



Read the operating instructions prior to commissioning

FlexFusion® GAS GOLD COMBI



Installation manual

Model

- FGG-615
- FGG-621
- FGG-115
- FGG-121
- FGG-215
- FGG-221



FM08-455-F • 4/27/2021

FM08-455-F

en-US



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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.

1.2 Personnel qualifications

Explanation of qualification

Skilled personnel	<ul style="list-style-type: none"> • 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.
Expert	<ul style="list-style-type: none"> • An expert is a person, who has sufficient professional knowledge on the basis of his training and experience, and who is sufficiently familiar with the relevant regulations, guidelines and rules covering the particular technology, that he can assess the safe operating condition of the system. • The person must be named in writing by the specialist company concerned, and the remit of his authorized tasks must also be stated.

Type of activity	Qualification
Electrical connection	<ul style="list-style-type: none"> • Electrician • Specialized training • Employee of the responsible technical company
Gas connection	<ul style="list-style-type: none"> • Gas expert • Specialized training • Employee, who is named in writing, of the specialist company concerned
Water connection	<ul style="list-style-type: none"> • Water specialist • Specialized training • Employee of the responsible technical company
Waste water connection	<ul style="list-style-type: none"> • 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.
- When setting up the unit in close proximity to heat-sensitive substances or substances that pose a risk of fire, observe fire prevention regulations.
- Ceilings above the unit must be noncombustible.

Risk of fire from objects

- Do not obstruct the exhaust gas duct.

Risk of fire from combustion gases and hot surfaces

- Maintain an adequate distance from grease filters on ventilation systems.

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.

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.

Gas connection Risk of explosion and fire from improper connection

- Observe applicable regional regulations of the gas utility.
- Ensure that only a tradesman licensed by the gas supplier connects the unit to the gas supply.
- Prior to working on the gas system, switch off the unit, close the gas supply from the gas system and secure it against being reopened. When bleeding air or degassing, ensure that the air and gas are discharged to the outside in a technically correct manner and without creating a risk.
- Observe the information on the nameplate and *Gas type* additional shield.

- Check for leaks.
- When working on the gas system and units in buildings, ensure that a hazardous gas-air mixture cannot form in the rooms.

Risk of poisoning from exhaust gases

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

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.

Additional connection work Risk of physical damage and personal injury from improper connection

- Prior to working on the unit, switch off the unit, disconnect the unit from the mains and prevent power from being switched on again. Check to ensure the system is dead.
- Prior to working on the unit, switch off the unit, close the gas supply and secure it against being reopened.
- Route connection lines such that they cannot be damaged from heat.

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

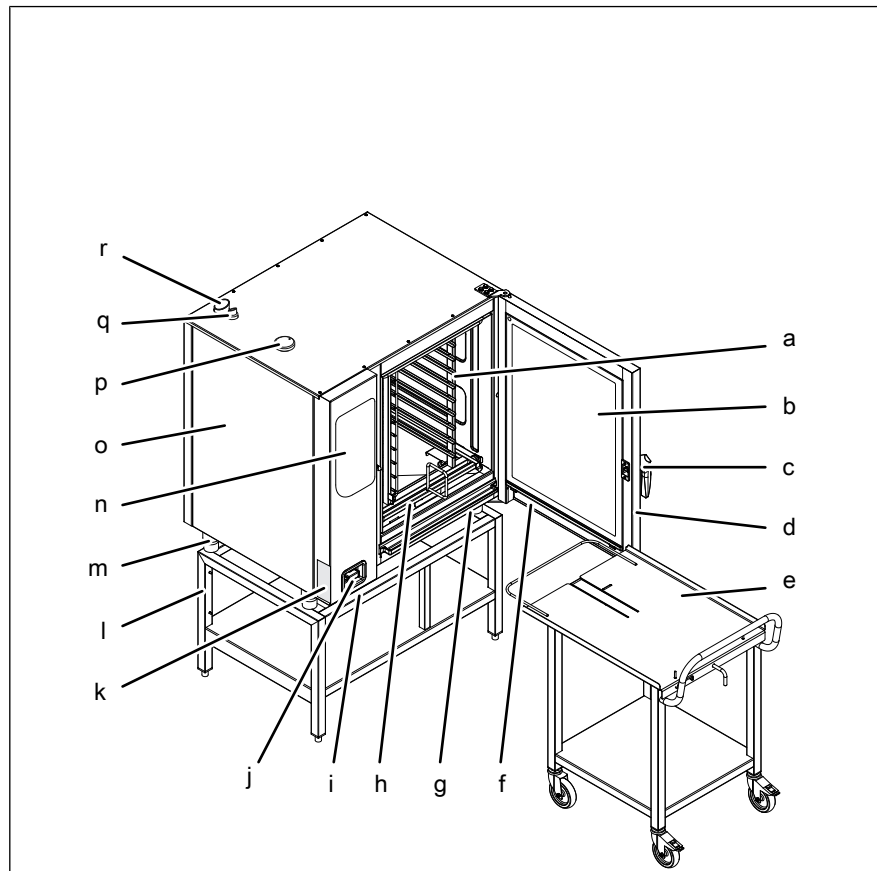


Image: Unit with tray rack trolley

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

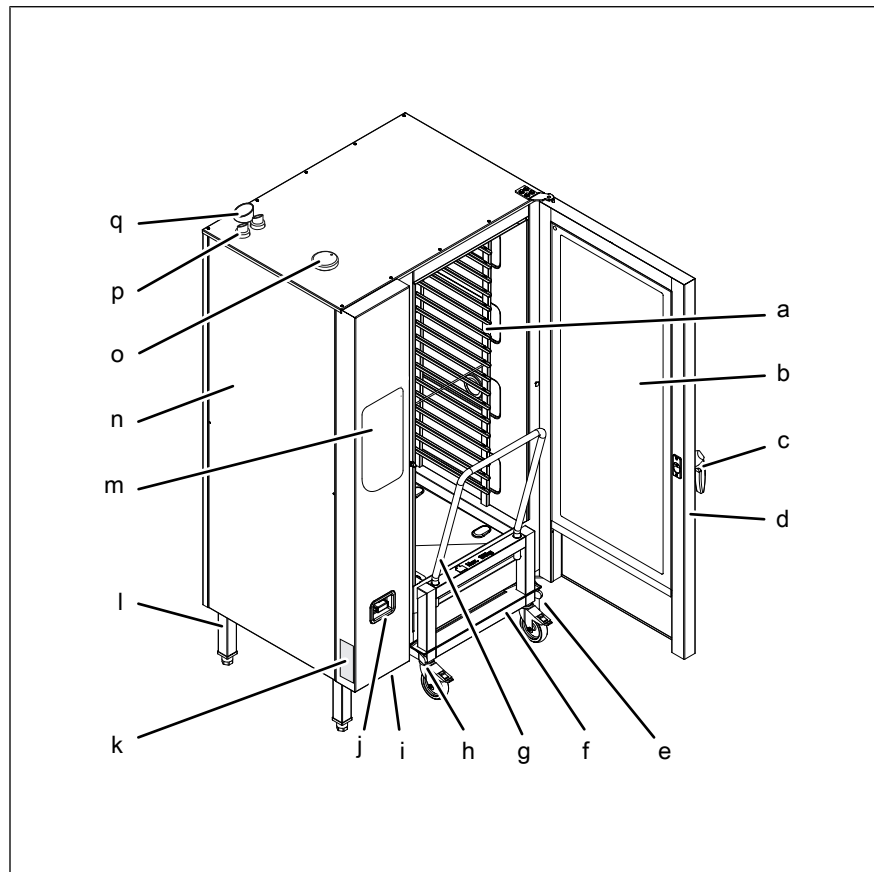


Image: Unit with tray trolley

- | | | | |
|---|----------------------|---|----------------------|
| 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 | Waste gas connection |
| h | Guide rail (left) | q | Steam outlet nozzle |
| i | USB port (covered) | | |

3.2 Planning drawing

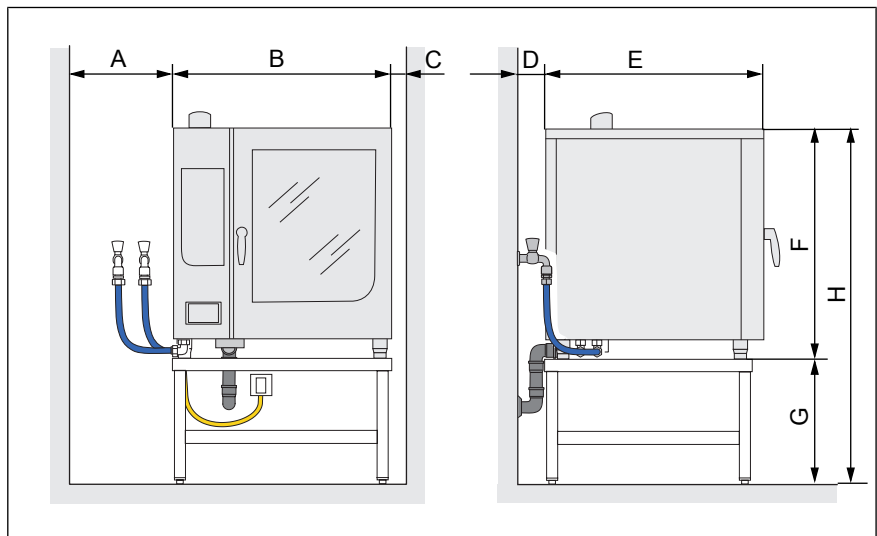


Image: Sizes 6XX and 1XX

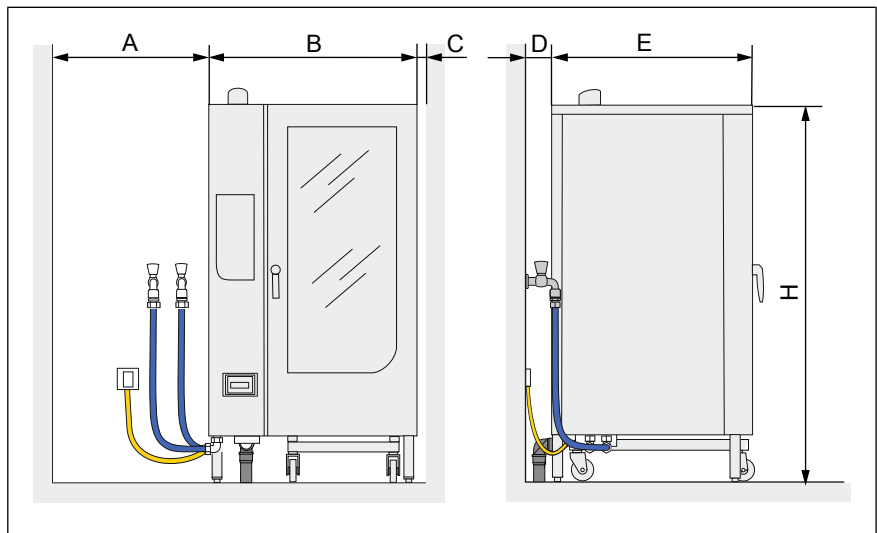


Image: Size 2XX

Unit size	615, 621	115, 121	215, 221
A	50 (1,97)	50 (1,97)	50 (1,97)
B	1020 (40,16)	1020 (40,16)	1075 (42,32)
C	50 (1,97)	50 (1,97)	50 (1,97)
D	50 (1,97)	50 (1,97)	50 (1,97)
E	799 (31,46)	799 (31,46)	813 (32,01)
F	790 (31,1)	1060 (41,73)	---
G	850 (33,46)	580 (22,83)	---
H	1640 (64,57)	1640 (64,57)	1960 (77,17)
All dimensions in mm (in)			

Description of the unit

3.3 Unit and connection data

Unit size	615	621	115	121	215	221
Dimensions						
Unit Length x Width x Height (mm (in))	1020 (40,16) x 799 (31,46) x 790 (31,1)		1020 (40,16) 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 unit on casters						
Unit Length x Width x Height (mm (in))					1246 (49,06) x 935 (36,81) x 1960 (77,17)	1366 (53,78) x 1126 (44,33) x 1960 (77,17)
Weight						
Unit ≈ (kg (lb))	127 (280)	132 (291,1)	155 (341,8)	165 (363,8)	307 (676,9)	379 (835,7)
Weight unit on casters						
Unit ≈ (kg (lb))					327 (721)	411 (906,3)
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 (m ³ /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 loss (W)	1872	3762	2862	5490	5706	10962
Sensible heat loss (W)	1560	3135	2385	4575	4755	9135
With condensation hood						
Steam output (g/h (oz/h))	830 (29,28)	1660 (58,55)	1260 (44,44)	2420 (85,36)	---	
Steam output (m ³ /h (cuft/h))	1,4 (49,4)	2,8 (98,8)	2,1 (74,1)	4,1 (144,7)	---	
Latent heat loss (W)	562	1129	859	1647	---	
Sensible heat loss (W)	1560	3135	2385	4575	---	
Operating environment						
Temperature (°C (°F))	5 (41) — 40 (104)					
Relative humidity (%) non-condensing	95					
Cooking chamber light						
Illuminant	Halogen oven lamp 20 W 12 V G4					
Energy efficiency class	C					
Electrical connection						
Protective system	IPX5					
Type of connection	1NPE / AC 50/60 Hz					

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Unit size	615	621	115	121	215	221
Voltage (V)	100					
Connected load (kW)	0.6				1.0	
Recommended fuse (A)	16					
Voltage (V)	120					
Connected load (kW)	0.6				1.0	
Recommended fuse (A)	16					
Type of connection	1NPE / AC 50/60 Hz, 2PE / AC 50/60 Hz					
Voltage (V)	220 — 240					
Connected load (kW)	0.6				1.0	
Recommended fuse (A)	16					
Softened drinking water connection						
Water type	Softened drinking water, cold					
Residual hardness CaCO ₃ (mmol/l (ppm))	< 1 (100 ppm)					
Chloride Cl (mg/l)	< 100					
Iron Fe (mg/l)	< 0.2					
Connection pressure (kPa (psi))	200 (29) — 600 (87)					
Connection size (")	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 size (")	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)					
Dimension (mm (in))	50 (1,97)					
Maximum length (m (ft))	1 (3,3) with downward slope of at least 5% or 3°					
Temperature resistance (°C (°F))	95 (203)					

Description of the unit

Unit size	615	621	115	121	215	221
Maximum flow rate (l/min (gal/min))	10 (2,64)					
Exhaust air connection						
Dimension (mm (in))	53 (2,09)				73 (2,87)	
Maximum length (m (ft))	2,5 (8,2)					
Temperature resistance (°C (°F))	180 (356)					
Gas connection						
Rated heat input (kW)	11	17	18	26	36	52
Gas type	The gas type, for which the unit is set, is indicated on the gas type supplemental label.					
Connection dimension in accordance with EN10226-1 (")	R 3/4					
Dimension (only US version) (")	3/4 NPT					
Connection pressure (hPa (lbf/sqft)) Natural gas 2H, 2E, 2L, 2LL *	20 (41,8)					
Connection pressure (hPa (lbf/sqft)) Liquefied gas 3B/P, 3P *	50 (104,4)					
Natural gas E/H, G20 (m³/h (cuft/h)) **	1,14 (40,2)	1,76 (62,1)	1,87 (66)	2,7 (95,3)	3,74 (132)	5,4 (190,6)
Natural gas LL/L, G25 (m³/h (cuft/h)) **	1,33 (46,9)	2,05 (72,3)	2,17 (76,6)	3,14 (110,8)	4,35 (153,5)	6,28 (221,6)
Natural gas K, G25.3 (m³/h (cuft/h)) **	1,33 (46,9)	2,05 (72,3)	2,17 (76,6)	3,14 (110,8)	4,35 (153,5)	6,28 (221,6)
Natural gas 13A, G21 (kcal/h)	9500	14600	15500	22400	31000	44700
Natural gas Gas A(m³/h (cuft/h)) **	1,14 (40,2)	1,76 (62,1)	1,87 (66)	2,7 (95,3)	3,74 (132)	5,4 (190,6)
Natural gas G20, NG174, NGN(m³/h (cuft/h)) **	1,14 (40,2)	1,76 (62,1)	1,87 (66)	2,7 (95,3)	3,74 (132)	5,4 (190,6)
Liquefied gas B, G30 (kg/h (lb/h))	0,87 (1,92)	1,34 (2,95)	1,42 (3,13)	2,05 (4,52)	2,84 (6,26)	4,1 (9,04)
Liquefied gas P G31 (kg/h (lb/h))	0,85 (1,87)	1,32 (2,91)	1,4 (3,09)	2,02 (4,45)	2,8 (6,17)	4,04 (8,91)
LP gas B/P G30/G31 (kg/h (lb/h))	0,87 (1,92)	1,34 (2,95)	1,42 (3,13)	2,05 (4,52)	2,84 (6,26)	4,1 (9,04)
LP gas B/P gas E (kg/h (lb/h))	0,87 (1,92)	1,34 (2,95)	1,42 (3,13)	2,05 (4,52)	2,84 (6,26)	4,1 (9,04)
LP gas B/P G30/G31, FL50, BP29, PX275 (kg/h (lb/h))	0,87 (1,92)	1,34 (2,95)	1,42 (3,13)	2,05 (4,52)	2,84 (6,26)	4,1 (9,04)
Combustion air (m³/h (cuft/h)) **	15 (529,3)	23 (811,6)	23 (811,6)	33 (1164,5)	45 (1587,9)	65 (2293,7)
Supply air and exhaust gas routing						
required delivery pressure B _{13BS} (Pa)	0 — 5					

Unit size	615	621	115	121	215	221
Exhaust gas temperature B _{13BS} (°C (°F))	170 (338)	230 (446)	195 (383)	240 (464)	205 (401)	250 (482)
Exhaust gas mass flow B _{13BS} (kg/h (lb/h))	30 (66,15)	47 (103,64)	49 (108,05)	71 (156,56)	99 (218,3)	142 (313,11)
Dimension (mm (in))	103 (4,06) x 1 (0,04)	103 (4,06) x 1 (0,04)	103 (4,06) x 1 (0,04)	103 (4,06) x 1 (0,04)	155 (6,1) x 1 (0,04)	155 (6,1) x 1 (0,04)
* Information is country-specific and applies in Germany; for further information, see "Checking the connection pressure"						
** Data valid at 15 °C (59 °F) and 1013,25 hPa (2115,34 lbf/sqft)						

Fastening to the floor

Absolutely essential for the following unit types	
FGG615	Only in conjunction with base cabinet and underframe
FGG621	
FGG115	
FGG121	
FGG121-621	Only in conjunction with stacking kit
FGG115-621	
FGG121-615	
FGG115-615	

Transformer voltage

Type of connection	1NPE / AC 50/60 Hz			
Voltage range (V)	100 — 120			
Transformer	T1		T2 / T3	
Wire identification or color	blue	red	blue	red
Voltage measured (V)	Voltage at transformer (V)			
90 — 100	0	110	-20	120
101 — 110	0	110	0	120
111 — 120	0	120	0	120

Gas connection pressure

Gas type	Connection pressure (hPa (lbf/sqft))	Connection pressure range (hPa (lbf/sqft))
Germany:		
Natural gas 2H, 2E, 2L	20 (41,8)	17 (35,5) — 25 (52,2)
Natural gas 2LL	20 (41,8)	18 (37,6) — 25 (52,2)
Liquefied gas (LPG) 3B/P, 3P	50 (104,4)	42,5 (88,7) — 57,5 (120)
Europe:		
Natural gas 2E, 2H	20 (41,8)	17 (35,5) — 25 (52,2)
Natural gas 2L	25 (52,2)	20 (41,8) — 30 (62,6)
Natural gas 2K	25 (52,2)	20 (41,8) — 30 (62,6)

Description of the unit

Gas type	Connection pressure (hPa (lbf/sqft))	Connection pressure range (hPa (lbf/sqft))
Liquefied gas (LPG) 3B/P, 3P	50 (104,4)	42,5 (88,7) — 57,5 (120)
Liquefied gas 3B/P	29 (60,5)	25 (52,2) — 35 (73,1)
Liquefied gas 3P	30 (62,6)	25 (52,2) — 35 (73,1)
Liquefied gas 3+	28 (58,5) — 30 (62,6) / 37 (77,2)	20 (41,8) — 35 (73,1) / 25 (52,2) — 45 (93,9)
Liquefied gas 3P	37 (77,2)	25 (52,2) — 45 (93,9)
Liquefied gas (LPG) 3B	29 (60,5)	20 (41,8) — 35 (73,1)
Asia:		
Natural gas 13A	20 (41,8)	10 (20,9) — 25 (52,2)
LP gas B/P	28 (58,5)	23 (48) — 33 (68,9)
America:		
Natural gas A	20 (41,8)	17 (35,5) — 25 (52,2)
LP gas B/P gas E	30 (62,6)	25 (52,2) — 35 (73,1)

Gas blower speed

Unit size	Gas blower speed (rpm)	
	High output (High)	Low output (Low)
615	5050 *	4800
621	6700	4800
115	5050	2800
121	6700	2800
215	5050	2800
221	6700	2800

* In deviation from the table, for model 615 the gas blower speed at the described setting and upon verification of the rated heat input is **5500 rpm**.

Exhaust gas values

Gas type	Output	Unit size	CO ₂ (vol. %) *		p _{offset} (hPa (lbf/sqft)) **		CO (ppm) ***	
			Range	optimal	Range	optimal	Range	optimal
Natural gas	High	all sizes	8.6 — 9.6	9.2	---	---	0 — 1000	< 100
	Low	615, 621	0.5 — 1.2	0.6	-0,8 (1,7) — 0	-0,55 (1,1)		
	Low	115, 121, 215, 221	0.5 — 1.2	0.6	-0,4 (0,8) — 0	-0,15 (0,3)		
Liquefied gas, propane	High	all sizes	10.0 — 10.6	10.3	---	---	0 — 1000	< 100
	Low	615, 621	0.5 — 1.2	1.0	-0,8 (1,7) — 0	-0,55 (1,1)		
	Low	115, 121, 215, 221	0.5 — 1.2	1.0	-0,4 (0,8) — 0	-0,15 (0,3)		
Liquefied gas, butane	High	all sizes	11.5 — 12.5	11.8	---	---	0 — 1000	< 100
	Low	615, 621	0.5 — 1.2	1.0	-0,8 (1,7) — 0	-0,55 (1,1)		
	Low	115, 121, 215, 221	0.5 — 1.2	1.0	-0,4 (0,8) — 0	-0,15 (0,3)		

* at partial load (Low), 0.5 — 1.2 lower than at full load (High)

** Adjustment aid, offset pressure applies only at low output (Low)

*** in undiluted exhaust gas

Gas orifice size, natural gas

	E/H	LL/L	L	K	13A	Gas A	NGN, NG174
Test gas	G20	G25	G25	G25.3	G21	G20	G20,
Wobbe index (kWh/m ³)*	15.0	12.4	12.4	12.5	16.1	15.0	15.0
Wobbe index range (kWh/m ³)*	12.0 — 16.1	10.1 — 13.1	11.5 — 13.1	12.7 — 13.3	14.5 — 16.3	12.0 — 16.1	12.0 — 16.1
Connection pressure (hPa (lbf/sqft))	20 (41,8)	20 (41,8)	25 (52,2)	25 (52,2)	20 (41,8)	20 (41,8)	20 (41,8)
Primary air gap (mm (in))	30 (1,18) — 50 (1,97)						
CO content (ppm) ***	< 1000 (optimum < 100)						
Unit size	Orifice size (1/100 (mm (in)))						
615	650 (25,59)	720 (28,35)	720 (28,35)	720 (28,35)	N/A**	680 (26,77)	650 (25,59)
621	590 (23,23)	670 (26,38)	670 (26,38)	670 (26,38)	N/A**	590 (23,23)	590 (23,23)
115	565 (22,24)	650 (25,59)	650 (25,59)	650 (25,59)	N/A**	590 (23,23)	565 (22,24)
121	565 (22,24)	640 (25,2)	640 (25,2)	640 (25,2)	N/A**	580 (22,83)	565 (22,24)

Description of the unit

	E/H	LL/L	L	K	13A	Gas A	NGN, NG174
215	565 (22,24)	650 (25,59)	650 (25,59)	650 (25,59)	N/A**	590 (23,23)	565 (22,24)
221	565 (22,24)	640 (25,2)	640 (25,2)	640 (25,2)	N/A**	580 (22,83)	565 (22,24)

* upper Wobbe index, information applies at 0 °C (32 °F) and 1013,25 hPa (2115,34 lbf/sqft)
 ** For information on manually setting the rated heat input, (see "Adjusting the basic gas setting").
 *** in undiluted exhaust gas

Gas orifice size, liquefied gas

	B/P	B/P	P	LP gas B/P	LP gas B/P gas E	LP gas B/P FL50, BP29, PX275
Test gas	G30/G31	G30/G31	G31	G30/G31	G30/G31	G30/G31,
Wobbe index (kWh/ m ³)*	25.7 / 22.5	25.7 / 22.5	22.5	23.5	25.7 / 22.5	25.7 / 22.5
Wobbe index range (kWh/m ³)*	21.4 — 25.7	21.4 — 25.7	21.4 — 22.5	21.4 — 25.7	21.4 — 25.7	21.4 — 25.7
Connection pressure (hPa (lbf/sqft))	50 (104,4)	30 (62,6)	37 (77,2)	28 (58,5)	30 (62,6)	50 (104,4)
Primary air gap (mm (in))	30 (1,18) — 50 (1,97)					
CO content (ppm)**	< 1000 (optimum < 100)					
Unit size	Orifice size (1/100 (mm (in)))					
615	470 (18,5)	470 (18,5)	470 (18,5)	470 (18,5)	470 (18,5)	470 (18,5)
621	430 (16,93)	430 (16,93)	430 (16,93)	430 (16,93)	430 (16,93)	430 (16,93)
115	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)
121	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)
215	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)	420 (16,54)
221	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)	400 (15,75)

* upper Wobbe index, information applies at 0 °C (32 °F) and 1013,25 hPa (2115,34 lbf/sqft)
 ** in undiluted exhaust gas

Status messages

Burner operation	
Display	Meaning
<div style="display: flex; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">HI</div> <div style="border: 1px solid black; padding: 2px 5px;">CO2</div> <div style="border: 1px solid black; padding: 2px 5px;">G1F1</div> </div>	HI = High output CO2 = CO ₂ measurement G1 = Gas supply open (gas solenoid valve open) F1 = Flame present (burner on)

Burner operation	
Display	Meaning
85°C CO2 2800	85°C = Current cooking chamber temperature
	CO2 = CO ₂ measurement
	2800 = Gas blower speed (rpm)

Burner status messages	
Display	Meaning
HI CO2 G0F0	G0 = Gas supply closed (gas solenoid valve closed)
	F0 = No flame (burner off)
HI CO2 G1F0	G1 = Gas supply open (gas solenoid valve open)
	F0 = No flame (burner off)
HI CO2 G1F1	G1 = Gas supply open (gas solenoid valve open)
	F1 = Flame present (burner on)

Burner error messages			
Display	Meaning	Possible cause	Remedy
Err CO2 71	Err = Error	Gas valve closed. Air in the gas line.	Open the gas valve and repeat ignition.
	CO2 = CO ₂ measurement		
	71 = No gas		
Err CO2 72	Err = Error	Power supply interrupted. Error in the control electronics.	Contact customer service
	CO2 = CO ₂ measurement		
	72 = Blower not running		
Err CO2 73	Err = Error	Wrong gas quality	Contact customer service
	CO2 = CO ₂ measurement		
	73 = General gas error		

Basic setting of the control

Basic setting	Parameters	Standard value	Range of adjustment	Explanation
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	
Temperature unit setting	1	°C	°C	Celsius (°C)
			°F	Fahrenheit (°F)

Description of the unit

Basic setting	Parameter s	Standard value	Range of adjustment	Explanation
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

Basic setting of control (Advanced)

Basic setting	Parameter s	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
Duration of audible signal	6	20	0 = Signal off 1 — 180 s	Duration of the audible signal
Gas type setting	41		0 = Natural gas / liquefied gas 1 = City gas	DANGER! Converting to city gas has an effect on the nozzle fitting and fan speed, and this requires a new gas acceptance test for the unit by the relevant approval authority for gas appliances.
Steam elimination	48	1	0 = Low	Sets the steam elimination level
			1 = Normal	
			2 = High	

4 Transporting the unit

⚠ 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 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

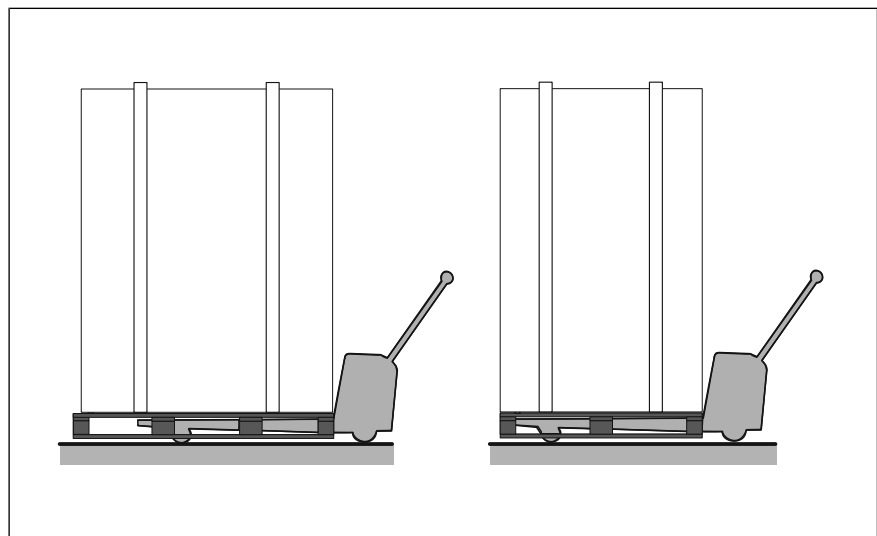


Image: Lengthwise and crosswise transport on pallet

→ 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.

Transporting the unit

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.

⚠ 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 Minimum clearances

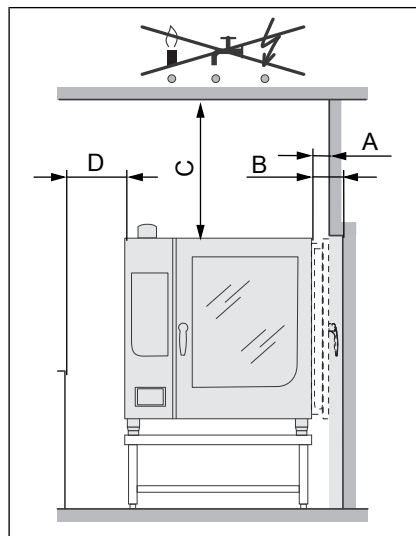


Image: Minimum clearances to walls, ceiling or units

A	B	C *	D **
50 (1,97)	100 (3,94)	500 (19,69)	50 (1,97)
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.
- There must be no water, gas or electric lines in the ceiling above the unit.

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
Locking brake fixed

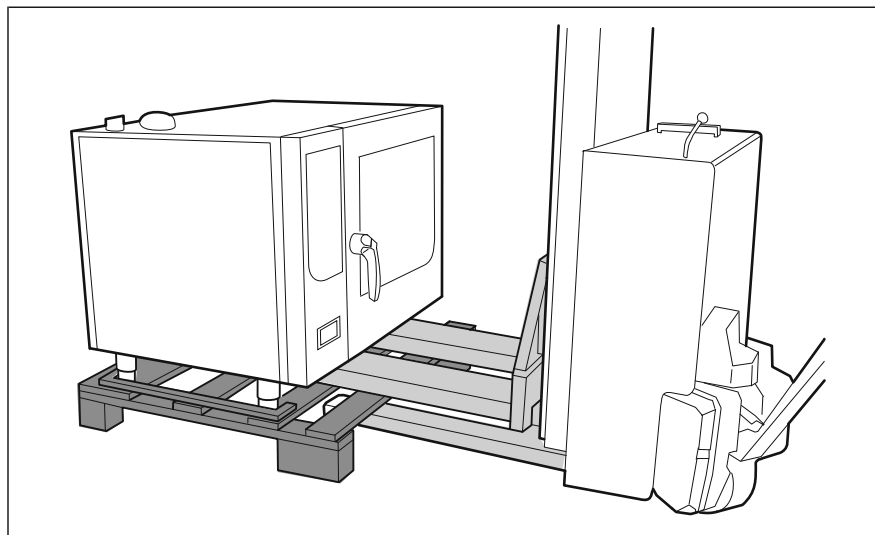


Image: Lifting the unit off the pallet

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

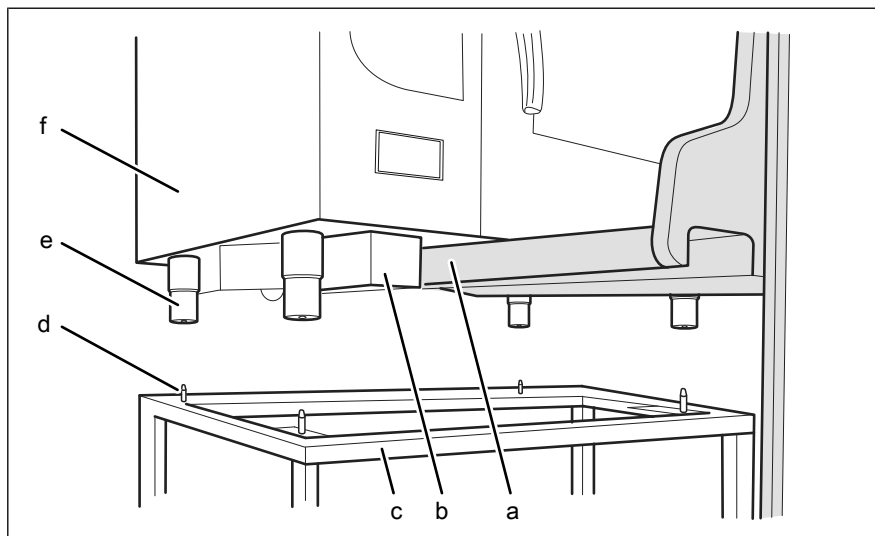


Image: Setting up the unit on a base frame

- | | |
|--------------------------|-------------|
| 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).

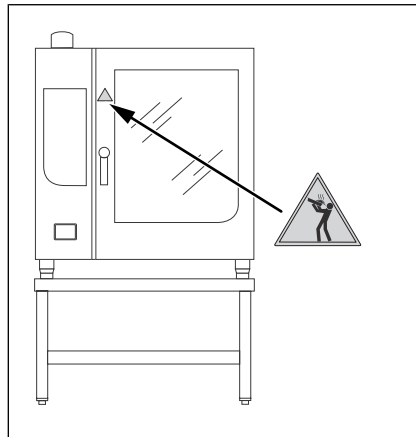


Image: Attach warning sign regarding the shelf height

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.

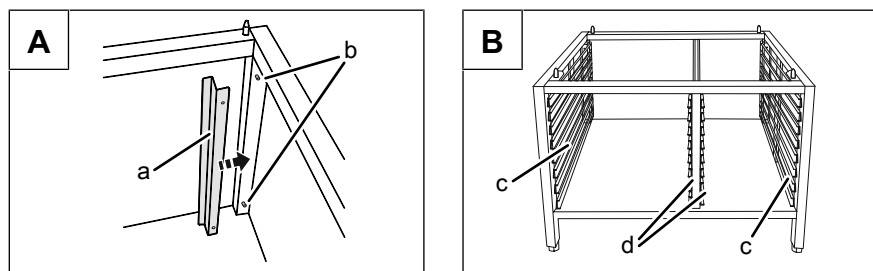


Image: A Stop profile, B Hang-in frame

- 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

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).

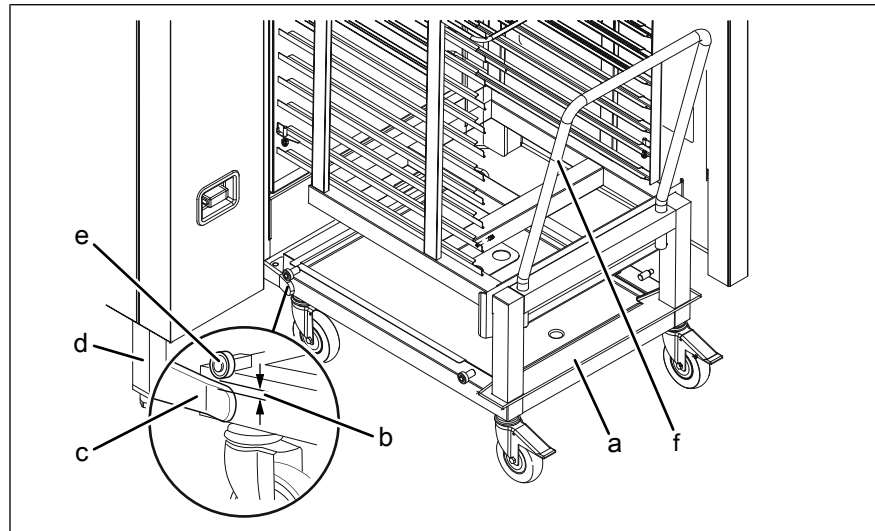


Image: Aligning tray trolley with insertion system

- | | | | |
|---|--------------|---|----------------|
| 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.

Depending on the size, it is essential that certain combi-steamer types or combi-steamers 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").

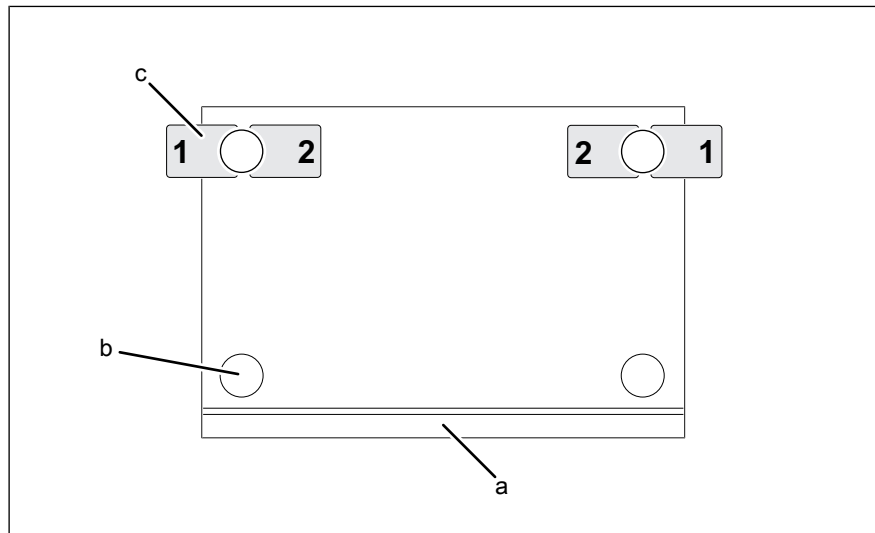


Image: Arrangement of the floor plates (view from above)

- 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.

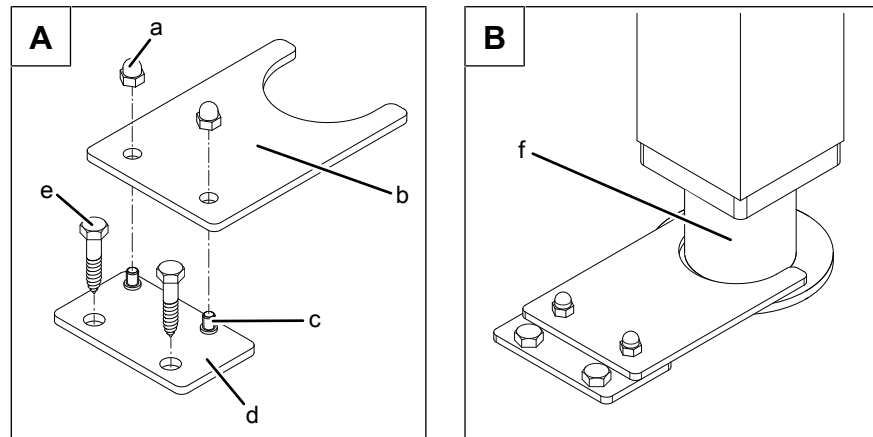


Image: A: Position of floor plate; B: floor plate bolted to the floor

- | | | | |
|---|---------------|---|-------------|
| 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.

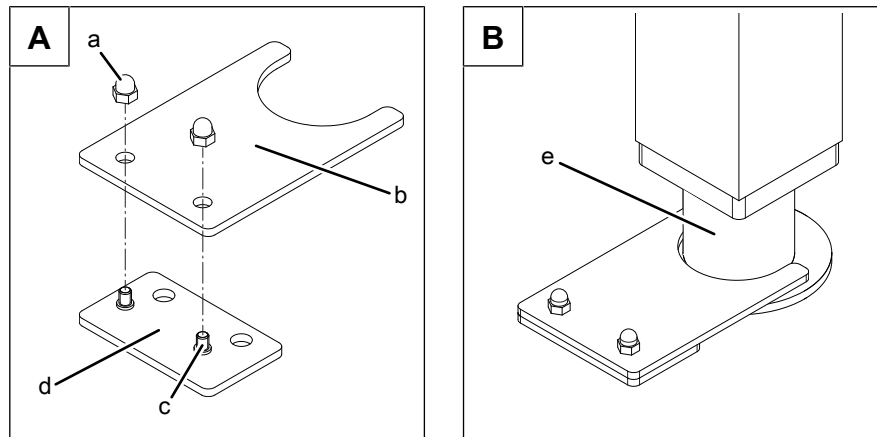


Image: A: Position of floor plate; B: floor plate glued to the floor

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

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 against sliding

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

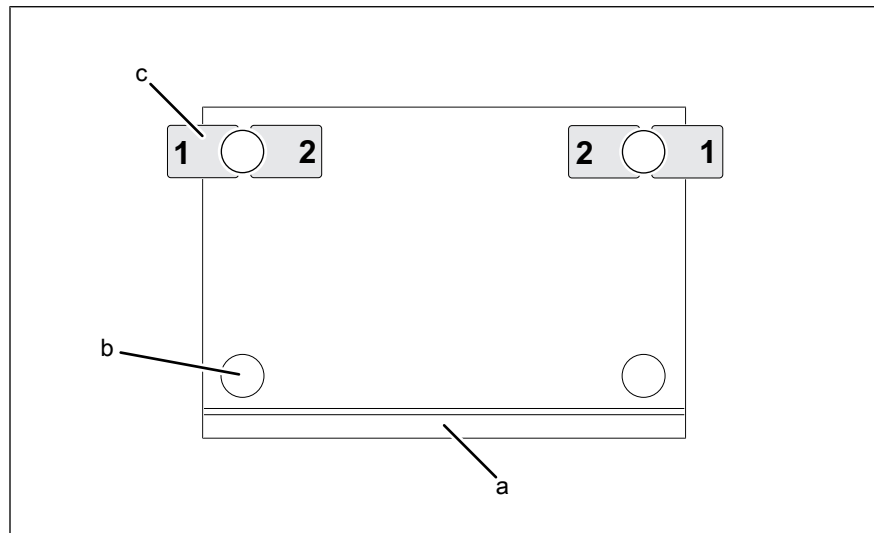


Image: Arrangement of the floor plates (view from above)

- 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.

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.

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

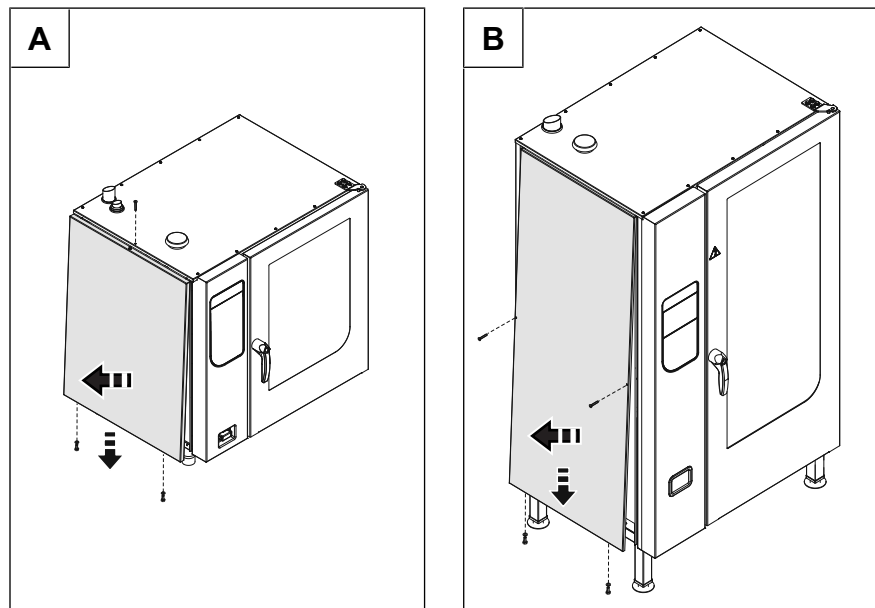


Image: A Sizes 6XX and 1XX; B Size 2XX

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

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 Checking the supply air and exhaust gas routing

Routing of the supply air and exhaust gas must comply with the national and regional laws, regulations, standards and directives.

! WARNING

Risk of poisoning from exhaust gases

- Ensure that exhaust gases are routed to the outside.
- Install the unit below or at ventilation systems.
- For type B devices: Connect unit to ventilation system or chimney.
- Ensure that the unit can be operated only when the ventilation system is switched on.

! WARNING

Risk of burns and fire from the high temperature of the exhaust gas

The temperature of the exhaust gas can be up to 400 °C (752 °F).

- Do not touch the exhaust gas opening or its cover.
- Do not place any objects in close proximity to the exhaust gas opening or on the unit.

Installation room requirements

- An adequate supply air from outside joints and openings to the outside or an HVAC system is assured.
- Routing of exhaust gas to the outside is assured.
- Routing of the supply air and exhaust gas must not impair proper operation (for example by underpressure).
- A safety device must ensure that gas can be supplied only when the ventilation system is switched on.
- How the exhaust gas is routed depends on the unit type:
 - Type A unit: Indirect routing of exhaust gas via ventilation systems such as a ventilated ceiling or ventilation hood.

Connecting the unit

- Type B unit: Direct routing of exhaust gas via ventilation system or chimney or indirect routing of exhaust gas via ventilation systems such as ventilated ceiling or ventilation hood.

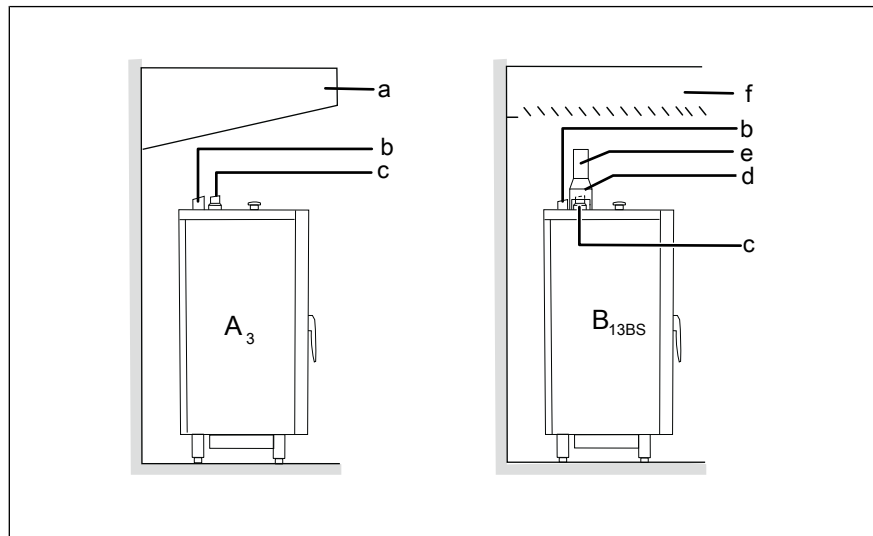


Image: Indirect exhaust gas routing

- | | |
|------------------------|----------------------|
| a Ventilation hood | d Flow control |
| b Steam outlet nozzle | e Exhaust gas duct |
| c Waste gas connection | f Ventilated ceiling |

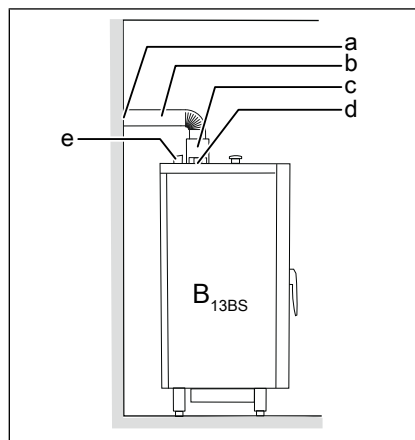


Image: Direct exhaust gas routing

- | | |
|---------------------------------|---------------------------|
| a Ventilation system or chimney | d Waste gas connection |
| b Exhaust gas duct | e Steam outlet connection |
| c Flow control | |

1. Ensure that all conditions in this section are satisfied.
2. Ensure that the supply air and exhaust gas routing is unobstructed.
3. Ensure that supply air and exhaust gas routing functions properly.
4. Fill out the Start-up operation report.

6.3 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 fixed electrical connection, install an all-pole disconnecting unit with at least 3 mm (0.12 in) contact opening in front of 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

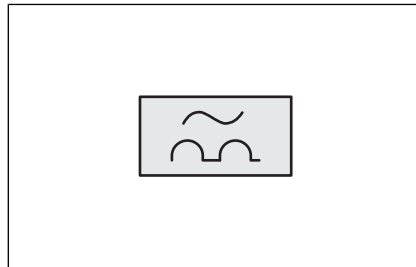


Image: RCD switch type A circuit symbol

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.

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.

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.

Potential equalization

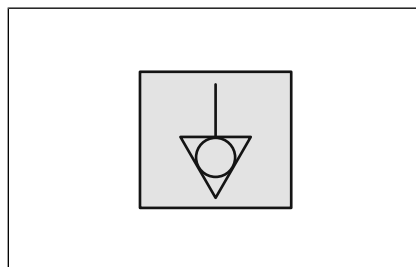


Image: Potential equalization symbol

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

6.3.1 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.

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.

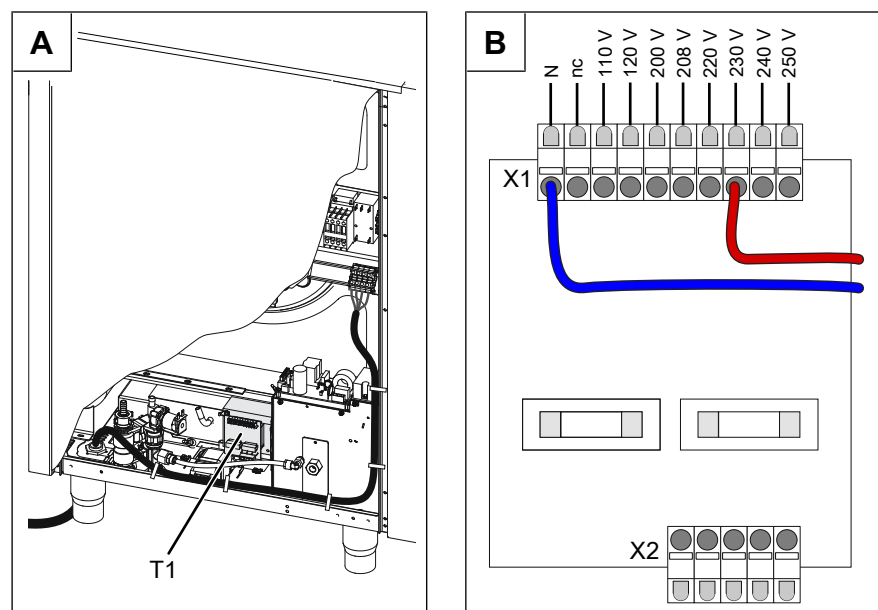


Image: A Transformer T1 location; B Transformer connections for control system

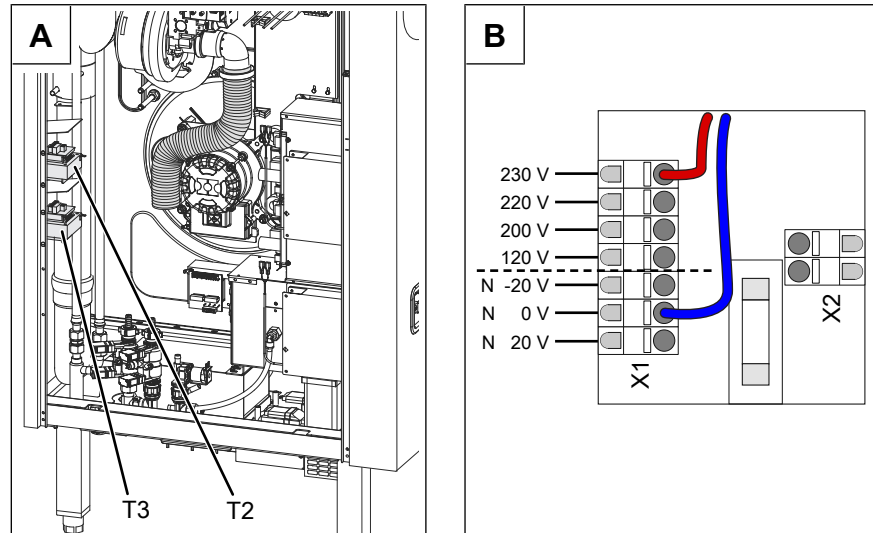


Image: A Transformer T2, T3 location; B Transformer connection for glow electrode

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.

6.3.2 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.

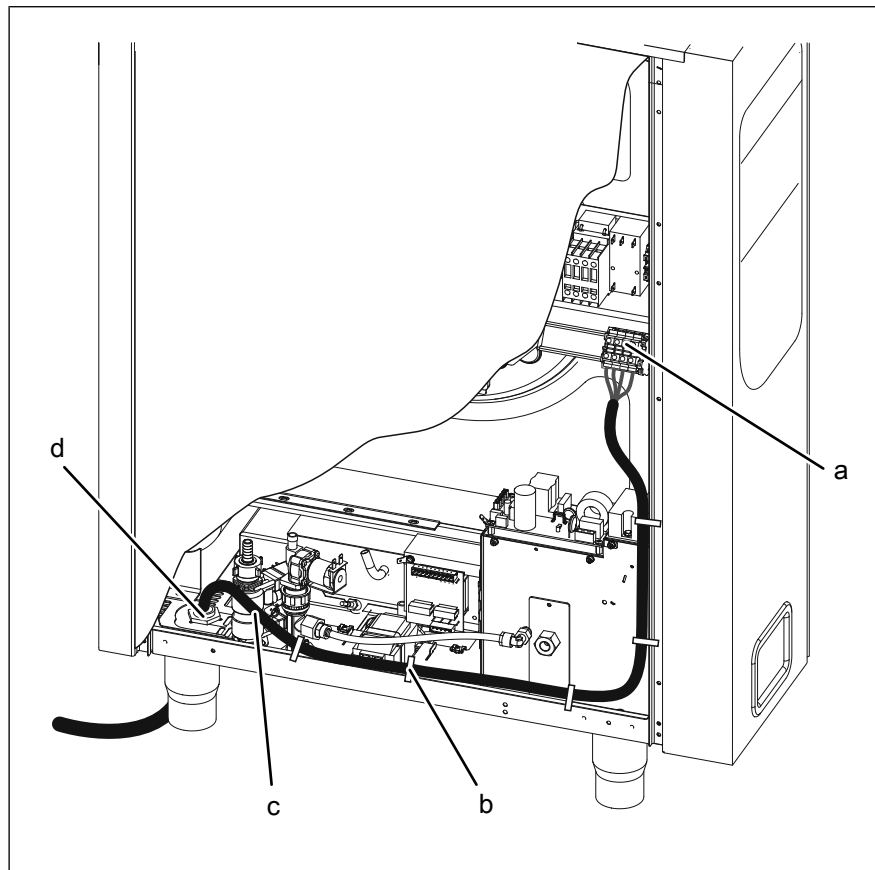


Image: Connecting the electrical connection line

- | | | | |
|---|----------------------|---|----------------------------|
| a | Connection terminals | c | Electrical connection line |
| b | Cable ties | 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.

6.3.3 Connecting the potential equalization

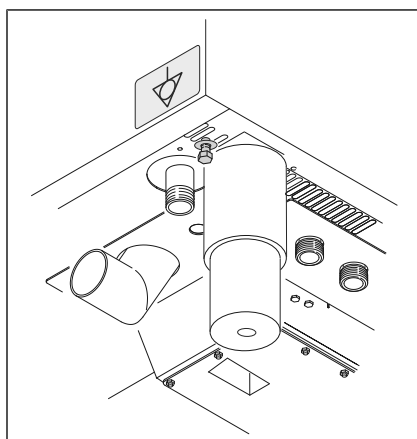
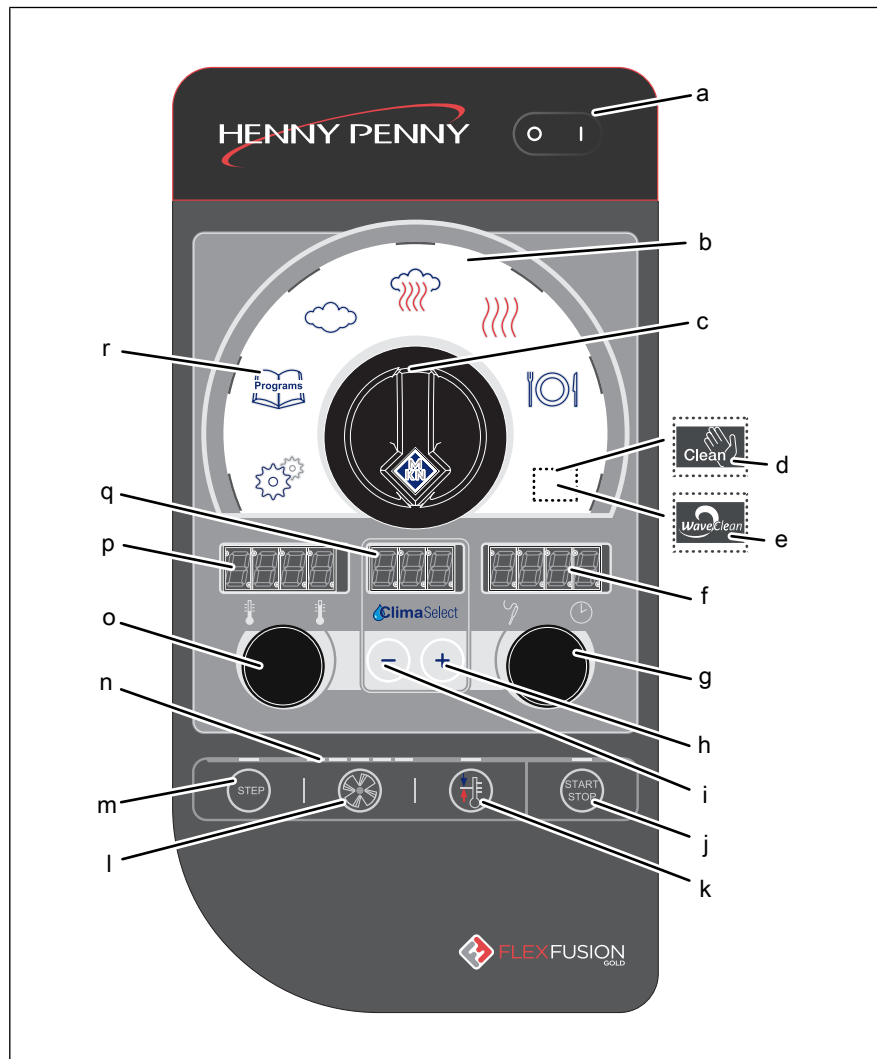


Image: Connecting the potential equalization

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

6.4 Performing the basic setting of the control



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

6.4.1 Opening the Setting menu

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

Prerequisite Unit switched on

1. Turn the *Selection* operating knob to the *Settings* symbol.
 - ↳ The indicator light illuminates.
 - ↳ The left display reads "PASS".
 - ↳ The right display flashes "- - -".
2. Use the right rotary knob to set the password.
 - ↳ The right display shows the password set.
3. Press the "Start Stop" button.
 - ↳ Use the left rotary knob to select "OPT".
4. Press the "Step" button to leave the setting menu.
 - ↳ Basic settings can be changed.

6.4.2 Changing the basic setting of the control

1. Press the "START STOP" button.
 - ↳ Left display flashes the basic setting parameter (see "Unit 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 rotary knob.
 - ↳ Set new value.
5. Press the "START STOP" button.
 - ↳ Accept changes.
6. Press the "STEP" button twice to leave the Settings menu without changes.
7. Press and hold the "STEP" button for 3 seconds.
 - ↳ Changes are saved.
 - ↳ "OPT" flashes on the left display.
 - ↳ The centre display shows "Stor".
 - ↳ The unit restarts.
8. Fill out the start-up operation report.

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 network must be equipped with a type EA backflow 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.

INFORMATION

The unit can be connected to a reverse osmosis system.

The material of the connection line from the reverse osmosis system to the unit must be suitable.

6.5.1 Connecting the drinking water connection line

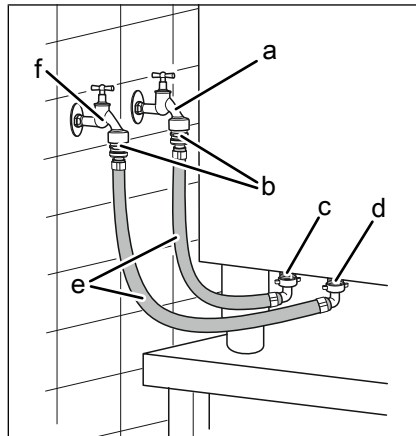


Image: Water connection

- | | |
|--------------------------------------|-----------------------------|
| 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.

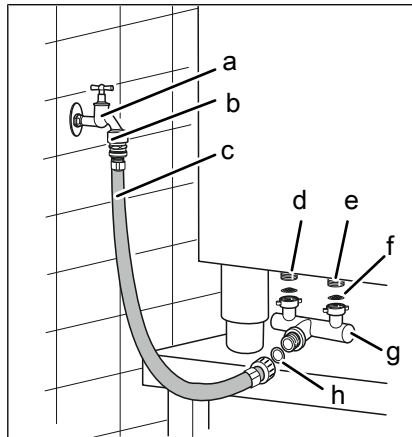


Image: Connecting softened drinking water to both connections

- | | |
|--------------------------------------|-----------------------------|
| 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 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	Waste water mains connection type
 Automatic cleaning system	<ul style="list-style-type: none"> • Permanent connection • Free discharge
 Manual cleaning system	<ul style="list-style-type: none"> • Free discharge

6.6.2 Connecting the waste water line to a permanent connection

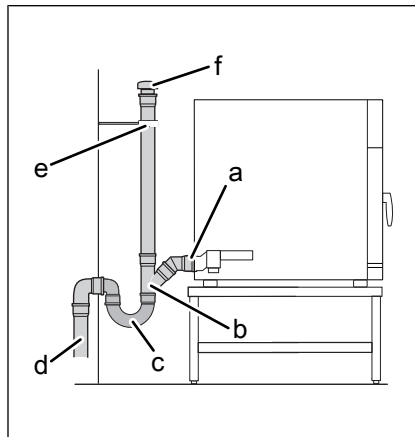


Image: Waste water line to a permanent connection

- a Waste water connection
- b Waste water line
- c Waste water mains
- d Siphon
- e Pipe clamp
- 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.

6.6.3 Connecting a waste water line with an unobstructed discharge

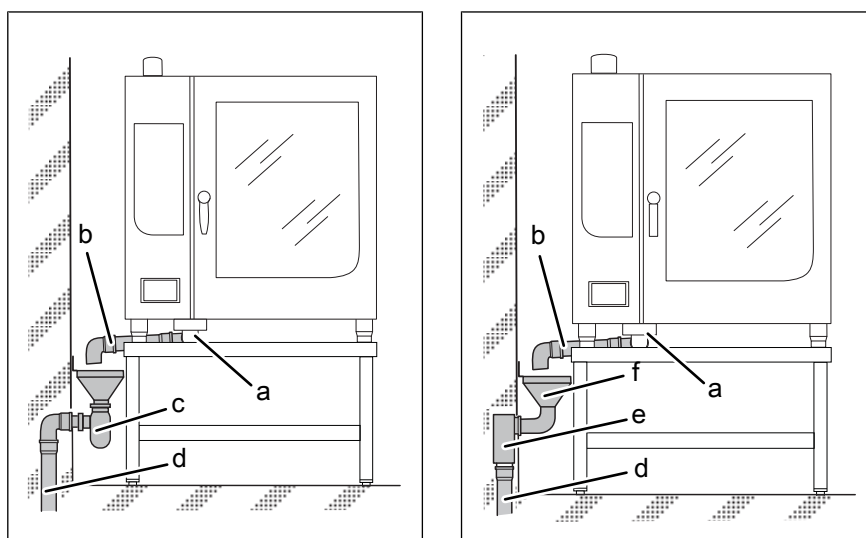


Image: Connecting a waste water line with an unobstructed discharge

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

INFORMATION

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

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

1. Connect the discharge funnel with waste trap to the sewer system.
2. Connect the waste water line to the unit and extend it to the discharge funnel.
3. Secure waste water line with pipe clamps.
4. Install outlet of the waste water line 20 mm (0.78 in) above the discharge funnel.
5. Fill the discharge funnel with tap water.
6. Fill out the Start-up operation report.

6.7 Establishing the gas connection

Gas installation work

Gas installation work on the gas system and the unit may only be performed by a specialist company, which is approved by the gas 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 gas utility company responsible.

Professional qualification for gas installation work

Gas installation work on the gas system and unit may only be performed by an expert, approved by the gas utility, from the specialist company assigned to the work.

DANGER

Risk of fatal injury from operating the unit with the wrong gas type

- Ensure that the gas type for which the unit is set (see gas type supplemental label) matches the gas type available at the site.
- Ensure that the unit is suitable for the available gas type (see nameplate).

The unit is a Category II multi-gas unit and is intended for operation with natural gas or liquefied gas (LPG).

The unit must be connected on the basis of the information on the nameplate, gas type supplemental label and this manual.

Nameplate and gas type supplemental label

The gas type for which the unit is set is indicated on the gas type supplemental label.

The connection pressure and the category are indicated on the nameplate. The gas types for which the unit is intended can be identified from the category.

Conditions

Before the gas connection line can be connected to the unit, the following conditions must be satisfied:

- The gas type for which the unit is set must match the gas type available at the site. If this is not the case, the unit must be converted to the gas type available (see "Converting the gas type"). Based on the category, check whether the unit is intended for the gas type available.
- All parts of the gas system must be approved for use with gas.
- The gas shut-off valve for the unit must be readily accessible.
- The diameter of the gas connection line must not be smaller than that of the connection on the unit.
- The gas connection and the gas connection line must be positioned such that they cannot be damaged by heat.

Permanent connection

The unit is intended for a permanent connection. The connection line must be flexible. Route the flexible gas connection line or gas hose in accordance with the manufacturer's specification without being stressed, kinked or twisted.

Shut-off device

The unit or the gas connection line must be equipped with a thermally activated shut-off. In strictly commercial buildings, a thermally activated shut-off is not necessary if the objective of providing fire and explosion safety is achieved by other means.

6.7.1 Description of the gas connection

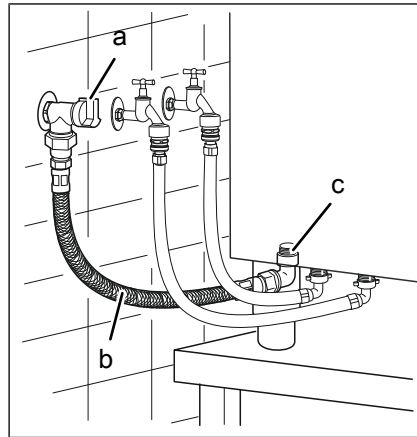


Image: Gas connection

a Gas shut-off valve
b Gas connection line

c Gas connection

6.7.2 To connect the gas connection line

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

NOTICE

Risk of physical damage from improper gas connection

- Do not mix up the gas connection with a drinking water connection.
- If the gas connection was mixed up with a drinking water connection, contact customer service.

Prerequisite Gas shut-off valve closed

Unit dead

Left side wall removed

1. Connect the unit to the gas connection line.

NOTICE

Risk of physical damage from excessively high pressure

- When opening the gas shut-off valve on the unit, ensure that the pressure in the gas connection line is < 100 hPa (208,8 lbf/sqft).
- If the pressure is > 100 hPa (208,8 lbf/sqft), close the gas supply, reduce the pressure in a technically correct manner and notify the gas supplier.

2. Open the gas shut-off valve on the unit, while paying attention to the pressure in the gas connection line.

DANGER

Risk of explosion and fire from escaping gas

- When bleeding air from or degassing the gas system and the unit, ensure that the air and gas are discharged to the outside in a technically correct manner and without creating a risk.

3. Bleed the air from the gas system and unit in a technically correct manner.
4. Check for leaks outside the unit (see "Checking for leaks").

WARNING

Risk of poisoning from exhaust gases

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

5. Switch on the unit.
6. Check the connection pressure (see "Checking the connection pressure").
7. Check for leaks inside the unit (see "Checking for leaks").
8. Check the ignition behaviour (see "Checking the ignition behaviour").
9. Check the flame pattern (see "Checking the flame pattern").
10. Check the basic gas setting (see "Checking the basic gas setting").
11. Switch off the unit.
12. Close the housing (see "Opening and closing the housing").
13. Fill out the Start-up operation report.

6.7.3 Checking for leaktightness

Prerequisite Gas connection line connected

Left side wall removed

1. Check for leaks outside the unit.
2. Check for leaks inside the unit.

⚠ DANGER**Risk of explosion and fire from leaking, gas-conducting parts**

- Check the gas connection line and all gas-conducting parts for leakage tightness at the operating pressure.
- Use only bubble-forming agents and gas leak detectors approved for use with gas.

⚠ DANGER**Risk of personal injury and property damage from electric shock**

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

NOTICE**Risk of physical damage from electrical short-circuits**

- Do not spray bubble-forming agents onto electrical components and wires.

INFORMATION

Gas leak detectors respond to almost all combustible gases, even CO.

For this reason, ensure that the zero-point calibration of the gas leak detector was performed in fresh air, free of combustible gases. Observe the manufacturer's information.

Checking for leaktightness outside the unit

1. Open the gas shut-off valve.
2. Before putting the unit into service at operating pressure, check the gas connection line and all gas-conducting parts outside the unit for leaktightness with a bubble-forming agent or gas leak detector in accordance with the Technical Regulations for Gas Installations.
3. Fill out the Start-up operation report.

Checking for leaks inside the unit

Prerequisite Connection pressure checked

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".

6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
7. Before putting the unit into service at operating pressure, check the gas connection line and all gas-conducting parts inside the unit for leaks with a bubble-forming agent or gas leak detector in accordance with the Technical Regulations for Gas Installations.
8. To end the test, press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button goes out; the burner is off.
9. Switch off the unit.
10. Fill out the Start-up operation report.

6.7.4 Checking the connection pressure

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

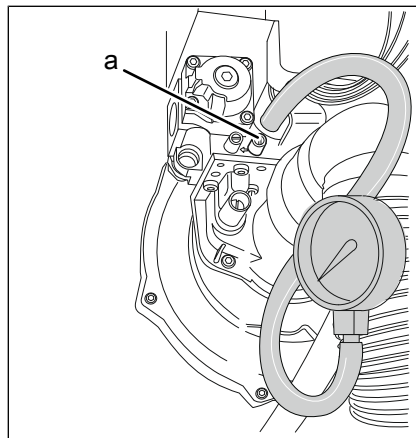


Image: Connection pressure measuring point

- a Connection pressure measuring point

Prerequisite Gas connection line connected

Checked for leaktightness outside the unit

Measuring accuracy of the pressure measuring device at least 0,1 hPa (0,2 lbf/sqft)

Left side wall removed

1. Close the gas shut-off valve on the unit.
2. Unscrew the sealing plug from the connection pressure measuring point.
3. Connect the pressure measuring device.

NOTICE**Risk of physical damage from excessively high pressure**

- When opening the gas shut-off valve on the unit, ensure that the pressure in the gas connection line is < 100 hPa (208,8 lbf/sqft).
- If the pressure is > 100 hPa (208,8 lbf/sqft), close the gas supply, reduce the pressure in a technically correct manner and notify the gas supplier.

4. Open the gas shut-off valve on the unit, while paying attention to the pressure in the gas connection line.

 DANGER**Risk of explosion and fire from escaping gas**

- When bleeding air from or degassing the gas system and the unit, ensure that the air and gas are discharged to the outside in a technically correct manner and without creating a risk.

5. Bleed the air from the gas system and unit in a technically correct manner.
6. Switch on the unit.
7. Open the *CO2 setting* display (see "Checking the basic gas setting").
8. Press the "START STOP" button.
9. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
10. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
11. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
12. Measure the connection pressure.

 DANGER**Risk of fatal injury from operating the unit at a connection pressure outside the specified range**

- Do not put the unit into service.
- Notify the gas supplier.

13. Check whether the measured connection pressure is within the specified range (see "Unit and connection data").
14. To end the test, press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button goes out; the burner is off.
15. Switch off the unit.
16. Close the gas shut-off valve on the unit.

17. Disconnect the pressure measuring device.
18. Screw the sealing plug tightly into the connection pressure measuring point.
19. Open the gas shut-off valve on the unit.
20. Check the connection pressure measuring point for leaks (see "Checking for leaks").
21. On models with two burners: Repeat the procedure for the second burner.
22. Fill out the Start-up operation report.

6.7.5 Checking the basic gas setting

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

WARNING

Risk of poisoning from exhaust gases

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

INFORMATION

Some measurements on the unit require it to be at operating temperature.

- The operating temperature is reached when the temperature in the cooking chamber is between 130 °C (266 °F) — 180 °C (356 °F).

Prerequisite Gas connection line connected
Checked for leaktightness outside the unit
Connection pressure checked
Checked for leaktightness inside the unit
Left side wall removed

1. Check the rated heat input at maximum output.
2. Check the rated heat input at minimum output.
3. Check the primary air quantity.
4. Check the exhaust gas values.

Preparations

1. Switch on the unit.
2. Turn the *Select* knob to the Settings symbol.
 - ↳ The indicator light illuminates.
 - ↳ The left display shows "PASS".
 - ↳ The right display flashes "----".

3. Using the right knob, set "999".
4. Press the "START STOP" button.
 - ↳ The left display flashes "CO2".

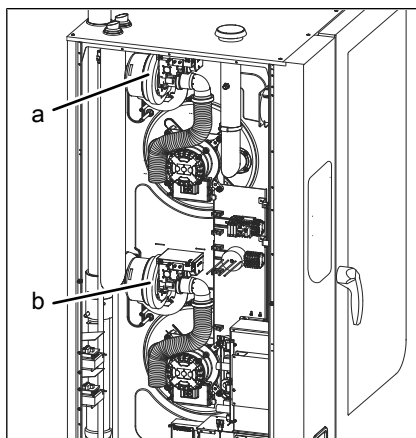


Image: Size 2XX

- a Burner 1 (cooking chamber 1) b Burner 2 (cooking chamber 2)

Checking the rated heat input at maximum output

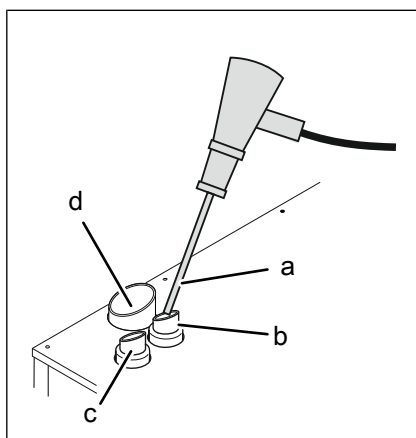


Image: Measurement in the exhaust gas

- a Exhaust gas measuring device c Waste gas connection, burner 2 (size 2XX only)
- b Waste gas connection, burner 1 d Steam outlet nozzle

- Prerequisite**
1. Switch on the unit.
 2. Open the *CO2 setting* display (see "Checking the basic gas setting").
 3. Press the "START STOP" button.
 4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
 5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".

6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").
8. Press the *Ready2Cook* button.
 - ↳ The right display shows the burner's gas blower speed.
9. Check whether the displayed speed matches the speed specified for the model (see "Unit and connection data").
 - ↳ If the displayed speed does not match the speed for the model specified in the table, contact customer service.
10. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
11. Check whether the measured CO₂ content is within the specified range (see "Unit and connection data").
 - ↳ If the CO₂ content is not within the specified range, adjust the basic gas setting (see "Adjusting the basic gas setting").
12. On models with two burners: Repeat the procedure for the second burner.
13. To end the CO₂ measurement, press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button goes out; the burner is off.
14. Switch off the unit.
15. Fill out the start-up operation report.

Checking the rated heat input at minimum output

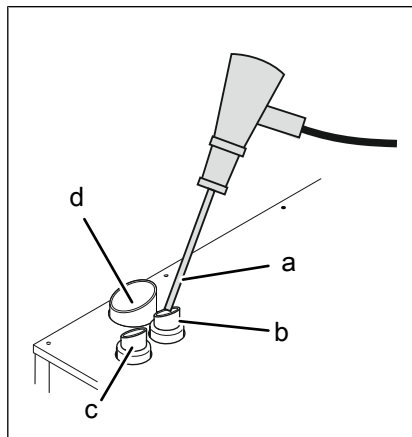


Image: Measurement in the exhaust gas

- | | |
|----------------------------------|--|
| a Exhaust gas measuring device | c Waste gas connection, burner 2 (size 2XX only) |
| b Waste gas connection, burner 1 | d Steam outlet nozzle |

Prerequisite Gas shut-off valve on the unit open

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to low output ("LO").
 - ↳ The left display flashes "LO".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates under partial load.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").
8. Press the *Ready2Cook* button.
 - ↳ The right display shows the burner's gas blower speed.
9. Check whether the displayed speed matches the speed specified for the model (see "Unit and connection data").
 - ↳ If the displayed speed does not match the speed for the model specified in the table, contact customer service.

10. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
11. Check whether the measured CO₂ content is within the specified range (see "Unit and connection data").
 - ↳ If the CO₂ content is not within the specified range, adjust the basic gas setting (see "Adjusting the basic gas setting").
12. On models with two burners: Repeat the procedure for the second burner.
13. To end the CO₂ measurement, press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button goes out; the burner is off.
14. Switch off the unit.
15. Fill out the start-up operation report.

Checking the primary air quantity

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

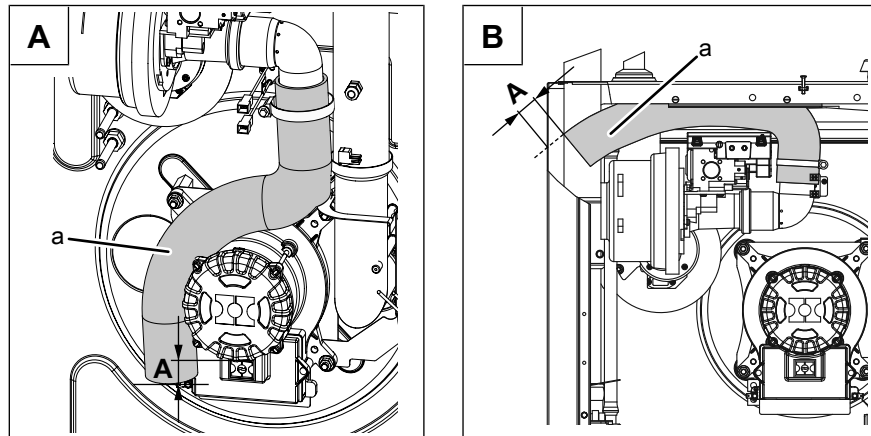


Image: A Sizes 1XX and 2XX; B Size 6XX

- a Suction hose
- A Primary air gap

Prerequisite Left side wall removed

1. Check the position and condition of the suction hose.
 - ↳ Suction hose has no kinks.
 - ↳ The suction hose is installed in the manner and position shown in the figure.
 - ↳ The suction hose is not damaged.
 - ↳ The opening in the suction hose is open and unobstructed.
 - ↳ If the position and condition are not OK, adjust the primary air gap (see "Adjusting the basic gas setting").
2. Measure the primary air gap (A).
3. Check whether the measured primary air gap is within the specified range (see "Unit and connection data").
 - ↳ If the measured primary air gap is not in the specified range, adjust the primary air quantity (see "Adjusting the basic gas setting").
4. Check the ignition behaviour (see "Checking the ignition behaviour").
 - ↳ The ignition behavior is OK.
 - ↳ If the ignition behaviour is not OK, adjust the primary air gap (see "Adjusting the basic gas setting").
5. Check the flame pattern.
 - ↳ Flame pattern is OK.
 - ↳ If the flame pattern is not OK, adjust the primary air gap (see "Adjusting the basic gas setting").
6. On models with two burners: Repeat the procedure for the second burner.
7. Fill out the start-up operation report.

Checking the exhaust gas values** DANGER****Risk of personal injury and property damage from electric shock**

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

 WARNING**Risk of poisoning from exhaust gases**

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

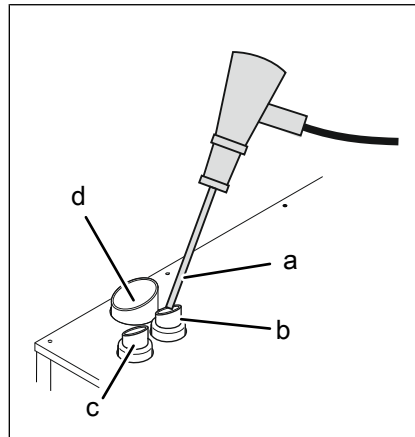


Image: Measurement in the exhaust gas

- | | |
|----------------------------------|---|
| a Exhaust gas measuring device | c Waste gas connection, burner 2
(size 2XX only) |
| b Waste gas connection, burner 1 | d Steam outlet nozzle |

Prerequisite Gas connection line connected

Checked for leak tightness outside the unit

Connection pressure checked

Checked for leak tightness inside the unit

Rated heat input checked

Primary air quantity checked

Left side wall removed

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").

8. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
9. Check whether the measured CO content is within the specified range (see "Unit and connection data").
 - ↳ If the CO content is not within the specified range, adjust the basic gas setting (see "Adjusting the basic gas setting").
10. On models with two burners: Repeat the procedure for the second burner.
11. To end the CO measurement, press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button goes out; the burner is off.
12. Switch off the unit.
13. Fill out the start-up operation report.

6.7.6 Adjusting the basic gas setting

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

WARNING

Risk of poisoning from exhaust gases

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

INFORMATION

Some measurements on the unit require it to be at operating temperature.

- The operating temperature is reached when the temperature in the cooking chamber is between 130 °C (266 °F) — 180 °C (356 °F).

Adjusting the rated heat input under partial load

INFORMATION

The offset pressure can be measured as an adjustment aid at minimum output (see " Adjusting the basic gas setting"). This is not a substitute for making the basic gas setting.

Prerequisite Gas connection line connected
Checked for leaktightness outside the unit
Connection pressure checked
Checked for leaktightness inside the unit
Basic gas setting checked
Left side wall removed

→ If the rated heat input is checked and not OK: adjust the rated heat input.

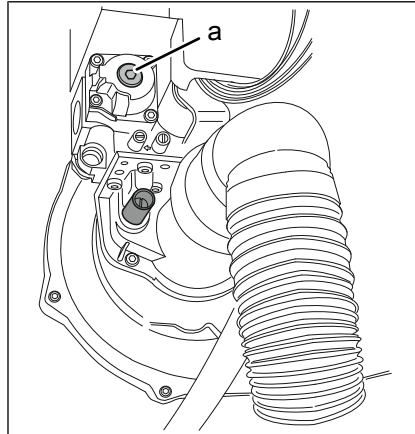


Image: Setting the rated heat input

a Adjusting screw for minimum output (TX40)

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to low output ("LO").
 - ↳ The left display flashes "LO".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates under partial load.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").

8. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
9. Check whether the measured CO₂ content is within the specified range (see "Unit and connection data").
10. Using the adjusting screw for minimum output, adjust the CO₂ content to the specified range for low output (setting is very sensitive).
 - ↳ Turning counterclockwise: CO₂ content is decreased.
 - ↳ Turning clockwise: CO₂ content is increased.
11. Press the *Ready2Cook* button.
 - ↳ The left display flashes "LO".
 - ↳ The centre display shows "CO2".
12. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
13. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
14. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
15. Check whether the measured CO₂ content is within the specified range (see "Unit and connection data").
 - ↳ If necessary, repeat the adjustment procedure until the CO₂ value at high and at low output is within the specified range.
 - ↳ If the CO₂ level at high output is still outside the specified range, the rated heat input must be set manually (see "Adjusting the basic gas setting").
16. On models with two burners: Repeat the procedure for the second burner.
17. To end the CO₂ measurement, press the "START STOP" button.
18. The indicator light in the "START STOP" button goes out; the burner is off.
19. Switch off the unit.
20. Fill out the start-up operation report.

Adjusting the primary air quantity

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

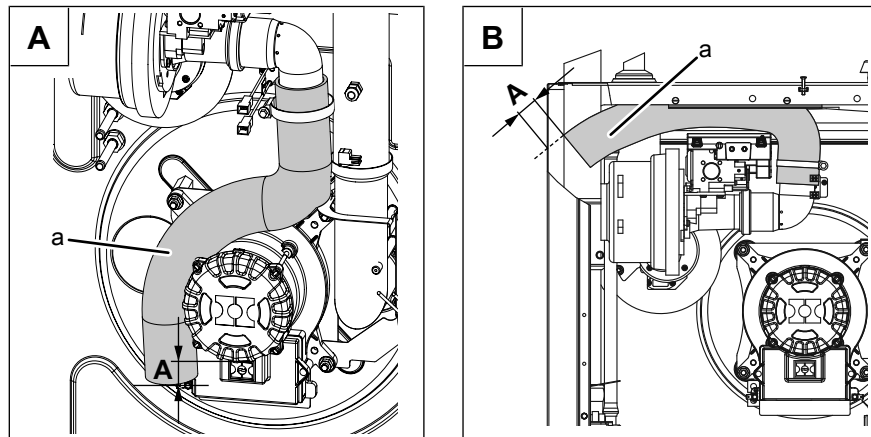


Image: A Sizes 1XX and 2XX; B Size 6XX

- a Suction hose
- A Primary air gap

Prerequisite Gas connection line connected
Checked for leaktightness outside the unit
Connection pressure checked
Checked for leaktightness inside the unit
Left side wall removed

→ If the primary air quantity is checked and not OK, adjust the primary air quantity.

1. Check the position and condition of the suction hose.
 - ↳ If the suction hose is kinked, replace it.
 - ↳ If the suction hose is not installed in the manner and position shown in the figure, correct the installation.
 - ↳ If the suction hose is damaged, replace it.
 - ↳ If the opening of the suction hose is blocked, clean the suction hose.
2. Adjust the primary air gap to within the specified range (A) by aligning the suction hose (see "Unit and connection data").
3. Check the basic gas setting (see "Checking the basic gas setting").
4. On models with two burners: Repeat the procedure for the second burner.
5. Switch off the unit.
6. Fill out the commissioning report.

Manually adjusting the rated heat input

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

INFORMATION

The offset pressure can be measured as an adjustment aid at minimum output (see "Adjusting the basic gas setting"). This is not a substitute for making the basic gas setting.

Prerequisite Gas connection line connected
 Checked for leaktightness outside the unit
 Connection pressure checked
 Checked for leaktightness inside the unit
 Basic gas setting checked
 Left side wall removed

1. Remove the gas orifice (see "Converting the gas type").
2. Screw in the adjusting screw for maximum output 10 mm (0,39 in) (basic setting).
3. Manually adjust the rated heat input for minimum power.
4. Manually adjust the rated heat input for maximum power.

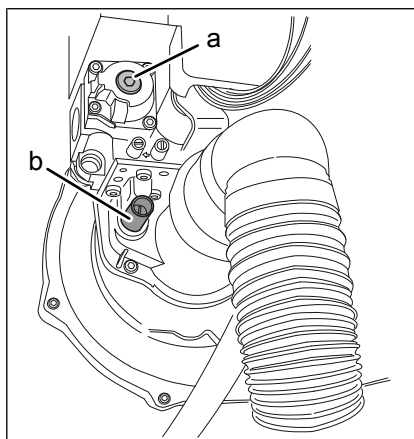


Image: Adjusting screws on the burner

a Adjusting screw for minimum output (TX40)

b Adjusting screw for maximum power (4 mm Allen key or 1.2 x 6.5 mm screwdriver)

Manually adjusting the rated heat input for minimum power

1. Switch on the unit.
2. Open the *CO₂ setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.

4. Using the left knob, set the burner to low output ("LO").
 - ↳ The left display flashes "LO".
 - ↳ The centre display shows "CO₂".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates under partial load.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").
8. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
9. Using the adjusting screw for minimum output, adjust the CO₂ content to the specified range for low output (setting is very sensitive).
 - ↳ Turning counterclockwise: CO₂ content is decreased.
 - ↳ Turning clockwise: CO₂ content is increased.
 - ↳ If necessary, repeat the adjustment procedure for maximum power until the CO₂ value at maximum capacity and at minimum capacity is within the specified range.
10. On models with two burners: Repeat the procedure for the second burner.
11. Check the waste gas values (see "Checking the basic gas setting").
12. To end the CO₂ measurement, press the "START STOP" button.
13. The indicator light in the "START STOP" button goes out; the burner is off.
14. Switch off the unit.
15. Fill out the start-up operation report.

Manually adjusting the rated heat input for maximum power

1. Switch on the unit.
2. Open the *CO₂ setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.

4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO₂".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
7. Press the *Ready2Cook* button.
 - ↳ The left display shows the current temperature in the cooking chamber.
 - ↳ The center display shows the selected burner "-1-" (on models with two burners).
 - ↳ The right display shows the current status of the burner ("G1F1").
8. Measure the exhaust gas values with an approved exhaust gas measuring device once the operating temperature is reached.
 - ↳ To regulate the cooking chamber temperature, open the cooking chamber door slightly.
9. Using the adjusting screw for maximum power, adjust the CO content to the specified range for high output. Set CO₂ level to the specified range for high output.
 - ↳ Turning counterclockwise: CO₂ content is increased.
 - ↳ Turning clockwise: CO₂ content is decreased.
 - ↳ If necessary, repeat the adjustment procedure for minimum power until the CO₂ value at maximum capacity and at minimum capacity is within the specified range.
10. On models with two burners: Repeat the procedure for the second burner.
11. Check the waste gas values (see "Checking the basic gas setting").
12. To end the CO₂ measurement, press the "START STOP" button.
13. The indicator light in the "START STOP" button goes out; the burner is off.
14. Switch off the unit.
15. Fill out the start-up operation report.

Checking the offset pressure

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

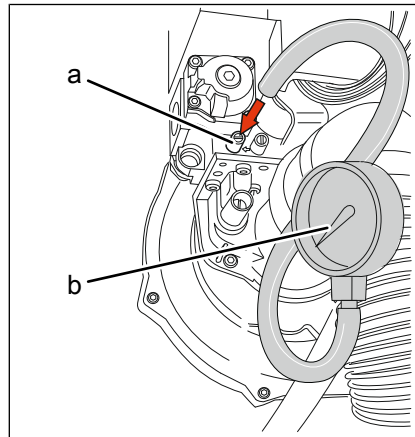


Image: Offset pressure

- a Offset pressure measuring point b Pressure measuring device

Prerequisite Basic gas setting checked and not OK
Gas connection line connected
Checked for leaktightness outside the unit
Connection pressure checked
Checked for leaktightness inside the unit
Left side wall removed
Measuring accuracy of the pressure measuring device at least 0,01 hPa (0,02 lbf/sqft)

1. Unscrew the sealing plug from the offset pressure measuring point.
2. Connect the pressure measuring device.
3. Switch on the unit.
4. Open the *CO2 setting* display (see "Checking the basic gas setting").
5. Press the "START STOP" button.
6. Using the left knob, set the burner to low output ("LO").
 - ↳ The left display flashes "LO".
 - ↳ The centre display shows "CO2".
7. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".

8. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates under partial load.
9. Measure the offset pressure.
10. Check whether the measured offset pressure is within the specified range (see "Unit and connection data").
11. To end the measurement, press the "START STOP" button.
12. The indicator light in the "START STOP" button goes out; the burner is off.
13. Switch off the unit.
14. Disconnect the pressure measuring device.
15. Screw the sealing plug tightly into the offset pressure measuring nozzle.
16. Check for offset pressure measuring nozzle for leaks (see "Checking for leaks").
17. On models with two burners: Repeat the procedure for the second burner.
18. Fill out the Start-up operation report.

6.8 Converting the gas type

6.8.1 Changing the gas orifice

DANGER

Risk of personal injury and property damage from electric shock

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

DANGER

Risk of explosion and fire from escaping gas

- When bleeding air from or degassing the gas system and the unit, ensure that the air and gas are discharged to the outside in a technically correct manner and without creating a risk.

DANGER

Risk of explosion or fire from operating the unit with the wrong gas type because of missing or incorrect gas type supplemental label

- When converting to a different gas type, replace the gas type supplemental label on the unit with the appropriate gas type supplemental label for the gas type available.

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

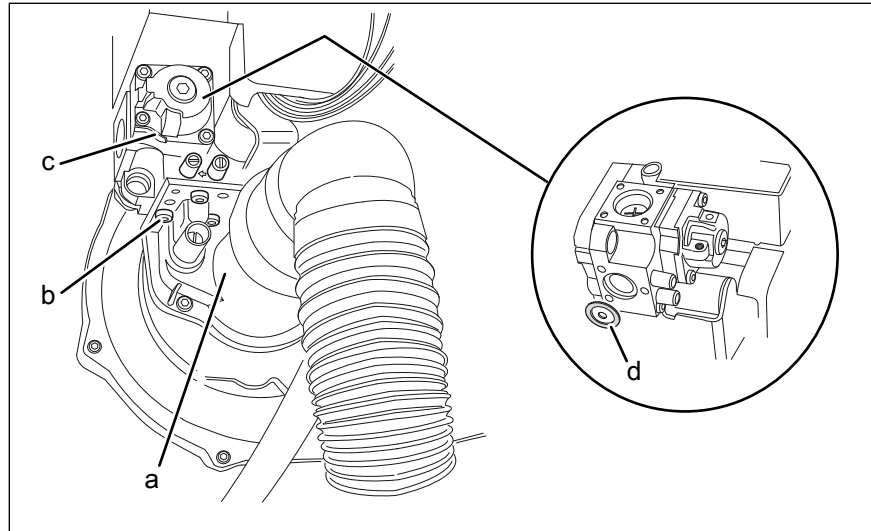


Image: Changing the gas orifice

- | | |
|----------------|-------------------------|
| a Burner | c Gas solenoid valve |
| b Bolts (TX25) | d Gas orifice with seal |

Prerequisite Unit dead

Gas shut-off valve on the unit is closed

Left side wall removed

1. If the unit is already filled with gas, release gas the unit in a technically correct manner.
2. Unscrew the bolts from the gas solenoid valve.
3. Remove the gas solenoid valve.
4. Remove the gas orifice with seal.

DANGER

Risk of asphyxiation and explosion from damaged seals

- Check seals for damage
 - Replace damaged seals
 - Use only seals that are approved for use with gas
5. Select the gas orifice specified for the gas type available and insert the seal (see "Unit and connection data").
 6. Replace the supplementary label for gas type on the unit with the appropriate supplementary label for the gas type available.
 7. Replace the gas solenoid valve and secure it with the bolts.
 8. On models with two burners: Repeat the procedure for the second burner.

9. Fill out the Start-up operation report.
10. Connect the unit to the gas connection line (see "Connecting the gas connection line").

NOTICE**Risk of physical damage from excessively high pressure**

- When opening the gas shut-off valve on the unit, ensure that the pressure in the gas connection line is < 100 hPa (208,8 lbf/sqft).
- If the pressure is > 100 hPa (208,8 lbf/sqft), close the gas supply, reduce the pressure in a technically correct manner and notify the gas supplier.

11. Open the gas shut-off valve on the unit, while paying attention to the pressure in the gas connection line.

! DANGER**Risk of explosion and fire from escaping gas**

- When bleeding air from or degassing the gas system and the unit, ensure that the air and gas are discharged to the outside in a technically correct manner and without creating a risk.

12. Bleed the air from the gas system and unit in a technically correct manner.
13. Check for leaks outside the unit (see "Checking for leaks").

! WARNING**Risk of poisoning from exhaust gases**

- Ensure that exhaust gases are discharged properly and that the necessary amount of combustion air is supplied.
- Ensure that a maximum CO content of < 0.1 vol. % or < 1000 ppm is achieved in undiluted exhaust gas.

14. Switch on the unit.
15. Check the connection pressure (see "Checking the connection pressure").
16. Check for leaks inside the unit (see "Checking for leaks").
17. Check the ignition behaviour (see "Checking the ignition behaviour").
18. Check the flame pattern (see "Checking the flame pattern").
19. Check the basic gas setting (see "Checking the basic gas setting").
20. Switch off the unit.
21. Close the housing (see "Opening and closing the housing").
22. Fill out the Start-up operation report.

6.9 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.

6.9.1 Connecting the exhaust air line

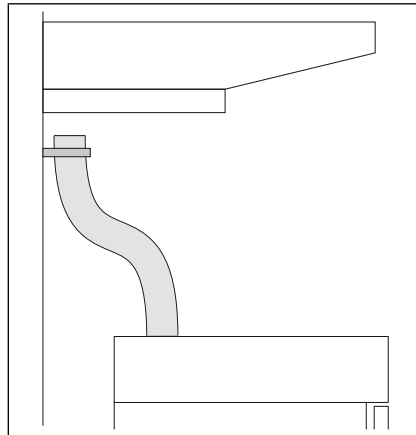


Image: Connecting the exhaust air line

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

- Prerequisite**
- Electrical connection made
 - Water connection made
 - Waste water connection made
 - Supply air and exhaust gas routing checked and switched on
 - Gas connection line connected
 - Checked for leaks outside the unit
 - Connection pressure checked
 - Checked for leaks inside the unit
 - Basic gas setting checked
 - Unit cleaned

7.1 Checking the exhaust gas routing for leaks

DANGER

Risk of personal injury and property damage from electric shock

- Inspection and adjustment work that can be carried out only with the housing open and the unit under power must be performed only by electrically trained qualified personnel.

- Prerequisite** Left side wall removed

1. Switching on the unit
2. Switch on the unit and start any cooking program at maximum temperature (see operating instructions).
 - ↳ The burner ignites.
 - ↳ The flame burns stably.
 - ↳ The unit operates at maximum power.
3. Check exhaust gas-conducting parts for leaktightness with a condensation mirror or approved backflow testing device in a technically correct manner.
4. Check for problem-free exhaust gas routing at the flow control (only type B_{13BS} unit).
5. End the cooking program.
 - ↳ The flame extinguishes.
 - ↳ The burner is off.
6. Switch off the unit.
7. Fill out the Start-up operation report.

7.2 Checking the monitoring of the exhaust gas routing

1. Switching on the unit

2. Switch on the unit and start any cooking program at maximum temperature (see operating instructions).
 - ↳ The burner ignites.
 - ↳ The flame burns stably.
3. Switch off the ventilation.
 - ↳ The gas supply is blocked.
 - ↳ The flame extinguishes.
 - ↳ The burner is off.
 - ↳ The unit attempts to ignite.
 - ↳ The safety device trips after 1 second.
 - ↳ An error message flashes on the display.
 - ↳ An audible signal sounds.
 - ↳ The *STEP* indicator light flashes.
 - ↳ The monitoring of the exhaust gas routing is functioning.
4. Switch on the ventilation.
5. Press the "STEP" button.
 - ↳ The unit restarts.
6. The cooking program starts again.
 - ↳ The burner ignites within 5 seconds.
 - ↳ The flame burns stably.
7. End the cooking program.
8. Switch off the unit.
9. Fill out the Start-up operation report.

7.3 Checking the ignition behaviour

Prerequisite Left side wall removed

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light for the "START STOP" button flashes.
 - ↳ The burner ignites.
 - ↳ The flame burns stably.
7. Press the "START STOP" button.
 - ↳ The flame extinguishes.
 - ↳ The burner is off.

8. Repeat the procedure several times.
9. On models with two burners: Repeat the procedure for the second burner.
10. Switch off the unit.
11. Fill out the start-up operation report.

7.4 Checking the flame monitoring

Prerequisite Ignition behaviour checked

1. Switch on the unit.
2. Open the *CO2 setting* display (see "Checking the basic gas setting").
3. Press the "START STOP" button.
4. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
5. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".
6. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
7. Close the gas shut-off valve on the unit.
 - ↳ The flame extinguishes.
 - ↳ The unit attempts to ignite 3 times.
 - ↳ The safety device trips.
 - ↳ An error message flashes on the display.
 - ↳ An audible signal sounds.
 - ↳ The *STEP* indicator light flashes.
 - ↳ The flame monitoring is functioning.
8. Open the gas shut-off valve on the unit.
9. Press the "STEP" button.
 - ↳ The unit restarts.
10. Open the *CO2 setting* display (see "Checking the basic gas setting").
11. Press the "START STOP" button.
12. Using the left knob, set the burner to high output ("HI").
 - ↳ The left display flashes "HI".
 - ↳ The centre display shows "CO2".
13. Use the right knob to select the first burner "-1-" (on models with two burners).
 - ↳ The right display flashes "-1-".

14. Press the "START STOP" button.
 - ↳ The indicator light in the "START STOP" button flashes; the burner starts.
 - ↳ The unit operates at maximum power.
15. Press the "START STOP" button.
16. The indicator light in the "START STOP" button goes out; the burner is off.
17. On models with two burners: Repeat the procedure for the second burner.
18. Switch off the unit.
19. Fill out the start-up operation report.

7.5 Checking the controls

Prerequisite Ignition behaviour checked

1. Switching on the unit
2. Select any cooking program (see operating instructions).
 - ↳ Set the cooking chamber temperature to a higher temperature than the current cooking chamber temperature.
3. Start cooking program.
 - ↳ The burner ignites.
 - ↳ The flame burns stably.
 - ↳ Once the set cooking chamber temperature is reached, the controls switch off the burner.
 - ↳ The flame extinguishes.
 - ↳ The burner is off.
 - ↳ The controls are functioning.
4. End the cooking program.
5. Switch off the unit.
6. Fill out the start-up operation report.

7.6 Checking the inspection of the cooking chamber door

1. Switching on the unit
2. Start any cooking program (see operating instructions).
 - ↳ The burner ignites.
 - ↳ The flame burns stably.
3. Open the cooking chamber door during operation.
 - ↳ The flame extinguishes.
 - ↳ The burner is off.
 - ↳ The fan comes to a stop.
 - ↳ The monitoring of the cooking chamber door is functioning.
4. Close the cooking chamber door.
5. Switch off the unit.
6. Fill out the Start-up operation report.

7.7 Heating and rinsing the unit

1. Switch on the unit.
2. Tap the "Manual cooking" button.
↳ The Manual cooking menu is displayed.
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 convection mode for 5 minutes at 180 °C (365 °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**
- Supply air and exhaust gas routing checked
 - Electrical connection made
 - Gas connection made
 - Water connection made
 - Waste water connection made
 - Exhaust air connection made (if required by the customer)
 - Function successfully tested
 - Housing closed
1. Instruct operator
 2. Filling out the Start-up operation report

8.1 Nameplate

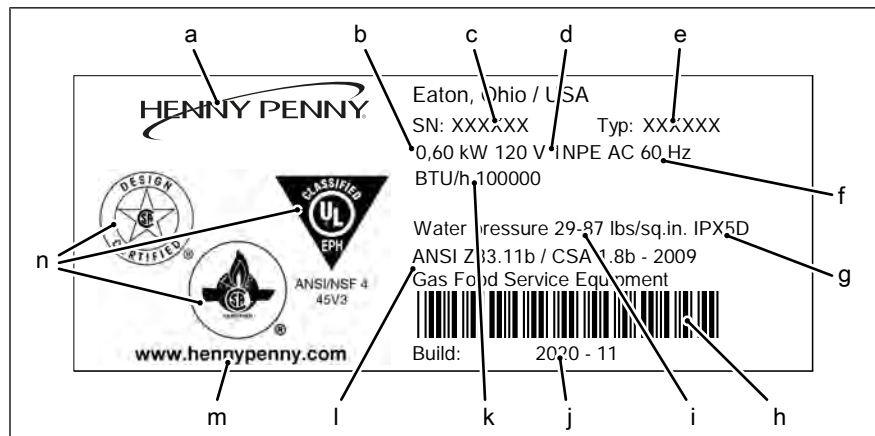


Image: Nameplate data

- | | | | |
|---|---------------------------|---|-------------------------------|
| a | Manufacturer | h | Barcode |
| b | Electrical connected load | i | Connection pressure for water |
| c | Serial number | j | Year of manufacture |
| d | Type of connection | k | Gas connection value |
| e | Type number | l | Test criteria |
| f | Frequency | m | Manufacturer's web address |
| g | Protective system | n | Certificate |

8.2 Filling out the commissioning report

General information	Yes	No
Information from the nameplate entered? SN: _____ Typ: _____ Gas connection value: _____ Electrical connected load: _____ Item-Nr.: _____ (if present)	<input type="checkbox"/>	<input type="checkbox"/>
Obvious damage to the unit? What and where?: _____	<input type="checkbox"/>	<input type="checkbox"/>
Unit levelled?	<input type="checkbox"/>	<input type="checkbox"/>

General information	Yes	No		
Unit fastened to floor?	<input type="checkbox"/>	<input type="checkbox"/>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> secured against tipping <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor </td> <td style="width: 50%; vertical-align: top;"> secured against shifting <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor </td> </tr> </table>	secured against tipping <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor	secured against shifting <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor	<input type="checkbox"/>	<input type="checkbox"/>
secured against tipping <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor	secured against shifting <input type="checkbox"/> Screwed to floor <input type="checkbox"/> Glued to floor			

Supply air and exhaust gas routing	Yes	No
Supply air and exhaust gas routing complies with regulations?	<input type="checkbox"/>	<input type="checkbox"/>
Supply air and exhaust gas routing connected in a technically correct manner?	<input type="checkbox"/>	<input type="checkbox"/>
Supply air and exhaust gas routing is functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>
Supply air and exhaust gas paths unobstructed?	<input type="checkbox"/>	<input type="checkbox"/>
Unit connected to monitoring of the exhaust gas routing in a technically correct manner?	<input type="checkbox"/>	<input type="checkbox"/>
The monitoring of the exhaust gas routing is functioning?	<input type="checkbox"/>	<input type="checkbox"/>

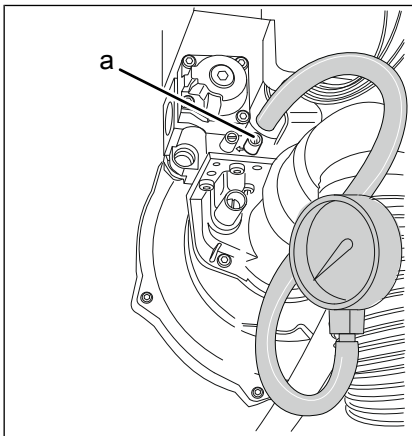
Electrical connection	Yes	No				
Electrical connection made properly?	<input type="checkbox"/>	<input type="checkbox"/>				
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Potential equalization</td> <td style="width: 50%;"><input type="checkbox"/> Power optimization system</td> </tr> <tr> <td><input type="checkbox"/> Potential-free contact</td> <td><input type="checkbox"/> _____</td> </tr> </table>	<input type="checkbox"/> Potential equalization	<input type="checkbox"/> Power optimization system	<input type="checkbox"/> Potential-free contact	<input type="checkbox"/> _____	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Potential equalization	<input type="checkbox"/> Power optimization system					
<input type="checkbox"/> Potential-free contact	<input type="checkbox"/> _____					
Electrical connections made properly?	<input type="checkbox"/>	<input type="checkbox"/>				
Fault current device connected directly before this unit?	<input type="checkbox"/>	<input type="checkbox"/>				
Fault current device connected before this and other units?	<input type="checkbox"/>	<input type="checkbox"/>				
Supply voltage measured?	<input type="checkbox"/>	<input type="checkbox"/>				
Supply voltage: _____ (V)						
Set transformer voltage						
T1: blue 0 V red _____ V; T2/T3: blue _____ V red _____ V						

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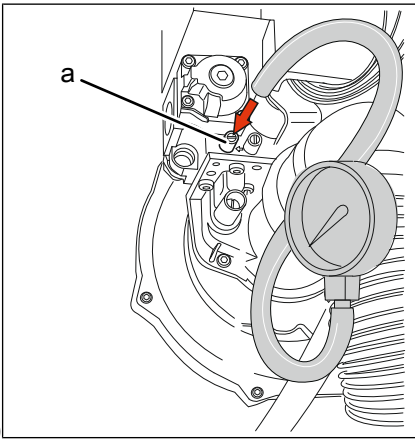
Putting the unit into service

Kitchen guiding system		Yes	No
Kitchen guiding system connected properly?		<input type="checkbox"/>	<input type="checkbox"/>
Basic setting of the control		Yes	No
Temperature unit set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> °C	<input type="checkbox"/> °F		
Date and time set?		<input type="checkbox"/>	<input type="checkbox"/>
Software version identified?		<input type="checkbox"/>	<input type="checkbox"/>
Version: _____			
Altitude set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 0 — 999 m (3277 ft)	<input type="checkbox"/> 1000 m (3280 ft) — 1999 m (6557 ft)		
<input type="checkbox"/> 2000 m (6560 ft) — 2499 m (8197 ft)	<input type="checkbox"/> 2500 m (8200 ft) or higher		
Audible signal volume set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Low	<input type="checkbox"/> High		
Signal tone selected?		<input type="checkbox"/>	<input type="checkbox"/>
Volume unit set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> ml	<input type="checkbox"/> fl.oz. (Imperial)		
<input type="checkbox"/> fl.oz. (U.S.)			
Water filter maintenance set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> No maintenance message	<input type="checkbox"/> Maintenance message at: _____ l (gal)		
Network configuration set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> DHCP	IP address: _____		
Subnet mask: _____	Gateway: _____		
Kitchen guiding system set?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Active	<input type="checkbox"/> Disabled		
<input type="checkbox"/> Ethernet	<input type="checkbox"/> Serial		
TCP port: _____	Unit address: _____		
Unit address: _____			
Water connection		Yes	No
Connection pressure within indicated range?		<input type="checkbox"/>	<input type="checkbox"/>
Connection pressure: _____ kPa (psi)			
Water connection made properly?		<input type="checkbox"/>	<input type="checkbox"/>
Lines and connections leak-tight?		<input type="checkbox"/>	<input type="checkbox"/>
Water connections connected with T-piece?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Connected only to softened drinking water	<input type="checkbox"/> Connected only to drinking water		

Gas connection	Yes	No
Does the information on the gas type supplemental label match the gas type available?	<input type="checkbox"/>	<input type="checkbox"/>
Information from the gas type supplemental label entered?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Natural gas E/H, G20, 20 hPa (41,8 lbf/sqft) <input type="checkbox"/> Natural gas LL/L, G25, 20 hPa (41,8 lbf/sqft) <input type="checkbox"/> Natural gas L, G25, 25 hPa (52,2 lbf/sqft) <input type="checkbox"/> Natural gas K, G25.3, 25 hPa (52,2 lbf/sqft) <input type="checkbox"/> Natural gas E+, G20/G25, 20 hPa (41,8 lbf/sqft)/25 hPa (52,2 lbf/sqft) <input type="checkbox"/> Natural gas 13A, G21, 20 hPa (41,8 lbf/sqft) <input type="checkbox"/> Natural gas A, 20 hPa (41,8 lbf/sqft) <input type="checkbox"/> Natural gas G20, NG174, NGN, 20 hPa (41,8 lbf/sqft) <input type="checkbox"/> Liquefied gas P, G31, 37 hPa (77,2 lbf/sqft) <input type="checkbox"/> Liquefied gas B/P, G30/G31, 50 hPa (104,4 lbf/sqft) <input type="checkbox"/> Liquefied gas B/P, G30/G31, 30 hPa (62,6 lbf/sqft) <input type="checkbox"/> Liquefied gas LP, gas B/P, G30/G31, 28 hPa (58,5 lbf/sqft) <input type="checkbox"/> Liquefied gas B/P, Gas E, 30 hPa (62,6 lbf/sqft) <input type="checkbox"/> Liquefied gas B/P, G30/G31, FL50, BP29, PX275, 50 hPa (104,4 lbf/sqft)		
<input type="checkbox"/> Other gas type: _____ hPa (lbf/sqft) Connection pressure: _____ hPa (lbf/sqft)		
Is gas connection made in a technically correct manner? Dimension of gas connection at the unit: _____ <input type="checkbox"/> mm or <input type="checkbox"/> inches Dimension of gas connection line at the wall : _____ <input type="checkbox"/> mm or <input type="checkbox"/> inches	<input type="checkbox"/>	<input type="checkbox"/>
Is the thermally activated shut-off installed?	<input type="checkbox"/>	<input type="checkbox"/>
Is the gas connection line leak-free?	<input type="checkbox"/>	<input type="checkbox"/>
Are gas-conducting parts inside the unit leak-free?	<input type="checkbox"/>	<input type="checkbox"/>
Connection pressure OK (right side port on gas valve "a")? Connection pressure: _____ hPa (lbf/sqft)	<input type="checkbox"/>	<input type="checkbox"/>



Putting the unit into service

Gas connection		Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>
Offset pressure OK? (Left side port on gas valve "a")			
<input type="checkbox"/> Measured: _____ hPa (lbf/sqft)			
Are exhaust gas values at full load OK?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Measured CO ₂ : _____ Vol %	<input type="checkbox"/> Set CO ₂ : _____ Vol %		
<input type="checkbox"/> Measured CO: _____ ppm	<input type="checkbox"/> Set CO: _____ ppm		
Are exhaust gas values at partial load OK?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Measured CO ₂ : _____ Vol %	<input type="checkbox"/> Set CO ₂ : _____ Vol %		
<input type="checkbox"/> Measured CO: _____ ppm	<input type="checkbox"/> Set CO: _____ ppm		
Conversion of gas type (if necessary)		Yes	No
Burner nozzle / gas orifice replaced?		<input type="checkbox"/>	<input type="checkbox"/>
Before conversion: Number of nozzles / gas orifices: _____ Coefficient: _____	After conversion: Number of nozzles / gas orifices: _____ Coefficient: _____		
Has the appropriate gas type supplemental label been attached after conversion?		<input type="checkbox"/>	<input type="checkbox"/>
Has information from the gas type supplemental label been entered after conversion?		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Natural gas E/H, G20, 20 hPa (41,8 lbf/sqft)	<input type="checkbox"/> Liquefied gas P, G31, 37 hPa (77,2 lbf/sqft)		
<input type="checkbox"/> Natural gas LL/L, G25, 20 hPa (41,8 lbf/sqft)	<input type="checkbox"/> Liquefied gas B/P, G30/G31, 50 hPa (104,4 lbf/sqft)		
<input type="checkbox"/> Natural gas L, G25, 25 hPa (52,2 lbf/sqft)	<input type="checkbox"/> Liquefied gas B/P, G30/G31, 30 hPa (62,6 lbf/sqft)		
<input type="checkbox"/> Natural gas K, G25.3, 25 hPa (52,2 lbf/sqft)	<input type="checkbox"/> Liquefied gas LP, gas B/P, G30/G31, 28 hPa (58,5 lbf/sqft)		
<input type="checkbox"/> Natural gas E+, G20/G25, 20 hPa (41,8 lbf/sqft)/25 hPa (52,2 lbf/sqft)	<input type="checkbox"/> Liquefied gas B/P, Gas E, 30 hPa (62,6 lbf/sqft)		
<input type="checkbox"/> Natural gas 13A, G21, 20 hPa (41,8 lbf/sqft)	<input type="checkbox"/> Liquefied gas B/P, G30/G31, FL50, BP29, PX275, 50 hPa (104,4 lbf/sqft)		
<input type="checkbox"/> Natural gas A, 20 hPa (41,8 lbf/sqft)			
<input type="checkbox"/> Natural gas G20, NG174, NGN, 20 hPa (41,8 lbf/sqft)			
<input type="checkbox"/> Other gas type: _____ hPa (lbf/sqft)	Connection pressure: _____		

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Exhaust air connection	Yes	No
Installation under ventilation system?	<input type="checkbox"/>	<input type="checkbox"/>
Connected to outgoing air duct?	<input type="checkbox"/>	<input type="checkbox"/>
Connection size of exhaust air line: _____ mm (in)		
Length of exhaust air line: _____ mm (in)		

Function check	Yes	No
Controls functioning?	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust gas routing is functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust gas routing is leak-free?	<input type="checkbox"/>	<input type="checkbox"/>
The monitoring of the exhaust gas routing is functioning?	<input type="checkbox"/>	<input type="checkbox"/>
Ignition behaviour OK?	<input type="checkbox"/>	<input type="checkbox"/>
Flame monitoring is functioning?	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring of cooking chamber door functioning?	<input type="checkbox"/>	<input type="checkbox"/>
Unit heated and rinsed?	<input type="checkbox"/>	<input type="checkbox"/>

Final notes	Yes	No
Was the unit put into service?	<input type="checkbox"/>	<input type="checkbox"/>
Comments:		
Operator trained?	<input type="checkbox"/>	<input type="checkbox"/>

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:			
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Putting the unit into service

Company	Installation fitter	Place, date	Signature
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The gas was connected by:

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

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

Company	Installation fitter	Place, date	Signature
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Operator was trained by:

Company	Installation fitter	Place, date	Signature
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Henny Penny Corp., Eaton, Ohio 45320, Revised 4/27/2021