000 m (3280 ft) — 1999 m (6557 ft)		
☐ 2000 m (6560 ft) — 2499 m (8197 ft)	☐ 2500 m (8200 ft) or higher		
80% power set?		☐	☐
☐ 100 %	☐ 80 %		
Supply voltage set?		☐	☐
Voltage: _____ V			

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Basic setting of the control		Yes	No
Audible signal volume set?		☐	☐
☐ Low	☐ High		
Signal tone selected?		☐	☐
Volume unit set?		☐	☐
☐ ml	☐ fl.oz. (Imperial)		
☐ fl.oz. (U.S.)			
Power optimization system set?		☐	☐
☐ On	☐ Off		
Water filter maintenance set?		☐	☐
☐ No maintenance message	☐ Maintenance message at: _____ l (gal)		
Network configuration set?		☐	☐
☐ DHCP	IP address: _____		
Subnet mask: _____	Gateway: _____		
Kitchen guiding system set?		☐	☐
☐ Active	☐ Disabled		
☐ Ethernet TCP port: _____ Unit address: _____	☐ Serial Unit address: _____		

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

Waste water connection		Yes	No
Waste water connection made in a technically correct manner?		☐	☐
☐ Siphon in the building	☐ Vacuum breaker		
☐ Funnel drain	☐ Floor drainage channel		
Connection size of waste water line: _____ mm (in)			

Exhaust air connection	Yes	No
Installation under ventilation system?	☐	☐
Connected to outgoing air duct? Connection size of exhaust air line: _____ mm (in) Length of exhaust air line: _____ mm (in)	☐	☐

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Function check	Yes	No
Controls functioning?	☐	☐
Monitoring of cooking chamber door functioning?	☐	☐
Unit heated and rinsed?	☐	☐

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

Electrical installation was made by:			
Company	Installation fitter	Place, date	Signature

The connection to a kitchen guiding system was made by:			
Company	Installation fitter	Place, date	Signature

Water installation was made by:			
Company	Installation fitter	Place, date	Signature

Wastewater installation was made by:			
Company	Installation fitter	Place, date	Signature

Exhaust air connection was made by:			
Company	Installation fitter	Place, date	Signature

Function check was made by:			
Company	Installation fitter	Place, date	Signature

Operator was trained by:

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Company	Installation fitter	Place, date	Signature

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