iCombi® Pro
iCombi® Classic
CombiMaster® Plus

Original installation instructions

Device hand-over

Dealer:	Installer:

Include the following information with queries:

Device type:	
Device no.:	
Set to gas type:	
Your device was tested:	

⚠ WARNING

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

NOTE

Hazard due to leaking gas

There is a risk of explosion if their is a gas leak.

Check for the smell of gas.

Avoid damage to the gas supply line.

Conduct in the event of a gas smell:

- Shut off the gas supply.
- Do not touch any electrical switching components.
- Ventilate the room mechanically well.
- Avoid naked flames and sparks.
- Immediately inform the responsible gas supplier by means of an external telephone. If the gas supplier cannot be reached, call the responsible fire department.

Table of contents

1 Introduction

1.1 Information on this manual

This document is a version of the installation instructions. Please note the respective version and date.

This document is part of the device. Read this manual completely before the installation. The manual enables safe handling of the unit and correct installation.

The images in this manual are examples only and may differ from the device.

This manual is valid for the following devices:

- LM1: iCombi Pro
- LM2: iCombi Classic
- LM2: CombiMaster Plus XS

Storage

Keep the installation manual and operating manual with the unit. During service work, the installation manual must be accessible to service personnel authorized by the manufacturer at all times.

Transfer

Pass this installation manual on to the owner of the unit.

Circuit diagram

The starter kit includes a circuit diagram of the device. If the circuit diagram is lost, it can be accessed by an Authorized RATIONAL technician, found in the service parts catalog and the TechAssistant app. The TechAssistant app is available in the App Store and on Google Play.

Explanation of symbols

✔ A requirement lists all conditions that must be met before an action.

1. An action step describes an action to be carried out by the reader.

> Shows a successful interim result.

2. Further action step.

>> The results shows the result of the action.

1.2 Target audience

- This document is aimed at trained technicians, who have been certified by the manufacturer after taking part in trainings and safety trainings.
- The installation, as well as inspection, maintenance and repair work, may only be carried out by trained technicians.
- It is advisable to only have inspection, maintenance and repair work carried out by technicians authorized by the manufacturer.

- The unit must not be used, cleaned or maintained by other than adults. The unit should only be used as intended and designed. It must not be used in any other way than as designed..
- The unit must not be used, cleaned or maintained by persons with limited physical, sensory or mental aptitude, or lack of experience or knowledge, unless they are supervised by a person responsible for their safety and have received instruction from this person in the operation and risks associated with the unit.
- In order to avoid the risk of accidents or damage to property, the manufacturer advises that technicians attend regular training and safety training sessions.

1.3 Copyright

1.4 Conformity

The conformity of the devices refers to the complete device at the time of delivery. In the event of upgrades, modifications and connection of additional functions, the operator is responsible for obtaining an extended conformity.

Observe the relevant country-specific and local standards and regulations concerning the installation and operation of commercial cooking devices.

Conformity Europe

- The power connection is established and connected in accordance with IEC 60335, taking into account EN 60335, UL, cUL and VDE 0700.
- The water connection is established and connected in accordance with IEC 61770, taking into account EN 1717 and EN 13077.
- The wastewater connection corresponds to the current valid WRAS, SVGW and KIWA regulations and is tested and certified accordingly.
- The unit is approved for use up to 4000 m (12,000 ft) above sea level according to IEC 60335.

Conformity USA and Canada

- The power connection is built and tested according to UL 197 and CSA C22.2 no. 109.

1.5 Liability and warranty conditions

Liability

Installations and repairs that are not carried out by trained personnel authorized by the manufacturer or not using original service parts, as well as any technical changes to the unit that are not approved by the manufacturer, can render the manufacturer's product liability null and void.

Warranty

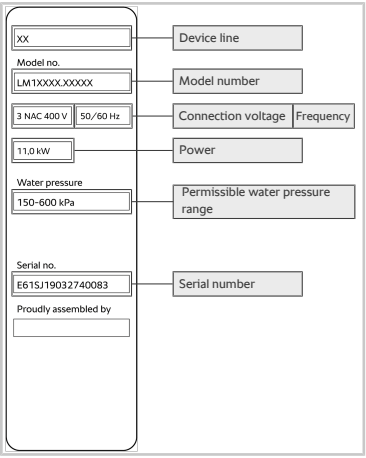
The warranty does not cover damage caused by failure to observe this installation manual.

The following are also excluded from the warranty:

- Damage caused by incorrect use, installation, maintenance, repair
- Damage due to incorrect decalcification
- Using the unit other than intended
- Modifications or technical changes to the unit that are not authorized by the manufacturer
- Failure to use genuine service parts from the manufacturer
- Glass damage, bulbs, gaskets and sealing material

1.6 Identification of the device

Type plate



Device sizes

Device size type plate	Unit size
LMxxx**A**...	XS
LMxxx**B**...	6 half size
LMxxx**C**...	6 full size

Device size type plate	Unit size
LMxxx**D**...	10 half size
LMxxx**E**...	10 full size
LMxxx**F**...	20 half size
LMxxx**G**...	20 full size

Unit overview

	Tabletop units					Floor units	
	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
iCombi Pro Electric units	✓	✓	✓	✓	✓	✓	✓
iCombi Pro Gas devices		✓	✓	✓	✓	✓	✓
iCombi Classic Electric units		✓	✓	✓	✓	✓	✓
iCombi Classic Gas devices		✓	✓	✓	✓	✓	✓
CombiMaster Plus	✓						

2 Safety

2.1 Display of warning notices

⚠ DANGER

Type and source of danger
Failure to observe these warnings will result in severe injuries or death.
Measures to avoid the danger

⚠ WARNING

Type and source of danger
Failure to observe these warnings could result in severe injuries or death.
Measures to avoid the danger

⚠ CAUTION

Type and source of danger
Failure to observe these warnings could result in minor or moderate injuries.
Measures to avoid the danger

NOTE

Failure to observe these warnings could result in damage to property.

2.2 General safety information

The device is designed so that it does not pose a danger when installed correctly. This manual describes proper installation of the device.

- Observe the relevant country-specific and local regulations and standards in your country.
- Use lifting aids such as lifting straps when transporting.
- Secure the device against tipping when transporting and after setup.
- Wear suitable protective clothing, such as protective gloves and safety shoes, during transport and installation.

- The device should only be set up in a protected environment safe from frost and wind.
- Do not set up the device in adverse weather conditions, such as rain.
- The device should only be connected in accordance with the installation manual and the information on the type plate.
- Switch off the unit when disconnecting it from or connecting it to the power supply.
- After use, only transport the device in ambient temperature of over 0°C [32 °F].
- Only store the device in ambient temperature of over 0°C [32 °F].
- Do not operate the device without an air filter.
- Do not spray aerosols in the area around the device while the device is in operation.
- Check the unit for transport damage. Inform your dealer/ shipping company immediately if you suspect transport damage.

2.3 Safety notes on gas devices

Harmful exhaust flue gases

There is a danger of suffocation if the concentration of harmful flue gases is inadmissible.

- Make sure that the installation area provides sufficient ventilation.
- Always carry out a flue gas analysis when commissioning gas devices.
- If an extractor hood is used, make sure that the extractor hood is turned on during gas operation.
- Do not place any objects on or over the flue gas pipes.
- Do not block the area around the exhaust pipes with objects.

Fire hazard due to hood exhaust pipes

There is a risk of fire if the exhaust hood is not cleaned regularly.

- Have the exhaust hood cleaned regularly in accordance with national regulations.

Explosion hazard due to leaking gas

There is a risk of explosion if their is a gas leak.

- Check for the smell of gas.
- Avoid damage to the gas supply line.
- Conduct in the event of a gas smell:

1. Shut off the gas supply.
2. Do not touch any electrical switching components.
3. Ventilate the room mechanically well.
4. Avoid naked flames and sparks.
5. Immediately inform the responsible gas supplier by means of an external telephone. If the gas supplier cannot be reached, call the responsible fire department.

NOTE

Keep the area around the device free from flammable materials.

2.4 Intended use

The device is designed for thermal food preparation. This unit is only intended for commercial use, such as in restaurant kitchens, hospital food service operations, bakeries, or delis. Do not use this device outdoors. This unit must not be used for continuous mass industrial food production.

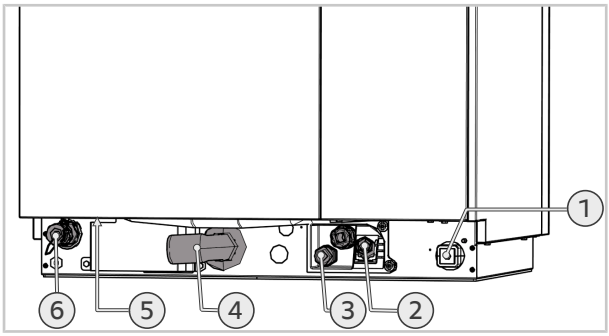
All other usages of this unit are considered improper and dangerous. The manufacturer accepts no liability for consequences arising from use other than intended.

3 Product description

3.1 Device description

Device size XS GN

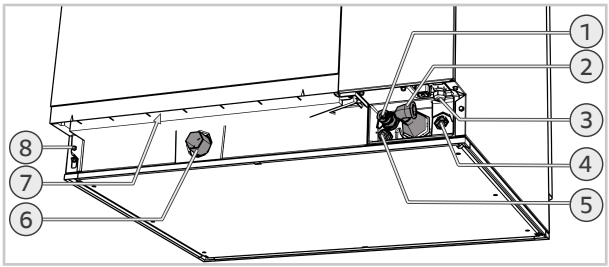
The connections for the installation are located on the rear side of the device:



1	Equipotential bonding (earth ground)	2	Water connection
3	Electrical connection	4	Waste water connection
5	Safety overflow for wastewater connection	6	Network connection

Device size 6 half size to 10 full size GN

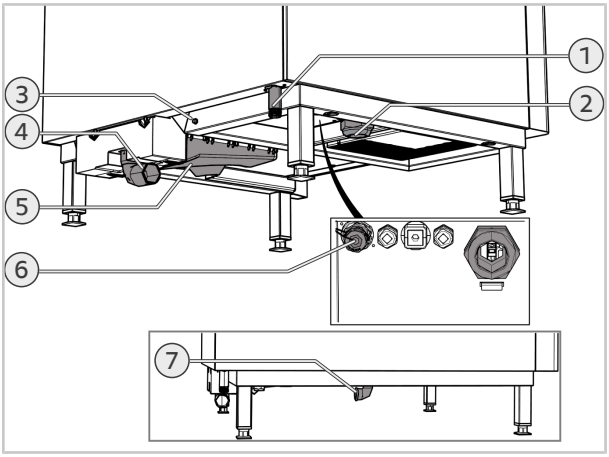
The connections for the installation are located on the rear side of the device:



1	Network connection	2	Only for gas devices: Gas connection Only for electrical devices: Electrical connection
3	Power supply	4	Water connection
5	Optional connection	6	Waste water connection
7	Safety overflow for wastewater connection	8	Equipotential bonding (earth ground)

Device size 20 half size and 20 full size GN

The connections for the installation are located on the underside of the device and run to the rear:



1	Water connection	2	Cable bushing for electrical connection
3	Equipotential bonding (earth ground)	4	Waste water connection
5	Safety overflow for wastewater connection	6	Network connection
7	Only for gas devices: Gas connection		

3.2 Technical data

Protection class

The device corresponds to water jet connection class IPX5.

Ambient conditions

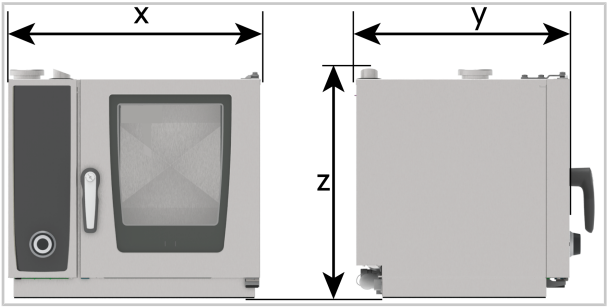
- Do not set up the device in ambient temperatures below 10 °C [50 °F].
- Do not commission the device in ambient temperatures below 10 °C [50 °F].
- Set up the device in rooms with adequate ventilation via windows or an extractor hood.

Sound emission value

The sound emission value is <65 dB.

3.2.1 Device dimensions

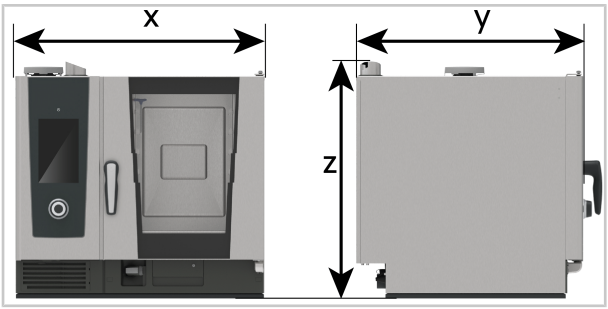
Device size XS GN



	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
XS	655	25 3/4	555	21 7/8	567	22 3/8

	Depth overall dimension (mm)	Depth overall dimension (inch)	Overall height (mm)	Overall height (inch)
XS	621	24 1/2	594	23 1/2

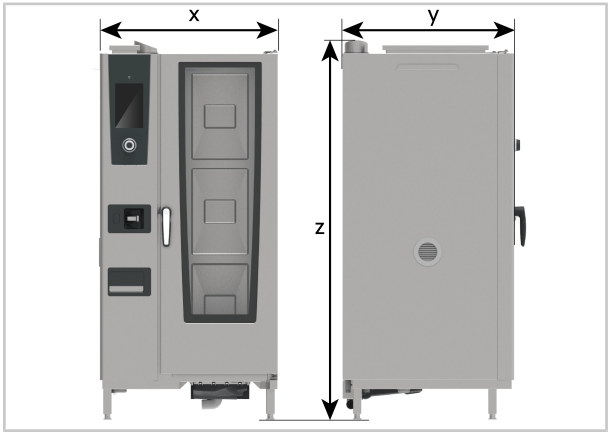
Device size 6 half size to 10 full size GN



	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
6 half size	850	33 1/2	775	30 1/2	754	29 5/8
6 full size	1072	42 1/4	975	38 3/8	754	29 5/8
10 half size	850	33 1/2	775	30 1/2	1014	39 7/8
10 full size	1072	42 1/4	975	38 3/8	1014	39 7/8

	Depth overall dimension (mm)	Depth overall dimension (inch)	Overall height (mm)	Overall height (inch)
6 half size	842	33 1/8	804	31 5/8
6 full size	1042	41	804	31 5/8
10 half size	842	33 1/8	1064	41 7/8
10 full size	1042	41	1064	41 7/8

Device size 20 half size, 20 full size GN



	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
20 half size	877	34 1/2	847	33 3/8	1807	71 1/8
20 full size	1082	42 5/8	1052	41 3/8	1807	71 1/8

	Depth overall dimension (mm)	Depth overall dimension (inch)	Overall height (mm)	Overall height (inch)
20 half size	912.5	35 7/8	1872	73 3/4
20 full size	1116.5	44	1872	73 3/4

3.2.2 Device weight

iCombi Pro Electric units

	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Weight without packaging (kg)	66	99	137	127	179	263	336
Weight without packaging (lbs)	145	218	302	279	394	579	740

iCombi Pro Gas devices

	6 half size	10 half size	6 full size	10 full size	20 half size	20 full size
Weight without packaging (kg)	117	155	144	192	284	379
Weight without packaging (lbs)	257	341	317	423	626	835

iCombi Classic Electric units

	XS	6 half size	10 half size	6 full size	10 full size	20 half size	20 full size
Weight without packaging (kg)	62	93	121	131	160	231	304
Weight without packaging (lbs)	137	205	266	288	352	509	670

iCombi Classic Gas devices

	6 half size	10 half size	6 full size	10 full size	20 half size	20 full size
Weight without packaging (kg)	101	139	128	184	276	371
Weight without packaging (lbs)	222	306	282	405	608	817

3.2.3 Thermal load

iCombi Pro Electric units

	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Thermal load latent (kJ/h)	1020	2050	3450	3450	6350	6850	10900
Thermal load sensitive (kJ/h)	1350	2523	4583	4583	7982	9115	14420

iCombi Pro Gas devices

	6 half size	10 half size	6 full size	10 full size	20 half size	20 full size
Thermal load latent (kJ/h)	2050	3450	3450	6350	6850	10900
Thermal load sensitive (kJ/h)	2523	4583	4583	7982	9115	14420

iCombi Classic Electric units

	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Thermal load latent (kJ/h)	1110	2050	3450	3450	6350	6850	10900
Thermal load sensitive (kJ/h)	1420	2450	4450	4450	7750	8850	14000

iCombi Classic Gas devices

	6 half size	10 half size	6 full size	10 full size	20 half size	20 full size
Thermal load latent (kJ/h)	2050	3450	3450	6350	6850	10900
Thermal load sensitive (kJ/h)	2450	4450	4450	7750	8850	14000

We reserve the right to implement technical developments and changes.

4 Transport

⚠ CAUTION

Risk of crushing due to the weight of the device

Hands and fingers may be crushed.

- Wear suitable protective clothing during transport.
- Use transport aids, e.g. lifting straps from the manufacturer.
- At least 3 people are required for the transport.

⚠ CAUTION

Risk of tipping during transport

Risk of crushing if the device tips over onto a person.

- Note the center of gravity of the device.
- Ensure that the device does not tip over during transport or lifting.

NOTE

Damage to the device due to narrow areas

Note the width and height of the accesses during transport.

Transport options

Unit size	XS	6 half size - 10 full size	20 half size - 20 full size
With transport pallet	✓	✓	✓
Without pallet with lift truck (only with transport aid)	✓	✓	✓
With lifting straps	-	✓	-

Transporting the unit

1. Remove the packaging material.
2. Transport the device to the installation site. Please observe the following descriptions.

4.1 Center of mass on the device

⚠ CAUTION

Risk of crushing and injury if the center of mass is not observed

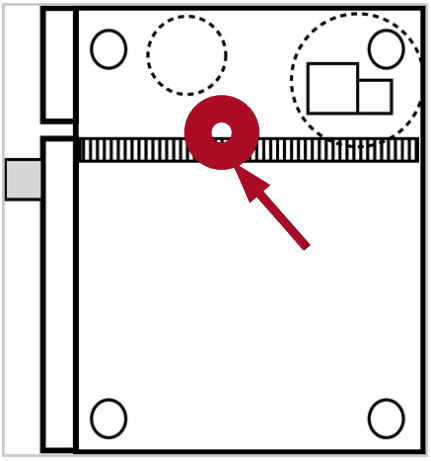
Failure to observe the center of mass can result in the device tipping over during lifting and transportation.

- Ensure that the weight of the device is distributed evenly.
- Note the center of gravity of the device.

NOTE

Device size XS GN: Damage to the device due to incorrect lifting

During transport, make sure that the air filter box and the USB port remain intact.



4.2 Transport with pallet

⚠ CAUTION

Inclined plane during transport using transport aid

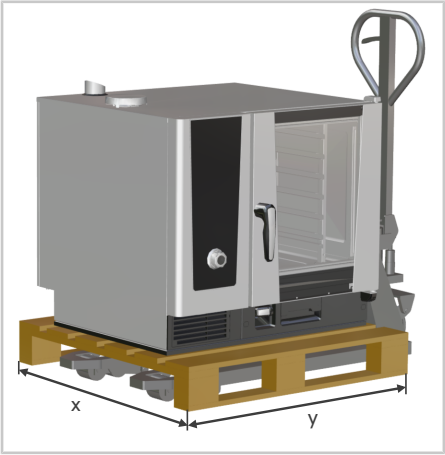
Risk of crushing and injury during transport using a transport aid over an incline or uneven floor.

- Do not run over an incline of more than 10°.
- Take care when transporting the device.

NOTE

Transport with transport aid without protection

Transport the device on the pallet for as long as possible. Do not transport the device with a transport aid or similar transport equipment without protection. Use a wooden board for protection, for example.



Required door width with transport pallet

Unit size	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
x (mm)	880	945	1150	945	1150	989	1194
x (inch)	34 5/8	37 1/4	45 1/4	37 1/4	45 1/4	38 7/8	47
y (mm)	930	935	1170	935	1170	969	1174
Y (inch)	36 5/8	36 3/4	46 1/8	36 3/4	46 1/8	38 1/8	46 1/4

Transport tabletop devices with transport pallet

- ✔ The packaging material is removed.
- ✔ The device is on the transport pallet.
- ✔ The device rests on the device base frame.

1. Transport the device to the installation site with the transport pallet.
2. Lift the device off the transport pallet on the lifting points or using the transport straps and set it down on the designated installation surface. Follow the description in these instructions for transporting using transport straps.

>> The device is on the designated installation surface and is ready for setup and installation.

Transport floor devices with transport pallet

Floor devices are delivered on a special, divisible transport pallet.

- ✔ The packaging material is removed.
- ✔ The device is on the transport pallet.
- ✔ The device feet are positioned in the foam rubber frame of the transport pallet.

1. Transport the device to the installation site with the transport pallet. During transport, look out for protruding components on the underside of the device.

>> The device is on the designated installation surface and is ready for setup and installation.

4.3 Transport without transport pallet with lift truck

NOTE

Transport without transport pallet with lift truck

Do not transport the device without protection with a lift truck. Use a wooden pallet or a wooden beam as protection, for example.

NOTE

Device size XS GN: Damage to the device due to incorrect lifting

During transport, make sure that the air filter box and the USB port remain intact.

Required door width without transport pallet

Unit size	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
x (mm)	630	845	1045	845	1045	925	1145
x (inch)	24 3/4	33 1/4	41 1/8	33 1/4	41 1/8	36 3/8	45 1/8

4.3.1 Transport tabletop devices without pallet with lift truck

- ✔ The packaging material is removed.
- ✔ The device rests on the device base frame.
- ✔ To avoid scratches on the underside of the device, provide protection against damage to the device.

1. Slide the seal upwards out of the groove in the base frame.

2. Place the protection from damage on the lift truck.
3. Use the lift truck to lift the device on the lifting points.
4. Transport the device onto the designated installation surface.
5. Push the seal back into the groove provided in the base frame.

>> The device is set down on the designated installation surface and is ready for setup.

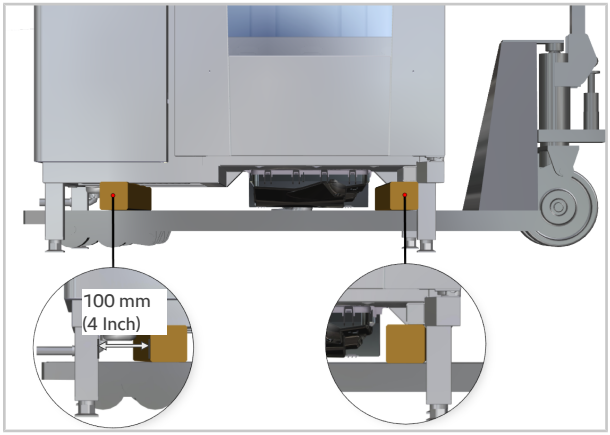
4.3.2 Transport floor devices without pallet with lift truck

- ✔ The packaging material is removed.
- ✔ The device is on the device feet.
- ✔ The transport aids are ready.
- ✔ The lift truck is in the lowest position.

1. Move with the lift truck from the left or right under the device. Make sure that the lift truck is in the lowest position.
2. Loosen the two screws holding the transport aids together and separate the transport aids.
3. Place the transport aids between the floor device and the lift truck. Look out for protruding components.

> The left transport aid must be approx. 100 mm [4 inch] next to the left foot of the device.

> The right transport aid must rest on the right foot of the device.



4. Lift the floor device using the lift truck.
5. Transport the device onto the designated installation surface.

>> The device is set down on the designated installation surface and is ready for setup.

4.4 Transport with lifting straps

Only transport device sizes 6 half size to 10 full size GN with lifting straps.

⚠ CAUTION

Risk of crushing and injury due to incorrect lifting with lifting straps

Hands, fingers or feet may be crushed.

- Observe the maximum load capacity indicated on the lifting straps. Lift the device only according to the maximum load capacity of the lifting straps.
- Only lift the device by hand using all four lifting straps. Do not use any mechanical aids for lifting.

NOTE

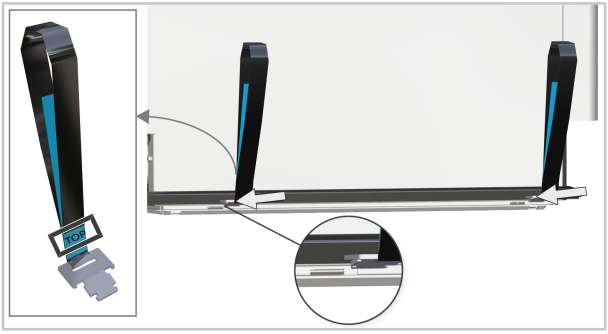
Risk of damage to the device

Only transport device sizes 6 half size to 10 full size GN with lifting straps from the manufacturer. The lifting straps are not included in the scope of delivery and must be ordered separately (article number 91.01.135).

✔ All side panels of the device are closed.

1. Slide the seal upwards out of the groove in the base frame.

2. Insert the lifting straps into the side slots on the sides of the device with the top facing upwards so that they engage. On each side of the device there are two side slots for lifting straps under the raised bottom seal. Observe the markings on the top of the lifting straps. Insert the lifting straps up to the mark on the metal buckle.



3. Pull on the lifting straps and check that the lifting straps are securely engaged.
4. Lift the device using the lifting straps. Observe the minimum number of persons required to lift and transport the device according to the weight of the device.
5. Transport the device using the lifting straps and place it on the designated installation surface.
6. Push the lifting strap buckles down and pull the lifting straps out of the side slots.
7. Push the seal back into the groove provided in the base frame.

>> The device is set down on the designated installation surface and is ready for setup and installation.

5 Setup

⚠ CAUTION

Risk of crushing during setup

Fingers, hands and feet may be crushed under the device.

- Wear suitable protective clothing during setup.
- Only lift the device via the designated lifting points.

NOTE

Device damage due to freezing

Ambient temperatures below freezing (frost) may cause damage to the device. Only install the device in frost-proof areas.

NOTE

Malfunction of the device due to moisture being drawn in

Moisture can be drawn into the air filter from steam sources near the air filter, causing the device to malfunction.

- Avoid steam sources near the air filter.

NOTE

Malfunction of the device due to blocked air filter

If the air filter is blocked, the device cannot draw in any air or, for gas devices, any combustion air.

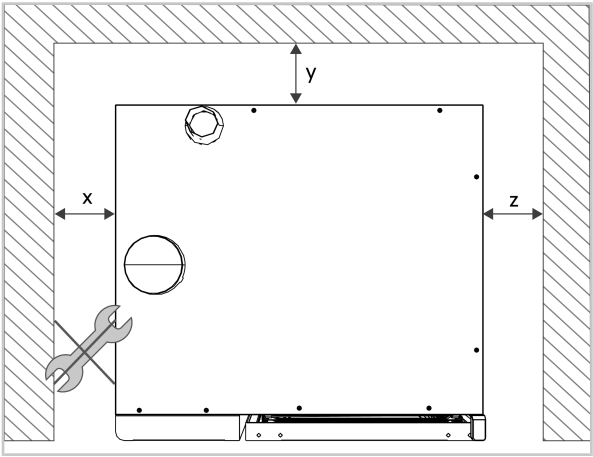
- Make sure that the grille of the air filter is not sealed or covered.

5.1 Minimum distance to the device

5.1.1 Distance from walls

Minimum distance to all sides

Set up the device taking into account the minimum distances to the wall. The distances depend on the device size, as shown in the table below.

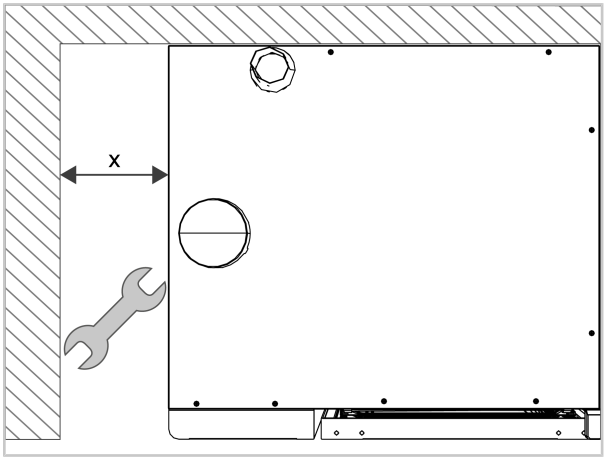


Unit size	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
x (mm)	10	50	50	50	50	500	500
x (inch)	1/2	2	2	2	2	20	20
y (mm)	10	0	0	0	0	0	0
y (inch)	1/2	0	0	0	0	0	0
z (mm)	10	50	50	50	50	50	50
z (inch)	1/2	2	2	2	2	2	2

Recommended distance to the left side of the device

To ensure that there is sufficient space on the left side of the device to carry out service work in the installation area, place the device on the left side at a recommended minimum distance from the wall.

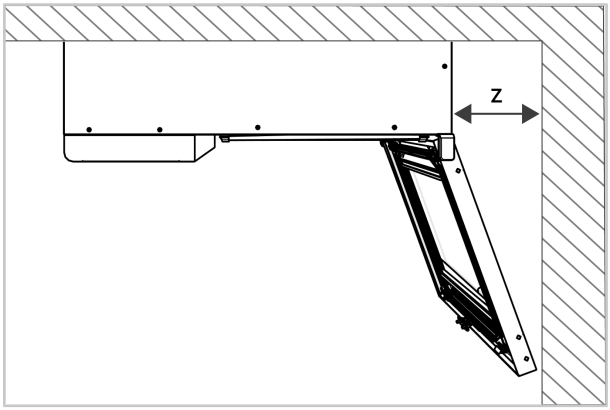
If this distance to the left side of the device is not possible, place the device so that it can be pulled out of the niche for maintenance work.



	Distance to the left side of the device
x (mm)	500
x (inch)	20

Recommended distance to the right side of the device

To open the device door at the first grid, place the device on the right with a recommended minimum distance to the wall. The distance depends on the device size, as shown in the table below.



Unit size	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
z (mm)	214	246	316	246	316	268	338
z (inch)	8 1/2	10	12 1/2	10	12 1/2	11	13

5.1.2 Distance from heat sources

NOTE

Minimum distance is not observed

To avoid damage to the unit or malfunctions, the unit should be set up with the specified minimum distance from heat sources or open flames.

NOTE

High ambient temperature next to the installation area (left side of the device)

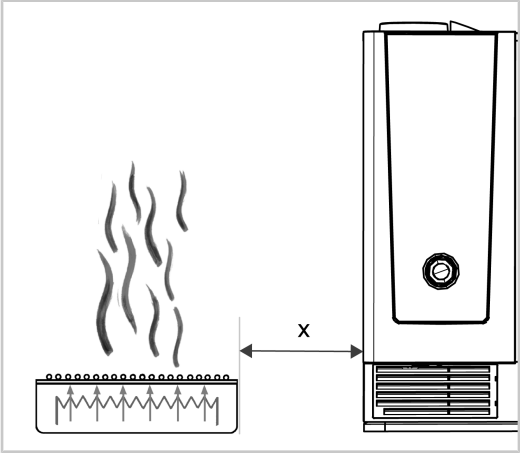
If the temperatures in the installation area on the left side of the device exceed 80°C [176°F], the heating system is switched off by an automatic safety switch-off.

NOTE

High ambient temperatures at the rear of the device

Do not place deep fryers or other heat sources at the rear of the device.

Set up the device with a minimum distance from heat sources on the left.



	Minimum distance to heat sources
x [mm]	350
x [inch]	14

Heat shield (optional)

If a sufficient distance to the heat source on the left cannot be maintained, an additional heat shield is available to reduce the thermal load.

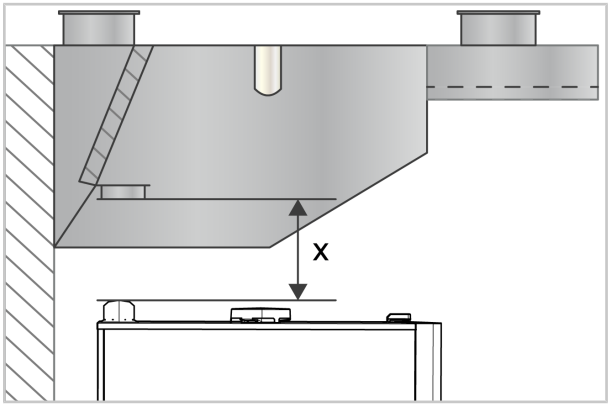
For the device sizes 6 half size GN and 10 half size GN, an additional heat shield is available for the right side.

Please note: The heat shield for the device sizes 6 half size GN to 20 full size GN is not suitable for Combi-Duo and UltraVent.

5.1.3 Distance to ceiling

Electric units

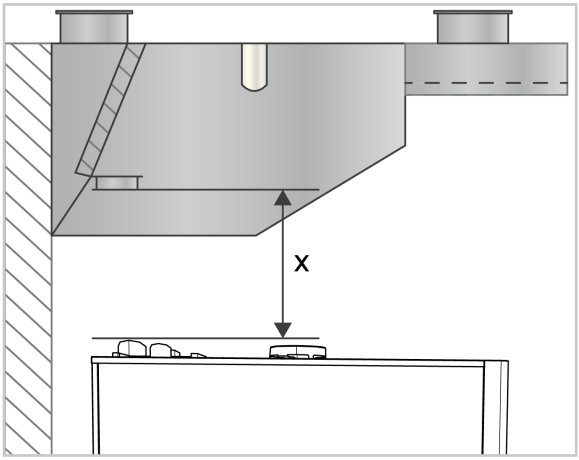
Install the electrical device with a minimum distance between the ventilation pipe of the device and the grease filters of the extraction hood/ventilation ceiling.



	Minimum distance from ceiling
x [mm]	254
x [inch]	10

Gas devices

Install the gas device with a minimum distance between the flue gas pipes of the device and the grease filters of the extractor hood/ventilation ceiling.

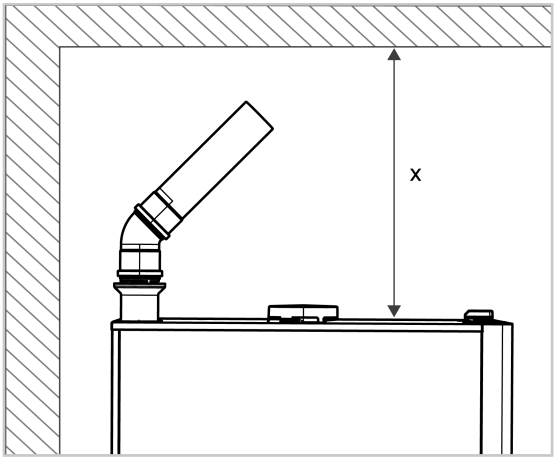


	Minimum distance from ceiling
x [mm]	400
x [inch]	16

Condensation breaker

If the steam from the ventilation pipe cannot be fed directly into an extractor hood or ventilation ceiling, there must be a minimum distance between the device and the ceiling.

This space is needed to install a condensation breaker that can be used to direct the flue gas air into uncritical areas.



	Minimum distance from ceiling
x [mm]	500
x [inch]	20

5.2 Installation of tabletop devices

⚠ WARNING

Device falls from the installation surface

Risk of crushing and injury if the device is tilted or turned.

- Do not tilt the device on the installation surface.
- When turning the device, ensure that the weight of the device is evenly distributed and that the device is positioned completely on the installation surface.

⚠ WARNING

Height adjustment by means of device feet or leveling frame

Danger of burns during operation when loaded on rack rails over 1600 mm [63 inch].

- Attach the enclosed safety sticker to the device.
- Inform the end user about the danger of the raised rack rails.

NOTE

Contamination of the device due to broken sealing tape

Sealing tape is attached to the underside of the device to seal it at the installation location. The sealing tape prevents dirt from getting under the device. When moving the device, make sure that the seal is not destroyed.

Requirements

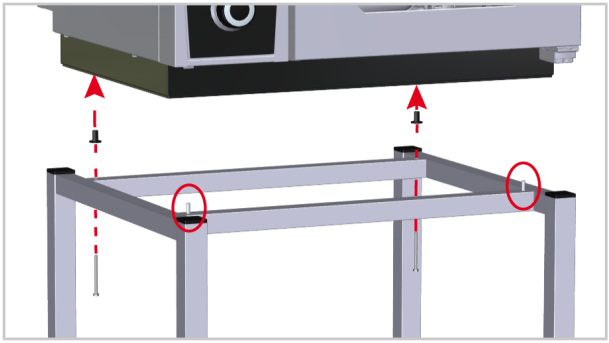
- When setting up the device on a stand or floor unit, ensure that only genuine stands or floor units from the device manufacturer are used.
- Only install the device on a horizontal surface. Any unevenness must not exceed 1 mm [0.04 inch] in relation to the device width.
- If the installation surface is not level, use a leveling frame to level the unevenness.
- The installation surface is free of grease and clean.

5.2.1 Install device size 6-2/3 GN on stand

✔ The installation surface is horizontal, free of grease and clean.

✔ There are two neoprene blind rivet nuts and two screws available for fastening.

1. Insert the two neoprene blind rivet nuts on the underside of the device into the rear holes.
2. Place the device on the stand. Make sure that the positioning pins of the stand engage in the front holes on the underside of the device.
3. Insert the two screws from below into the rear holes and tighten them.

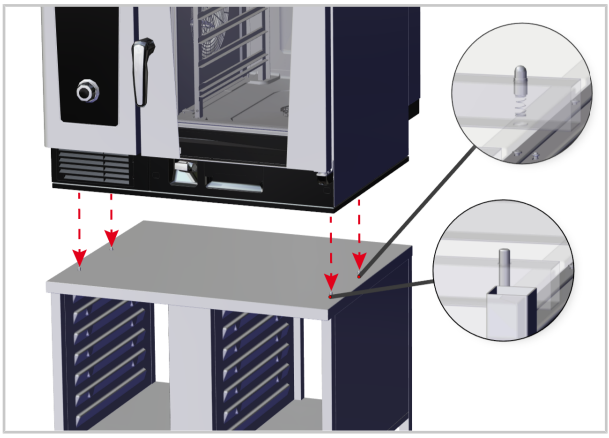


5.2.2 Install device sizes 6 half size to 10 full size GN on stand

✔ The installation surface is horizontal, free of grease and clean.

✔ Carrying aids, such as the lifting straps, are available.

1. Lift the device onto the stand, e.g. using the lifting straps.
2. Position the device using the spring pins.
3. Screw the device to the stand using two screws. The illustration shows schematically the position of the screwed-in screws in the stand. The screws are fastened with nuts welded into the device.



5.2.3 Align and fasten the stand horizontally

⚠ CAUTION

Slipping of the device at the installation position

Risk of crushing if the device slips.

Gas lines may be damaged in gas devices.

- Secure the device using the fixing set.

Non-mobile stand

Align stand horizontally

✔ The device is installed on the stand and is on the intended installation surface.

1. Place two spirit levels on the device: One spirit level along the right edge of the device and one spirit level along the front edge.
2. To align the device horizontally on the right, turn the stand feet on the front right and rear right.
3. To align the device horizontally on the left, turn the stand feet on the front left and rear left.

Fixing the stand

Secure the stand against slipping using the fixing set.

The fixing set, including special adhesive, screws and dowels, is not included in the scope of supply for the devices and can be ordered separately from the manufacturer under item number 8700.0317.

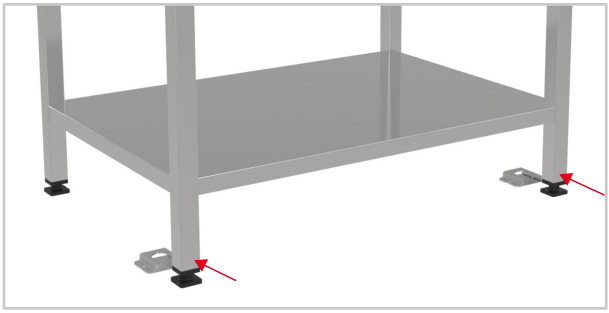
Observe the distances between the foot locks for the respective device sizes:

	6 half size - 10 half size	6 full size - 10 full size
x [mm]	755.5	977.5

	6 half size - 10 half size	6 full size - 10 full size
x [inch]	29 3/4	38 1/2

✔ The foot locks and the fixing set are available.

1. Secure the foot locks for the front feet to the floor with the special adhesive or screws and dowels. Make sure that both foot locks point forward with the openings.
2. Slide the stand into the foot locks.



Mobile stand

Align the mobile stand

To level out unevenness in the ground and align the mobile stand, proceed as follows:

1. Loosen the grub screw on the castors using an Allen key.
2. Adjust the height adjustment on the castors with a spanner until the castors are securely in position.
3. Tighten the grub screw on the castors using an Allen key.

Secure the mobile stand

NOTE

Damage to the power and gas supply due to moving

Also secure the device with a suitable retaining device against slipping on the rear wall (retaining device is not included in the scope of delivery).

5.3 Installation of floor devices

5.3.1 Install and align floor devices

Lift the floor device from the transport pallet and install

⚠ CAUTION

Danger of tipping during installation

Risk of crushing if the device tips over onto a person.

- Note the center of gravity of the device.
- Ensure that the device does not tip over when the pallet is set down.

⚠ CAUTION

Risk of injury due to the weight of the device

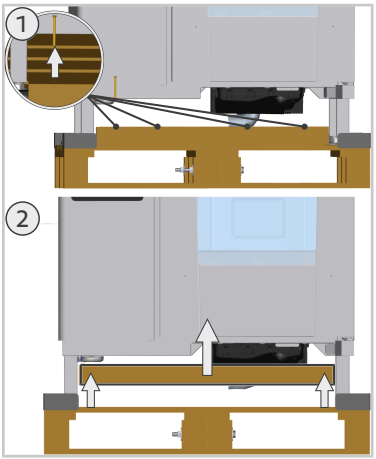
Personal injury and material damage caused by the device tipping over

- At least two people are required to install the device.

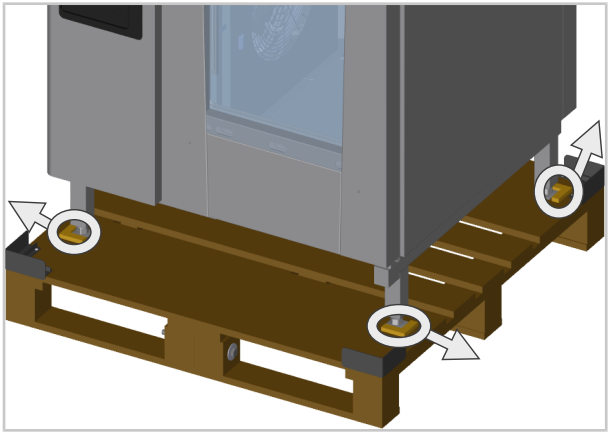
✔ The installation surface is horizontal, free of grease and clean.

✔ The transport aid is available.

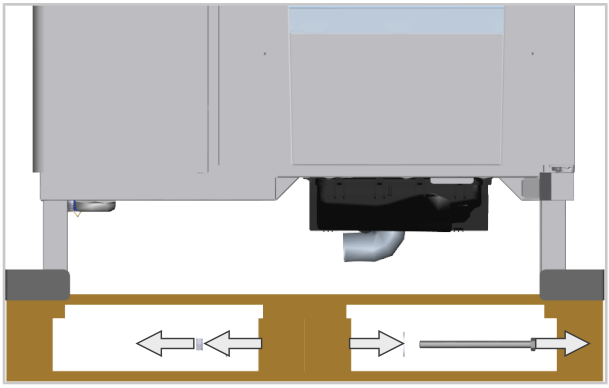
1. Open the screws connecting the transport pallet to the transport aid. Place the screwed transport aid to the right of the transport pallet.



2. Remove the foam rubber next to the device feet from the transport pallet.

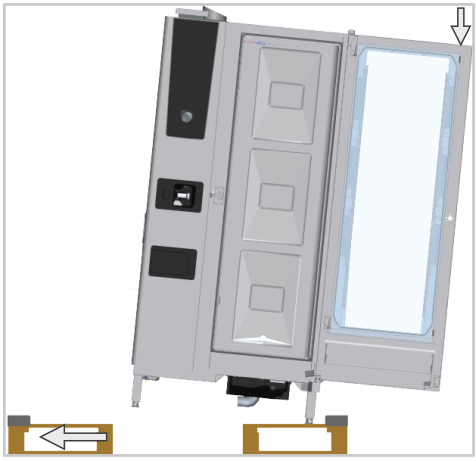


3. Open the screws with nut on the divided transport pallet.

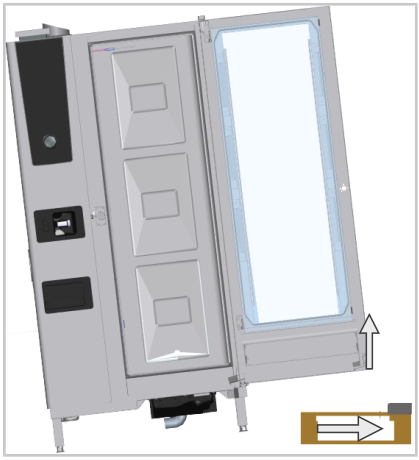


4. Open the cooking cabinet door.

5. Pull the floor device downwards by the cooking cabinet door. Remove the part of the pallet under the electrical compartment.



6. Install the device with the rear feet on the installation surface.
7. Carefully lift the device by the cooking cabinet door and pull out the pallet under the device.



8. Set down the device with the front device feet on the installation surface.

Align the floor device

✔ The device is installed and is on the intended installation surface.

1. Place a spirit level in the cooking cabinet of the device.
2. To align the device horizontally on the right, turn the device feet on the front right and rear right.

3. To align the device horizontally on the left, turn the device feet on the front left and rear left.

5.3.2 Secure floor device

⚠ CAUTION

Slipping of the device at the installation position

Risk of crushing if the device slips.

Gas lines may be damaged in gas devices.

- Secure the device using the fixing set.

Secure the floor device against slipping using the fixing set.

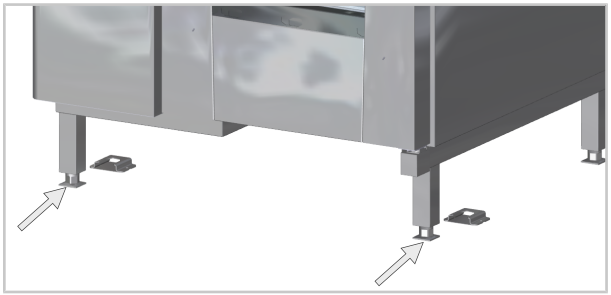
The fixing set, including special adhesive, screws and dowels, is not included in the scope of supply for the devices and can be ordered separately from the manufacturer under item number 8700.0317.

Observe the distances between the foot locks for the respective device sizes:

	20 half size	20 full size
x [mm]	741	946
x [inch]	29 1/8	37 1/4

✔ The foot locks and the fixing set are available.

1. Secure the foot locks for the front feet to the floor with the special adhesive or screws and dowels. Make sure that both foot locks point forward with the openings.
2. Slide the floor device into the foot locks.



5.3.3 Align support rack trolley

⚠ WARNING

The maximum approach angle of the entry ramp is exceeded

Risk of burns due to hot liquid and food being cooked at too steep an approach angle.

Make sure that the approach angle of the entry ramp is less than 4 degrees.

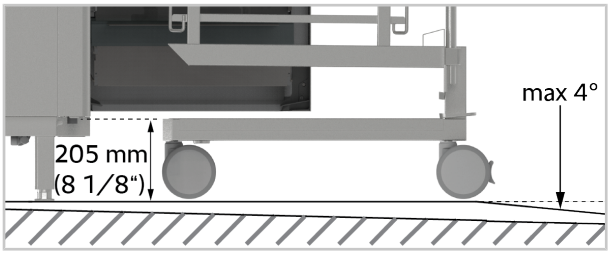
NOTE

Malfunction due to inclined support rack trolley

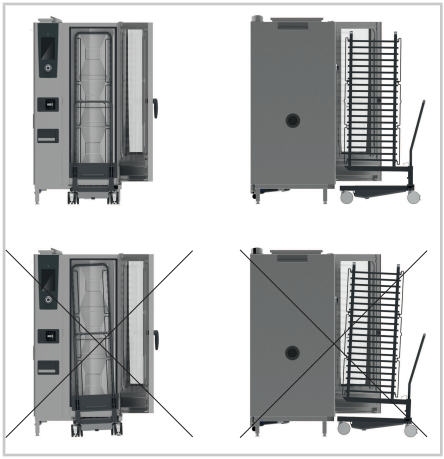
An incorrectly aligned support rack trolley can lead to malfunctions in the device function, for example during cleaning.

Align the support rack trolley horizontally in the device.

1. Set a distance of 205 mm [8 1/8 inch] between the upper edge of the entry frame and the floor using the feet on the support rack trolley. The distance is required so that the support rack trolley can move correctly into the device.



2. Check that the support rack trolley enters the device straight. If this is not the case, use an entry ramp or drive-over aids.



Entry ramp and drive-over aid

- If the ground is not level, the unevenness must be compensated by an entry ramp.

- If there is a drain grille in front of the floor device, install a drive-over aid in the entry area of the support rack trolley.

Storage of the handle

The included holder provides safe storage of the handle for the support rack trolley during cooking.

1. Attach the handle holder to the top of the device so that the holder faces the left side panel.
2. Hang the handle in the holder.

5.4 Fixing the device in place

⚠ CAUTION

Slipping of the device at the installation position

Risk of crushing due to shifting or slipping of the devices.

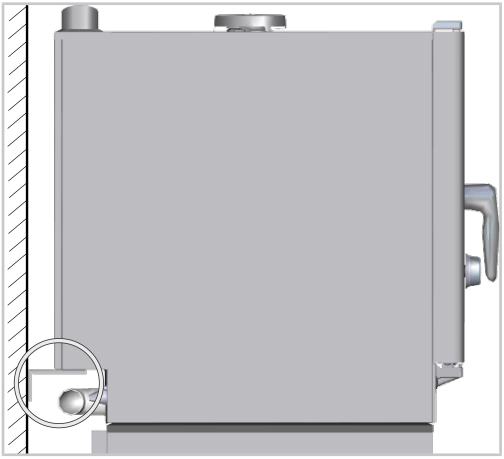
Gas lines may be damaged in gas devices.

- Secure the device using the fixing set.
- Also secure the device with a suitable retaining device against slipping on the rear wall (retaining device is not included in the scope of delivery).

Fixing

Secure devices against slipping with optional expansions (e.g. Marine, Combi-Duo). The fixing set must be expanded with suitable retaining devices.

If present, use the supplied retaining devices (e.g. bracket for wall fixing).



5.5 Notes on the extractor hood

⚠ DANGER

Harmful exhaust flue gases

Risk of suffocation due to high concentration of harmful flue gases (Carbon Monoxide).

- Make sure that there is sufficient ventilation in the installation area.
- Carry out a flue gas analysis during commissioning of the device.
- Only for Japan:
  The device must be installed under an exhaust hood.

Local ventilation

Observe the following instructions when installing an extractor hood:

- VDI Guideline 2052, NFPA 96 and the guidelines of the local building commission for extractor hoods.
- The extractor hood must extend 300-500 mm [12 – 20 inch] beyond the front of the unit.
- When using a VarioSmoker, install the device under an externally ventilated extractor hood.
- Install a grease filter in the overhanging area of the extractor hood.

Recirculating hood

An extractor hood (also for retrofitting) is available for the units. To install the extractor hood, follow the installation instructions supplied with the extractor hood.

6 Electrical connection

⚠ DANGER

High voltages during connection to the power grid

Danger to life when working with high voltage.

- Disconnect the connection from the power supply.
- Ensure that the unit is de-energized.

⚠ DANGER

Electric shock due to incorrect connection

There is a danger to life if the cable conductors are connected incorrectly.

Connect the wires correctly according to their color coding.

⚠ CAUTION

Risk of injury due to incorrect installation

Use an all-pole disconnecting device accessible on-site with a contact distance of at least 3 mm [0.12 inch].

NOTE

Supply voltage does not correspond to the device voltage

Before connecting, check that the supply voltage corresponds to the required voltage on the type plate of the device.

6.1 Regulations for the electrical connection

- Observe the VDE regulations and the regulations of the local power supplier.
- Connect the device in accordance with the valid regulations in your country, state, city or municipality.
- Connect the device to a standardized power grid.
- The power consumption, fuses and cable cross-sections depend on the following factors:
  - Local regulations
  - Cable length
  - Cable quality
  - Power supply
- Adapt the connected loads to the local conditions and requirements for a correct power connection.

- Observe the NFPA 70/NEC and CSA C22.2 regulations.
- Only use power cables in accordance with NEC/NEMA regulations.

Color coding of the conductors

Observe the color coding of the conductors and country-specific deviations.

Color of the conductor	Function of the conductor
Yellow/green	Protective conductor
Blue	Neutral conductor (neutral)
Brown, gray or black	Phase L1, L2, L3

RCD fault-current circuit breaker

All devices are installed with a protective conductor terminal. It may also be necessary to include a RCD fault-current circuit breaker when installing the device to comply with country-specific standards and regulations.

Device size 6 half size GN to 20 full size GN

Connect the device to a fault-current circuit breaker in accordance with the table Connected loads of different voltage types [▷ 58].

Device size XS GN

Voltage waveforms with neutral conductor ("NAC"): Connect the device to a fault-current circuit breaker in accordance with the table Connected loads of different voltage types [▷ 58].

Voltage waveforms without neutral conductor ("AC"): Connect the device to a fault-current circuit breaker in accordance with the table Connected loads of different voltage types [▷ 58].

Notes on floor devices

- The maximum output impedance on the grid connection point is 0.09 Ω.
- The cross-sections of the connection cables are based on the power consumption and local regulations.

Notes on UltraVent/UltraVent Plus condensation hood

For devices with a condensation hood, disconnect both device from the power supply before servicing.

Before disconnecting the power cord from the power supply or reconnecting the device, make sure that the device is switched off to prevent the condensation hood from starting up.

Notes on XS GN devices with a UltraVent/UltraVent Plus condensation hood

- The condensation hood must be connected to a standardized power supply network in accordance with the applicable regulations (VDE and UL/CSA NEC regulations).

- The condensation hood is connected to the power supply via a fixed connection. The fixed connection must be accessible on-site with an all-pole disconnecting device with a contact distance of at least 3 mm [1/8 inch].
- If the condensation hood is connected with a power cable, the power cable must always be accessible.
- The condensation hood must be fused with a maximum of 15 A on-site.
- The condensation hood is equipped with an approx. 2 m [approx. 6 1/2 foot] connection cable without a plug.
- If the connection cable is replaced, use at least one cable of quality H05 RN-F 3x1.5 mm (14AWG SJO)[2]. The replacement may only be carried out by the manufacturer or by technicians authorized and trained by the manufacturer.
- Before unplugging the power cord or reconnecting to the power supply, make sure that the device is switched off to prevent the condensation hood from starting up.

Notes on devices with the uninterruptible power supply (UPS) option

With the UPS device option, electronic components can be connected to a stable power supply. With this option, a second connection cable for the electronic components is routed out of the device. When carrying out service work on the device, disconnect both voltage sources from the mains.

6.2 Opening the electrical compartment

The electrical compartment is located behind the left side panel.

✔ The device is positioned on the designated installation surface.

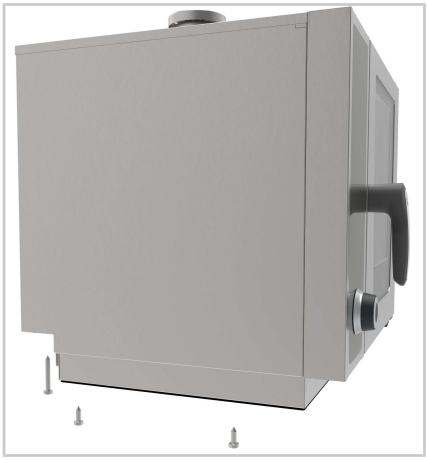
✔ The device is switched off.

✔ All voltage sources are switched off via an external circuit breaker.

1. Open the electrical compartment as described below for the respective device size.

Device size XS GN

1. Loosen two screws on the bottom of the left side wall and one screw on the back.

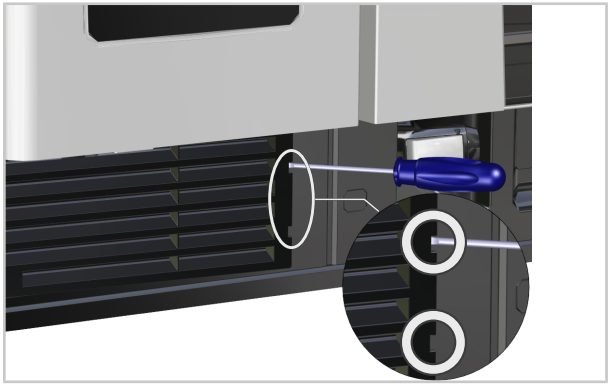


2. Lift the left side wall from below and pull the side wall downwards away from the device.

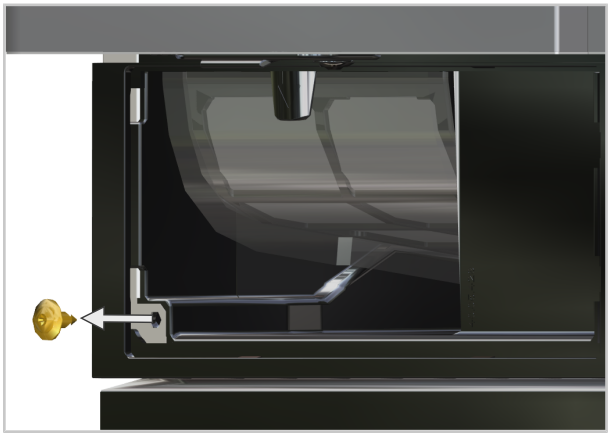
>> The electrical compartment is open.

Device size 6 half size GN to 10 full size GN

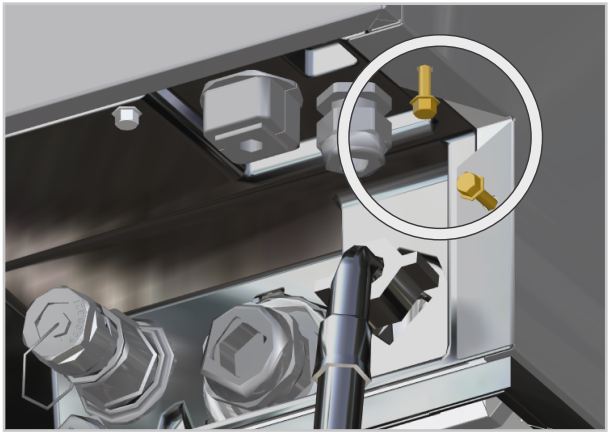
1. Use a screwdriver to leverage out the grille below the control panel.



2. Unscrew the blind rivets in the lower left corner.



3. Loosen two screws in the recess of the rear side wall of the device.

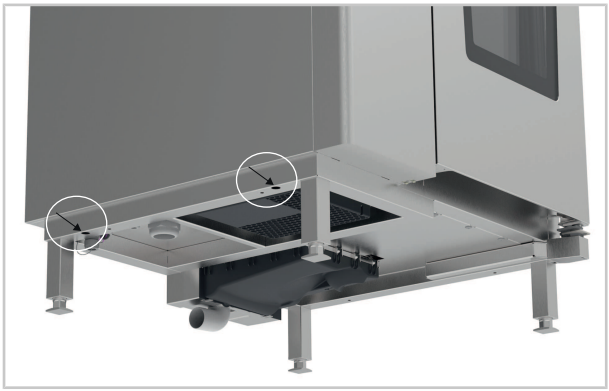


4. Pull the left side panel downwards away from the device.
5. Remove the side panel.

>> The electrical compartment is open.

Device size 20 half size GN, 20 full size GN

1. Loosen two screws on the underside of the side panel in recess of frame.



2. Lift the left side wall from below and pull the side wall downwards away from the device.

>> The electrical compartment is open.

6.3 Connecting the electrical devices to the power grid

Notes on the power cable and connection point

- There is a fixed connection for the electrical connection of the device.
- Devices with a 3 NAC 400 V connection voltage can be connected via a fixed connection (conduit connection) or connection with a safety switch.
- You have your own supply cable on hand for the device.
- The devices are supplied without a power cable.
- Device size XS GN: The device is delivered with a power cable.
- The connection point of the power cable is on the main contactor in the electrical compartment behind the removable left side wall.

Making the connection on the table device

✔ Device size XS GN: For the installation, there is an all-pole disconnecting device with a contact distance of at least 3 mm [0.12 inch].

✔ A type B fault-current circuit breaker is recommended.

✔ A type A fault-current circuit breaker can be used for device size XS GN.

✔ The strain relief for the power cable is tightened.

✔ The electrical compartment is open.

1. Feed the power cable through the opening on the rear side into the electrical compartment to the connection point.
2. Connect the wires to the terminals. Observe the following color coding.
3. Check that the conductors are connected correctly.

>> The device is connected to the power grid.

Making the connection on the floor device

- ✔ A type B fault-current circuit breaker is recommended.
- ✔ The strain relief for the power cable is tightened.
- ✔ The electrical compartment is open.

1. Feed the power cable through the opening on the underside into the electrical compartment to the connection point.
2. Pull the cable gland tight in the opening.
3. Open the terminals with the relevant tool and connect the conductors. Observe the following color coding.
4. Check that the conductors are connected correctly.

>> The device is connected to the power grid.

Color coding terminals

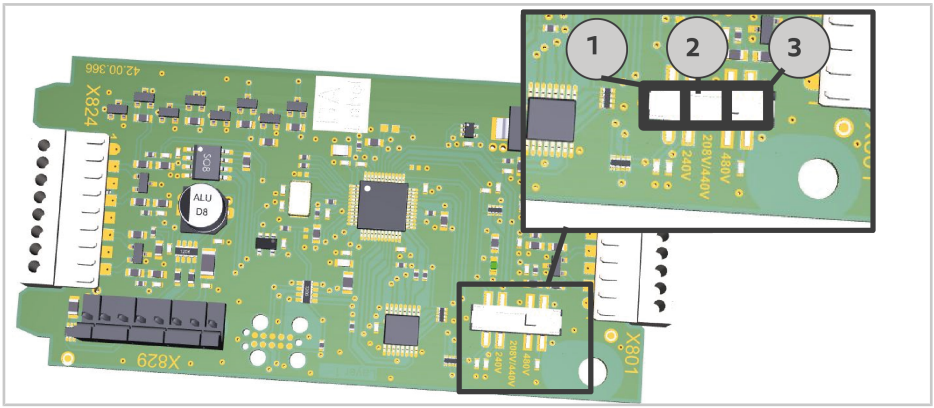
Connection	Conductor color	Terminals	Tool (only floor devices)
Phase (independent of rotating field)	Grey, Black or Orange	L1, L2, L3	Hex key
Neutral conductor	Blue	N	Slotted screwdriver
Protective conductor	Yellow-green	PE	Hex socket (Torx)

6.4 Switching the power supply (USA and Canada only)

- ✔ The device is switched off.
- ✔ All voltage sources are switched off via an external circuit breaker.
- ✔ The electrical compartment is open.

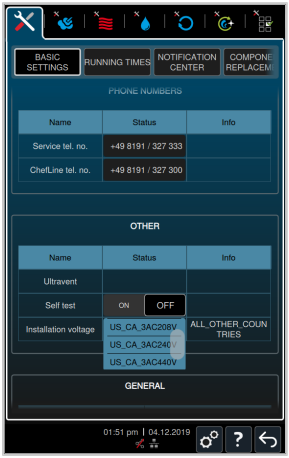
1. Check the supply voltage at the connection.

2. Set the voltage at the switch in accordance with the power supply. In its base position, the switch is in Position 2:



Position	Voltage (V)
1	240
2	208/440
3	480

1. Close the electrical compartment.
2. Connect the unit to mains power.
3. Switch the unit on.
4. Use the control panel to select the service level. Navigate to Basic Settings - Other - Installation Voltage. Set the voltage.



5. Switch the unit off and on again. The changes will now be applied.
6. Run a performance check. Verify that the performance data matches the information on the identification plate.

>> The voltage is now successfully switched.

6.5 Conduit connection (USA and Canada only)

The conduit connection kit for installing tabletop devices is not included in the scope of delivery of the devices and must be ordered separately.

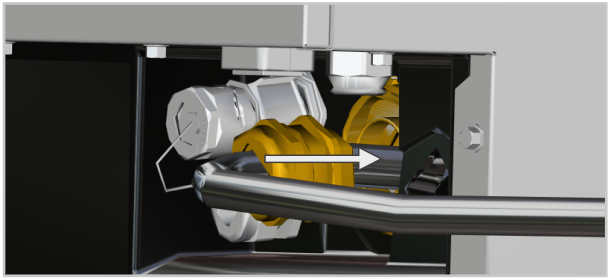
The conduit connection is required for devices with the following voltage variants. Refer to the following table for the diameters of the conduit connection kits:

Voltage variant	6 half size	10 half size	6 full size	10 full size
11 - 3 AC240V 60 Hz	3/4 inch	1 inch	1 inch	1 1/4 inch
12 - 3 AC208V 60 Hz				
19 - 2 AC208V 60 Hz	1 inch			
42 - 3 AC440V 60 Hz	1/2 inch	3/4 inch	3/4 inch	1 inch
43 - 3 AC480V 60 Hz	1/2 inch	3/4 inch	3/4 inch	1 inch

6.5.1 Making conduit connection

- ✔ The device is switched off.
- ✔ All voltage sources are switched off via an external circuit breaker.
- ✔ The corresponding pipe adapter is loosely attached to the wires (the pipe adapter is not included in the scope of delivery).
- ✔ The wires are inserted into the cable. The lock nut and the seals for the outside of the device are loosely attached to the cable.

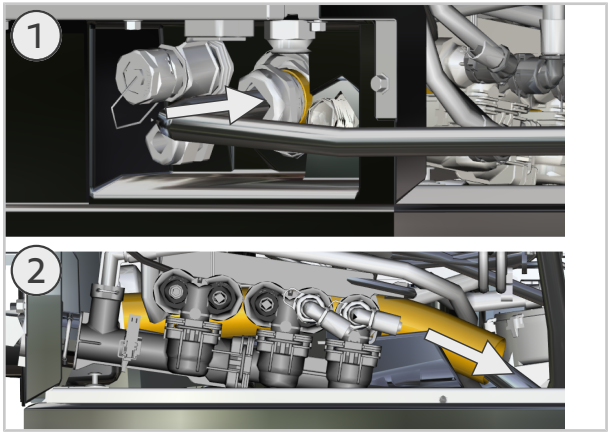
1. Mount the corresponding pipe adapter to the electrical connection on the rear wall of the device.



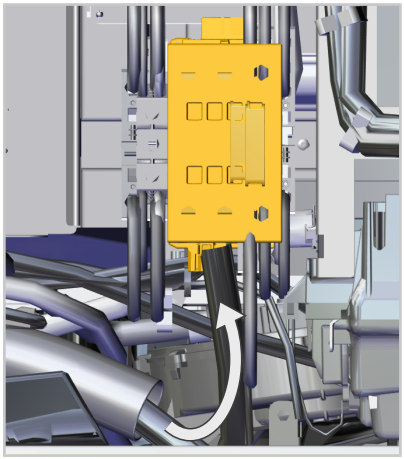
2. Open the left side wall.

> The electrical compartment is open.

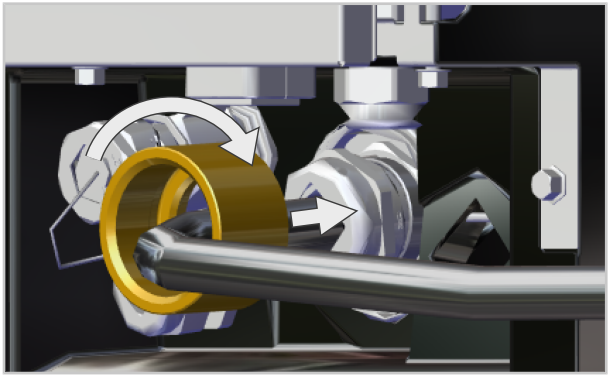
3. Guide the wires through the connection pipe.



4. Connect the wires to the main contactor.



5. Mount the seals and the lock nut on the pipe adapter via the cable.



6. Close the left side wall.

>> The installation of the conduit connection is completed on the device.

6.6 Connecting the gas devices to the power grid

NOTE

Incorrect polarity at the electrical connection

Observe the polarity of the electrical connection. If the polarity is incorrect, an error message appears. The device is not functioning.

Notes on the power cable and connection point

- It is recommended by the manufacturer to use a separate fused supply line for each device.
- For the electrical connection of the devices, either a fixed connection or a connection with a plug can be provided.
- You have your own supply cable on hand for the device.
- The devices are supplied with a power cable without a plug.
- For gas devices, the connection point of the power cable is located on the flat pins of the integrated mains filter in the electrical compartment.

Carrying out the connection

✔ A type B fault-current circuit breaker is recommended.

✔ The strain relief for the power cable is tightened.

✔ The electrical compartment is open.

1. Connect the wires to the flat pins. Observe the following color coding.
2. Check that the conductors are connected correctly.

>> The device is connected to the power grid.

Color coding of the flat pins

Connection	Conductor color	Flat pin
Phase	Brown, black or gray	L1
Neutral conductor	Blue	N
Protective conductor	Yellow-green	PE

6.7 Closing the electrical compartment

NOTE

Trapped cable

When closing the electrical compartment, ensure that no cables or hoses are pinched or trapped.

Device size XS GN

1. Insert the left side panel under the top frame of the housing.
2. Push the side panel upward.
3. Tighten two screws on the bottom of the side wall and one screw on the back.

>> The electrical compartment is closed.

Device size 6 half size GN to 10 full size GN

1. Insert the left side panel under the top frame of the housing.
2. Push the side panel upward.
3. Push the side wall inwards in the lower area.

> The front edge is behind the plastic part and the rear sheet edge is placed over the grounding plate.

4. Tighten two screws on the back of the device.
5. Turn the blind rivets on the front in the lower left corner and tighten.
6. Insert the grille and press it firmly.
7. Check that the floor seal is fitted correctly.

>> The electrical compartment is closed.

Device size 20 half size GN - 20 full size GN

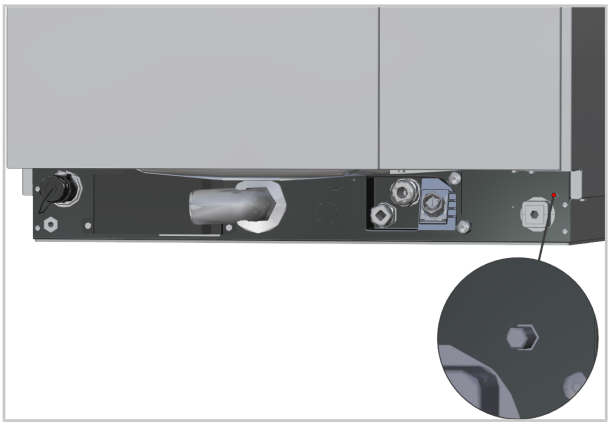
1. Insert the left side panel under the top frame of the housing.
2. Push the side panel upward.
3. Tighten two screws on the underside of the side wall.

>> The electrical compartment is closed.

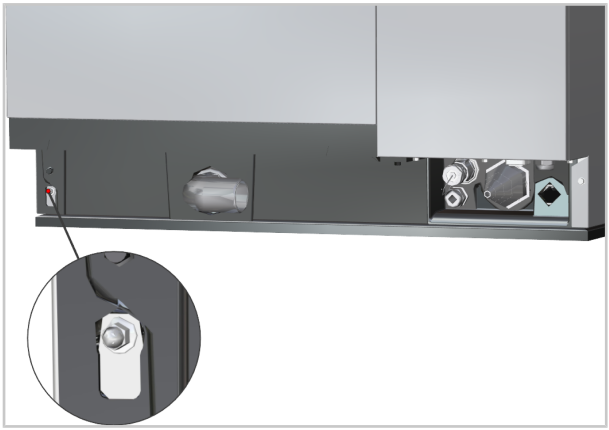
6.8 Connecting the equipotential bonding

The connection for equipotential bonding is located on the bottom or rear of the devices.

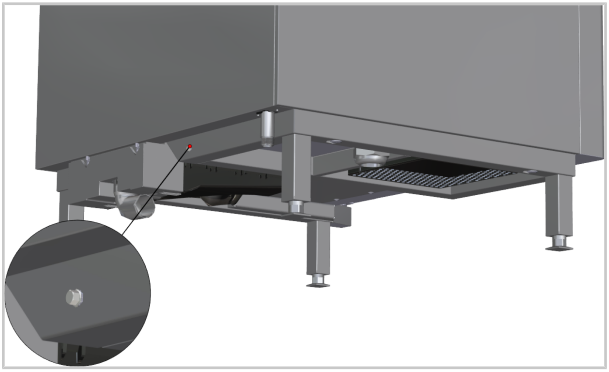
Device size XS GN



Device size 6 half size GN to 10 full size GN



Device size 20 half size GN, 20 full size GN



6.9 Connected loads of different voltage types

Maximum connection voltage

- Maximum permissible tolerance for the input voltage: -15% to +10%
- The device can be used with frequencies of 50 Hz and 60 Hz without technical modifications.

iCombi Pro, iCombi Classic Electric units

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (2 AC 208 V)	60	27.4	5.7	40	B
6 half size E (2 AC 208 V)	60	51.9	10.8	60	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (2 AC 240 V)	50/60	24	5.7	40	B
6 half size E (2 AC 240 V)	50/60	45	10.8	60	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (3 AC 208 V)	60	15.9	5.7	20	B
6 half size E (3 AC 208 V)	60	30	10.8	35	B
6 full size E (3 AC 208 V)	60	62.2	22.4	70	B
10 half size E (3 AC 208 V)	60	52.5	18.9	60	B
10 full size E (3 AC 208 V)	60	103.8	37.4	125	B
20 half size E (3 AC 208 V)	60	103.3	37.2	125	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
20 full size E (3 AC 208 V)	60	188.5	67.9	200	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size E (3 AC 440 V)	60	14.2	10.8	20	B
6 full size E (3 AC 440 V)	60	29.4	22.4	35	B
10 half size E (3 AC 440 V)	60	24.8	18.9	30	B
10 full size E (3 AC 440 V)	60	49.1	37.4	60	B
20 half size E (3 AC 440 V)	60	48.8	37.2	60	B
20 full size E (3 AC 440 V)	60	89.1	67.9	100	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size E (3 AC 480 V)	60	13	10.8	20	B
6 full size E (3 AC 480 V)	60	26.9	22.4	35	B
10 half size E (3 AC 480 V)	60	22.7	18.9	30	B
10 full size E (3 AC 480 V)	60	45	37.4	60	B
20 half size E (3 AC 480 V)	60	44.7	37.2	60	B
20 full size E (3 AC 480 V)	60	81.7	67.9	100	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (2 AC 208 V)	60	27.4	5.7	40	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (2 AC 240 V)	50/60	24	5.7	40	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (3 AC 208 V)	60	15.9	5.7	20	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 (3 AC 240 V)	50/60	15.5	6.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-2/3 E (3 AC 240 V)	60	15.5	5.7	20	B
6 half size E (3 AC 240 V)	60	26	10.8	35	B
6 full size E (3 AC 240 V)	60	53.9	22.4	70	B
10 half size E (3 AC 240 V)	60	45.5	18.9	60	B
10 full size E (3 AC 240 V)	60	90	37.4	125	B
20 half size E (3 AC 240 V)	60	89.5	37.2	125	B
20 full size E (3 AC 240 V)	60	163.3	67.9	200	B

iCombi Pro, iCombi Classic Gas devices

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 100 V)	50/60	3.8	0.38	16	F
10 half size G (1 NAC 100 V)	50/60	7.5	0.75	16	B
20 half size G (1 NAC 100 V)	50/60	12	1.2	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 110 V)	50/60	5.5	0.6	16	F
10 half size G (1 NAC 110 V)	50/60	8.3	0.9	16	B
20 half size G (1 NAC 110 V)	50/60	11.8	1.3	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 120 V)	60	5.0	0.6	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
10 half size G (1 NAC 120 V)	60	7.5	0.9	16	B
20 half size G (1 NAC 120 V)	60	10.8	1.3	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 127 V)	50/60	4.7	0.6	16	F
10 half size G (1 NAC 127 V)	50/60	7.1	0.9	16	B
20 half size G (1 NAC 127 V)	50/60	10.2	1.3	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 230 V)	50/60	2.6	0.6	16	F
6 full size G (1 NAC 230 V)	50/60	3.9	0.9	16	B
10 half size G (1 NAC 230 V)	50/60	3.9	0.9	16	B
10 full size G (1 NAC 230 V)	50/60	6.5	1.5	16	B
20 half size G (1 NAC 230 V)	50/60	5.7	1.3	16	F
20 full size G (1 NAC 230 V)	50/60	9.6	2.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (1 NAC 240 V)	50/60	2.5	0.6	16	F
6 full size G (1 NAC 240 V)	50/60	3.8	0.9	16	B
10 half size G (1 NAC 240 V)	50/60	3.8	0.9	16	B
10 full size G (1 NAC 240 V)	50/60	6.3	1.5	16	B
20 half size G (1 NAC 240 V)	50/60	5.4	1.3	16	F

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
20 full size G (1 NAC 240 V)	50/60	9.2	2.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (2 AC 200 V)	50/60	1.9	0.38	16	B
6 full size G (2 AC 200 V)	50/60	3.3	0.65	16	B
10 half size G (2 AC 200 V)	50/60	3.8	0.75	16	B
10 full size G (2 AC 200 V)	50/60	6.3	1.25	16	B
20 half size G (2 AC 200 V)	50/60	6.0	1.2	16	B
20 full size G (2 AC 200 V)	50/60	9.5	1.9	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (2 AC 208 V)	60	2.9	0.6	16	B
6 full size G (2 AC 208 V)	60	4.3	0.9	16	B
10 half size G (2 AC 208 V)	60	4.3	0.9	16	B
10 full size G (2 AC 208 V)	60	7.2	1.5	16	B
20 half size G (2 AC 208 V)	60	6.3	1.3	16	B
20 full size G (2 AC 208 V)	60	10.6	2.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (2 AC 220 V)	50/60	2.7	0.6	16	B
6 full size G (2 AC 220 V)	50/60	4.1	0.9	15	B
10 half size G (2 AC 220 V)	50/60	4.1	0.9	16	B
10 full size G (2 AC 220 V)	50/60	6.8	1.5	16	B
20 half size G (2 AC 220 V)	50/60	5.9	1.3	16	B
20 full size G (2 AC 220 V)	50/60	10	2.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (2 AC 230 V)	50/60	2.6	0.6	16	B
6 full size G (2 AC 230 V)	50/60	3.9	0.9	16	B
10 half size G (2 AC 230 V)	50/60	3.9	0.9	16	B
10 full size G (2 AC 230 V)	50/60	6.5	1.5	16	B
20 half size G (2 AC 230 V)	50/60	5.7	1.3	16	B
20 full size G (2 AC 230 V)	50/60	9.6	2.2	16	B

	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6 half size G (2 AC 240 V)	50/60	2.5	0.6	16	B
6 full size G (2 AC 240 V)	50/60	3.8	0.9	16	B
10 half size G (2 AC 240 V)	50/60	3.8	0.9	16	B
10 full size G (2 AC 240 V)	50/60	6.3	1.5	16	B
20 half size G (2 AC 240 V)	50/60	5.4	1.3	16	B
20 full size G (2 AC 240 V)	50/60	9.2	2.2	16	B

7 Network connection

*this chapter does not apply for USA and Canada.

7.1 Notes on the network connection

Via the network connection, you can connect the device to your network in order to connect the device to ConnectedCooking.

Ethernet connection (Local Area Network)

iCombi Pro:

- The devices are equipped with an Ethernet connection as standard.
- To connect to a network, use at least one network cable with the CAT-5 specification.
- For device sizes XS GN to 10 full size GN, the connection is located on the rear of the device.
- For device sizes 20 half size GN and 20 full size GN, the connection is located on the underside of the device.
- A detailed description of the connection to the network can be found in the original operating manual.

iCombi Classic:

The devices may be ordered or retrofitted with an optional Ethernet connection.

The retrofit kit is available under item number 87.01.420.

WLAN (Wireless Local Area Network)

The WLAN adapter integrated in the device is a market-dependent option that is not available in every country.

- The devices from the iCombi Pro series are equipped with a WLAN adapter as standard.
- A WLAN adapter is optionally available for devices from the iCombi Classic series.

7.2 Connecting the device to the network

Connecting the Ethernet cable

1. Unscrew the LAN connection.
2. Unscrew the cap.
3. Remove the sealing plug.
4. Push the Ethernet cable through the union nut.
5. Push the Ethernet cable through the rubber grommet.
6. Push the rubber grommet back into the clamp ring.
7. Connect the Ethernet cable to the connector.
8. Screw on the connection.

9. Tighten the cap.

>> The Ethernet cable is connected.

8 Water connection

8.1 Regulations for water connection

NOTE

Malfunction due to falling below the minimum conductivity value

Make sure that the minimum conductivity of the water is 50 µS/cm [32 ppm TDS].

The device complies with current regulations (SVGW, KIWA, WRAS).

Observe the country-specific standards and regulations for connection to the drinking water network, including for hygiene requirements.

Water pipe

- Use a separate tap for each device on-site.
- The water pipe used must at least meet the requirements of IEC 61770, EN 61770, EN 13618 or equivalent quality.
- Do not use used water hoses.
- A water hose as per EN 61770 is available from the manufacturer under item number 2067.0709. The materials used for this water pipe comply with the KTW, WRAS and FDA regulations. An adapter on the water hose is required for USA and Canada.

Drinking water protection

Drinking water protection in accordance with EN 1717 requirements is required for connection to the drinking water network.

- For device size XS GN from the iCombi Classic series, drinking water protection for material class 3 as per EN 1717 must be installed in the inlet pipe of the water tap for connection to the drinking water network, e.g. a CA system separator as per EN 14367. The CA system separator is included in the scope of delivery in the Netherlands, Switzerland and Japan. For other countries in Europe, the CA system separator is available under item number 50.01.820.
- All other devices comply with the requirements for drinking water protection as per EN 1717 when delivered.

Water pressure

- The water pressure (flow pressure) in the supply line is 1.5 – 6 bar (21 – 87 psi).
- A water pressure of 3 bar (43 psi) is recommended.

Required flow rate per device

Unit size	XS	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Max. flow rate [l/min]	5	12	12	12	12	12	12
Max. flow rate [gal/min]	1.32	3.17	3.17	3.17	3.17	3.17	3.17

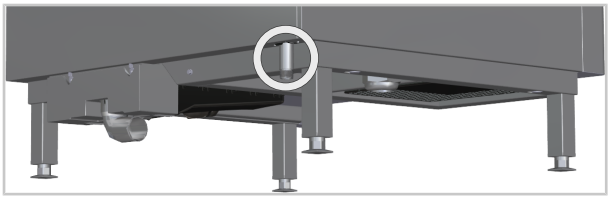
8.2 Connecting the water inlet

The water inlet is located on the back or underside of the device.

Device size XS GN

Device size 6 half size GN to 10 full size GN

Device size 20 half size GN, 20 full size GN



- ✔ The on-site water supply line is flushed and vented.
- ✔ The water hose is flushed.
- ✔ Safety devices, such as check valves or CA system separators are installed in the feed line on the tap.
- ✔ Line for shared cold water connection: 3/4 inch
- ✔ Cold water temperature: max. 30°C [86°F]
- ✔ Water hardness: min. 5°dH (90 ppm).
- ✔ Conductivity: min. 50 µS
- ✔ The chlorination (Cl_2) is below 0.2 mg/l (0.2 ppm) and the chloride concentration (Cl^-) below 80 mg/l (80 ppm). If the values are higher, use a water filter. Follow the instructions for selecting the water filter.

1. Connect the water hose to the water inlet for the device.

2. Open the tap.

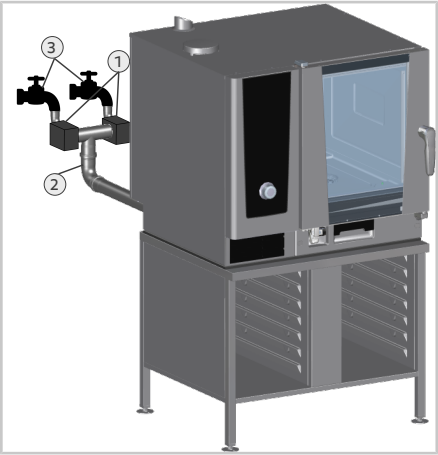
>> The water inlet is connected.

Recommendation for CombiMaster Plus without care

The manufacturer recommends a preventive check approx. 6 months after commissioning to determine the current limescale build-up in the steam generator. The inspection should be carried out by a trained technician.

Recommendation for two on-site water connections

The connection of two on-site water connections (Pos. 3: drinking water and/or soft water) on the device is possible.



Feed the connections to the device together via Y- or T-piece (Pos. 2) (connection size: 3/4 inch). Connect a check valve between each water tap and the Y- or T-piece (Pos. 1).

8.3 Notes on water treatment

If the water quality is not suitable for the device, water treatment is required. Observe the following notes:

- Treated water with a hardness of less than 5 °dH can have an aggressive and corrosive effect (rust) and shorten the service life of the device. Do not use treated water with a hardness of less than 5 °dH.
- Observe the country-specific regulations regarding water and wastewater connections, in particular also regarding the installation of water extraction points.
- Check the chloride concentration (Cl^-), chlorination (Cl_2), conductivity and water hardness with your local water supplier.
- When connecting the iCombi Pro to water with less than 7 °dH: When the self test is started, a query is made as to which water hardness the device is connected to. In this case, select the point water hardness below 7 °dH.

- A water connection without additional filters and water treatment is possible in most cases.
- If critical water conditions prevail, filtration and/or water treatment is necessary.

8.4 Selection of the water filter

If critical water conditions prevail, filtration and/or water treatment is necessary. Observe the following notes when making your selection:

(A) Fine filter

If the water is contaminated by sand, iron particles or suspended particles, we recommend fine particle filters with 5 – 15 µm [0.0002 – 0.0006 inch] filter size.

(B) Activated carbon filter

In the case of strong chlorination (Cl_2) of the water above 0.2 mg/l (corresponds to 0.2 ppm), an activated carbon filter must be installed upstream. Information on the chlorination (Cl_2) can be obtained from the local water supply company.

(C) Reverse osmosis system

If the chloride concentration (Cl^-) is above 80 mg/l [80 ppm], a reverse osmosis system must be installed due to the risk of corrosion. Information about the chloride concentration (Cl^-) can be obtained from the local water supply company.

NOTE

Malfunction due to falling below the minimum conductivity value

Make sure that the minimum conductivity of the water is 50 µS/cm [32 ppm TDS].

(D) Water softening

iCombi Pro / iCombi Classic

When used according to instructions, iCombi Pro / iCombi Classic devices remove the limescale themselves. Upstream water softening for scale is not necessary.

CombiMaster Plus without care

- Water softening is recommended for water treatment in the event of very strong calcification (without chloride contamination).
- Set a weakly acidic decarbonization via a hydrogen ion exchanger (H^+). Sodium ion exchangers (salt water) (as are common in dishwashers) are not recommended.
- Phosphate dosing is not recommended because of its negative effect on the water system.

Notes on connecting the water filter

The diameter of the water hose must be at least 1/2 inch ID, to the water filter at least 3/4 inch ID.

When using a combination of water filters, observe the order of the filters in the flow direction:

- (A)-(B)-(C)

  Or

- (A)-(B)-(D)

9 Waste water connection

9.1 Regulations for the wastewater connection

General notes on all devices

NOTE

Drain pipe does not comply with the regulations

Use a steam temperature resistant drain pipe that at least corresponds to a pipe of type PP. Do not use a hose.

NOTE

Incorrect installation of the drain pipe

Do not glue or weld the drain pipe on to the drain of the device.

Do not connect the drain pipe to the device drain with a reducer.

NOTE

Never seal or pipe the safety overflow

Do not reduce the cross-section of the safety overflow.

The safety overflow but be accessible and clear at all times. It is used for ventilation and as a drain in the event of blockages.

NOTE

Contaminated wastewater and wastewater containing grease

Ensure that a grease separator is installed on-site to treat the wastewater.

- The device complies with the current valid regulations (SVGW, KIWA, WRAS).
- The average wastewater temperature is 65°C [149°F].
- When dimensioning the discharge, note that the steam generator's pumping rate is 0.5 l/s [0.13 gal/s] for short intervals.
- If there is a floor drain without an P trap or odor seal, there must be a free outlet distance of 20 mm [0.79 inch].
- Each device size can be connected to a wall drain or floor drain.

Requirements for device size XS GN

In order to achieve optimum energy consumption, it is recommended to integrate a siphon into the wastewater connection.

- Diameter of the device outlet: DN 40 mm [1.5 inch]

- The device drain DN 40/50 is enclosed with the device. The device drain DN 40/50 is also available separately from the manufacturer under item number 8720.1031.
- Each device must have its own wastewater connection.

Requirements for device sizes 6 half size GN to 20 full size GN

NOTE

Overflow of the device due to external siphon

The device is already equipped with an integrated siphon. A second, external siphon without ventilation of the drain section causes the device to overflow.

No external siphon may be connected to the wastewater connection without upstream ventilation.

Make sure that there is a free outflow zone or vent at the wastewater connection.

- Diameter of the device outlet: DN 50 mm [2 inch]
- A connection set for the device drain DN 40/50 is available from the manufacturer under item number 8720.1031.
- Tabletop devices: Each device must have its own wastewater connection.

Additional requirements for Combi-Duo

In addition to the requirements for the individual devices, note the following for a Combi-Duo setup:

- A separate wastewater connection must be used for each device.
- For the Combi-Duo with a floor drain, there must be no siphon installed at the drain.

Options

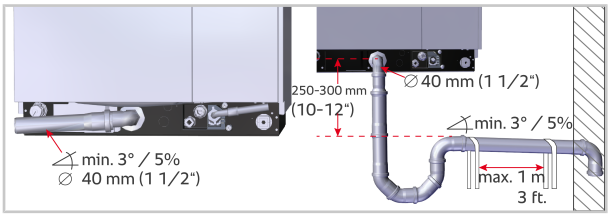
- Install a riser pipe on the drain pipe to reduce pressure on the drain pipe.
- Tabletop devices: A 110 mm [4.33 inch] device extension and a height-adjustable transport trolley for support rack trolleys are available to increase ground clearance.
- Floor devices: A device extension and extension for the support rack trolley are available to increase the ground clearance.

9.2 Connecting the wastewater drain

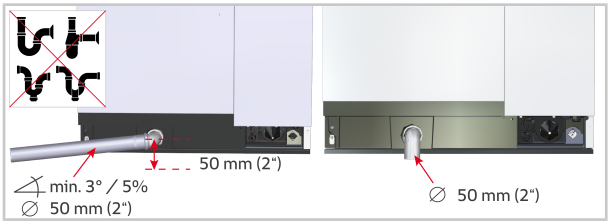
✔ The drain pipe is resistant to steam temperature.

1. Connect the drain pipe DN 50 mm [2 inch] (for device size XS : DN 40 mm [1.5 inch]) with a constant gradient of at least 5 % or 3° (1.4 inch/foot). Use a 90° elbow as the first pipe piece for the drain pipe.
2. Align the drain pipe to the side, straight or leading downwards.

Device size XS GN

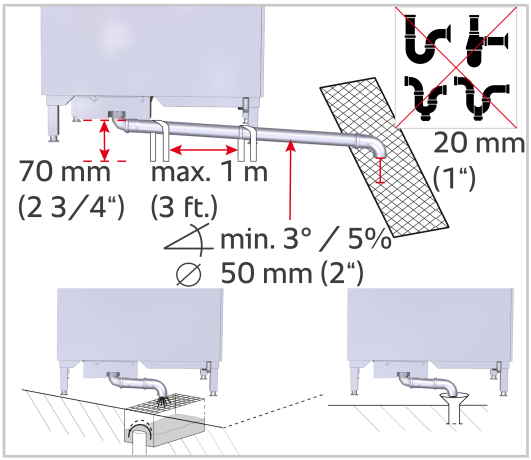


Device size 6 half size GN to 10 full size GN



The average height of the wastewater connection for tabletop devices is approx. 50 mm [1.57 inch].

Device size 20 half size GN, 20 full size GN



The average height of the wastewater connection is 70 mm [2.76 inch].

9.3 Additional ventilation of the drain section (optional)

NOTE

Overflow of the device due to external siphon

The device is already equipped with an integrated siphon. A second, external siphon without ventilation of the drain section causes the device to overflow.

No external siphon may be connected to the wastewater connection without upstream ventilation.

Make sure that there is a free outflow zone or vent at the wastewater connection.

NOTE

Regular cleaning of the funnel

The funnel on the ventilation pipe must be cleaned at regular intervals. The funnel must be removed from the ventilation pipe for cleaning.

NOTE

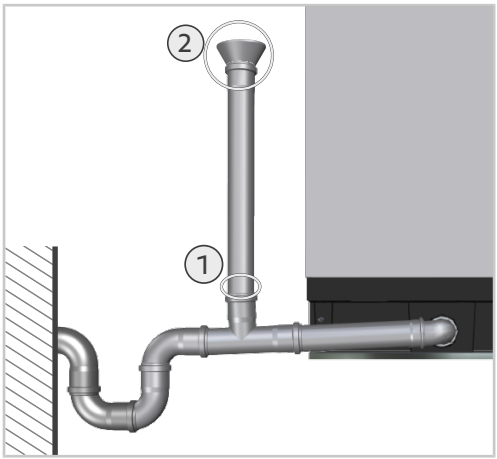
Odor formation due to unused ventilation line

Odor formation may occur if a ventilation pipe is installed for safety due to an unknown waste water line. This occurs when no external siphon is installed in the wall.

- The ventilation pipe is not required.
- Remove the ventilation line with the ventilation pipe.
- Connect the waste water line according to the specifications.

If an external siphon is connected, the device requires additional ventilation of the drain section via a vent pipe which is attached to the drain pipe and prevents the device from overflowing. This vent pipe is provided with holes (1) in the lower area to achieve a suction effect.

The ventilation pipe must be fitted with a funnel (item number: 60.76.798) (2). The funnel destroys any occurring foam during cleaning and prevents the ventilation pipe from overflowing.



Cleaning the funnel

⚠ CAUTION

Risk of scalding when cleaning with liquid

There is a risk of scalding when cleaning with hot water.

- Clean the funnel carefully with hot water.
- Wear protective clothing when cleaning.

✔ The device is switched off.

✔ The funnel must be removed from the device for cleaning.

1. Clean the funnel with hot water.
2. Mount the cleaned funnel on the ventilation pipe.

>> The funnel is cleaned and mounted. The device can be started up again.

10 Gas connection for gas devices

This chapter only applies to gas devices.

⚠ DANGER

Fire due to incorrect gas connection

Risk of death due to fire caused by incorrect gas connection.

- Observe the local regulations of the gas supply company.
- Check the existing gas type and the dynamic connection pressure with the values indicated on the device.

⚠ DANGER

Exceeding the permissible CO/CO_2 values

Risk of poisoning due to increased CO/CO_2 values caused by incorrect burner settings.

- Perform a flue gas analysis during initial commissioning.
- Document the flue gas values.
- It is recommended that the installation site be equipped with a CO gas detector.

⚠ DANGER

Increased CO values due to incorrect gas type

Risk of poisoning due to connecting the wrong type of gas

- Only connect the device to the gas type specified on the device's type plate.
- Check the existing gas type and the dynamic connection pressure with the values indicated on the device.
- It is recommended that the installation site be equipped with a CO gas detector.

10.1 Gas connection regulations

NOTE

Exceeding the connection flow pressure

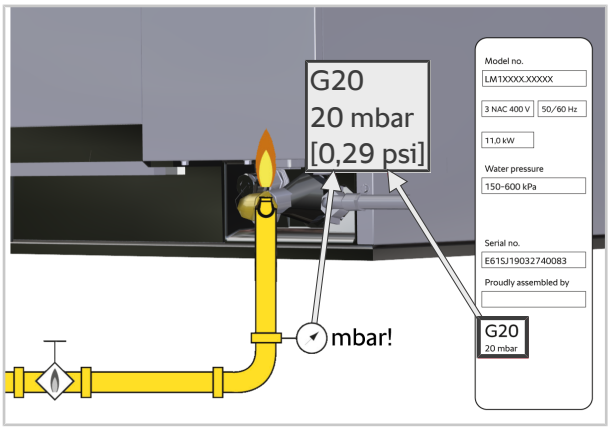
A connection flow pressure above 65 mbar [0.94 psi 26"w.c.] leads to a malfunction of the device and damage of gas components.

- For natural gas, maintain the maximum connection flow pressure of 30 mbar [0.44 psi].

- For liquid gas, maintain the maximum connection flow pressure of 58 mbar [0.84 psi].
- Observe the maximum connection flow pressure of 65 mbar [0.94 psi].
- If the pressure is higher, turn off the gas supply to the device and do not carry out any commissioning.
- Only USA and Canada: National Fuel Gas Code, ANSI Z223.1/NFPA 54 and the Natural Gas and Propane Installation Code, CSA B149.1

Requirements for gas type and gas pressure

- Check that the ex-works gas setting on the device matches the actual conditions for the local gas connection.
- The gas type and the dynamic connection pressure set in the device must match the specifications on the type plate.



- If the line pressure deviates from the connection flow pressure of the device, contact your gas supply company.
- Observe the regulations of the local gas supply company.

Requirements for gas supply and gas lines

- The flue gas analysis may only be carried out by a technician authorized by the manufacturer. The flue gas analysis must be carried out before commissioning.
- The gas connection may only be carried out by a locally approved gas installer.
- The gas connection line must be designed for the nominal heat load specified on the type plate.
- The gas supply and gas distribution in the device must be checked for leaks using a suitable gas leak detector.
- The cross-section of the gas line must be designed for the maximum connected power of all consumers, at least ¾ inch.

- A gas shut-off valve must be installed upstream of each device.
- All on-site connection parts must be tested in accordance with DIN-DVGW (the local gas supply companies).
- The gas line can be connected to a gas socket.
- A connection with internal thread is required to connect the gas line.
- The device must be secured against slipping.
- For values of undiluted CO greater than 174.7 mg/m³ [150 ppm] for hot air and greater than 465.8 mg/m³ [400 ppm] for steam, the burner setting must be checked by a company-trained and certified technician in accordance with the setting instructions, and reset if necessary. Subsequently, a flue gas analysis must be carried out by the technician.
- Observe the maintenance instructions for gas components.
- The gas installation must comply with CGA-B 149.1 natural gas regulations or CGA-B 149.2 propane gas regulations.

Gas installation Australia

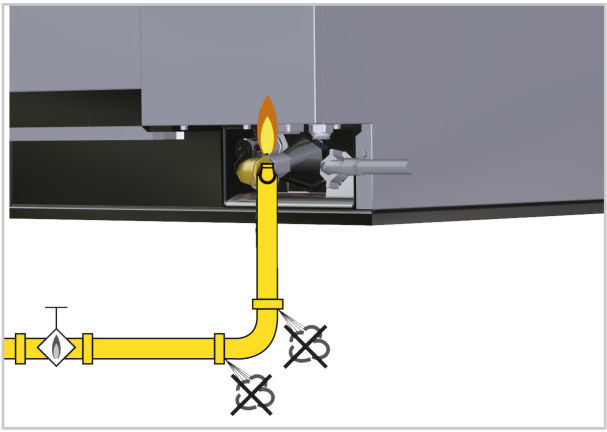
- The installation may only be carried out by authorized personnel in accordance with AS/NZS 5601, local authorities, gas, electricity, all applicable legal regulations and manufacturer requirements.
- The relevant requirements for ventilation must be observed.
- This device is not suitable for use in marine environments.

10.2 Connecting the device to the gas supply

- ✔ The width of the gas pipe is at least ¾ inch according to local regulations.
- ✔ A connection with internal thread is provided for connecting the gas line. An additional Teflon tape for sealing in the thread is available.
- ✔ A gas shut-off valve is provided on-site.
- ✔ The gas type available and the dynamic connection pressure match the values on the device type plate.
- ✔ The device is secured against slipping.

1. Connect the gas pipe to the device gas connection.

2. Use a suitable gas leak detector to check the gas supply and gas distribution on the device for leaks.



10.3 Gas consumption by gas type

Natural gas EK G25.3 Netherlands

	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Required connection flow pressure (mbar)	20-30	20-30	20-30	20-30	20-30	20-30
Wobbe index (MJ/m^3) Wi	38.49	38.49	38.49	38.49	38.49	38.49
Wobbe index (MJ/m^3) Ws	42.71	42.71	42.71	42.71	42.71	42.71
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	1.56 m^3/h	3.37 m^3/h	2.65 m^3/h	4.81 m^3/h	5.05 m^3/h	9.63 m^3/h
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	13 kW	28 kW	22 kW	40 kW	42 kW	80 kW

Natural gas G20 USA

	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Required connection flow pressure (mbar)	6.5-10.0 in/wc	6.5-10.0 in/wc	6.5-10.0 in/wc	6.5-10.0 in/wc	6.5-10.0 in/wc	6.5-10.0 in/wc
Wobbe index (MJ/m^3) Wi	45.67	45.67	45.67	45.67	45.67	45.67

	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Wobbe index (MJ/m^3) Ws	50.72	50.72	50.72	50.72	50.72	50.72
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	48.58 ft^3/h	104.64 ft^3/h	82.21 ft^3/h	149.48 ft^3/h	156.96 ft^3/h	298.96 ft^3/h
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	49500 BTU/hr	106500 BTU/hr	83500 BTU/hr	152000 BTU/hr	159500 BTU/hr	303500 BTU/hr

Propane gas 3P G31 USA

	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Required connection flow pressure (mbar)	10-15 in/wc	10-15 in/wc	10-15 in/wc	10-15 in/wc	10-15 in/wc	10-15 in/wc
Wobbe index (MJ/m^3) Wi	74.75	74.75	74.75	74.75	74.75	74.75
Wobbe index (MJ/m^3) Ws	81.19	81.19	81.19	81.19	81.19	81.19
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	2.23 lb/h	4.80 lb/h	3.77 lb/h	6.85 lb/h	7.19 lb/h	13.7 lb/h
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	48500 BTU/hr	104000 BTU/hr	82000 BTU/hr	148500 BTU/hr	156000 BTU/hr	296500 BTU/hr

11 Flue gas connection for gas devices

This chapter only applies to gas devices.

⚠ DANGER

Harmful exhaust flue gases

Risk of suffocation due to high concentration of harmful flue gases (Carbon Monoxide).

- Make sure that there is sufficient ventilation in the installation area.
- Carry out a flue gas analysis during commissioning of the device.
- Only for Japan:
  The device must be installed under an exhaust hood.

11.1 Regulations for flue gas connection

- The devices are classified as per DVGW G631 from 03/2012 as flue gas types A3 and B23, B13, B13BS. Observe the regulations for the respective types.
- For installation, observe the local standards in their respective valid version.
- The flue gas connection must comply with the regulations of NFPA 96.
- Observe the maintenance instructions for gas components.

Flue gas and room volume

The following values only apply to the individual device:

	6 half size	6 full size	10 half size	10 full size	20 half size	20 full size
Min. room size with constant ventilation (m^3)	26	56	44	80	88	-
Min. room size with free ventilation (m^3)	52	112	88	160	176	-
Min. combustion air supply (m^3/h)	21	45	35	64	70	128
Min. combustion air supply (ft^3/h)	742	1590	1236	2260	2472	4521
Max. flue gas volume (m^3/h)	38	108	78	160	150	311
Max. flue gas volume (ft^3/h)	1342	3814	2755	5651	5298	10983
Max. flue gas temperature (°C)	350	520	470	590	430	520
Max. flue gas temperature (°F)	662	968	878	1094	806	968

*Combustion air supply through ventilation and air conditioning systems

Combustion air supply

The combustion air supply is ensured by free ventilation or constant ventilation, one near the ceiling, one near the floor.

Free ventilation

The combustion air supply is ensured via windows and doors.

Constant ventilation

The combustion air supply is ensured via two ventilation openings into the open air, each with a free cross-section of 150 m^3 [9153561.62 in^3] (one near the ceiling, one near the floor).

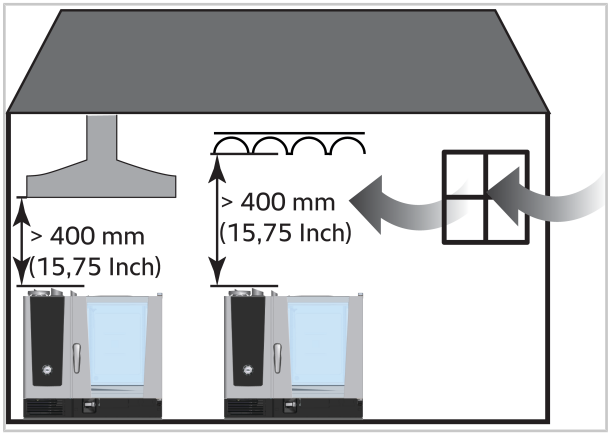
Ventilation and air conditioning systems

Kitchens in which gas devices with a total nominal heat load of more than 50 kW are installed must be ventilated with ventilation and air conditioning systems. These ventilation and air conditioning systems also ensure the combustion air supply for the gas device if the ventilation and air conditioning system is designed in accordance with VDI 2052.

11.2 Flue gas connection type A3 and B23

Requirements for device size 6 half size GN

- The flue gas connection type A3 for this device size corresponds to a room air-dependent gas fireplace with a fan upstream of the burners without flow protection and with a total nominal load in the installation area of less than or equal to 14 kW.
- To avoid a fire hazard due to grease in the grease filter, a distance of 400 mm [15.75 inch] must be maintained between the flue gas pipes of the device and the grease filters of the extractor hood/ventilation ceiling.

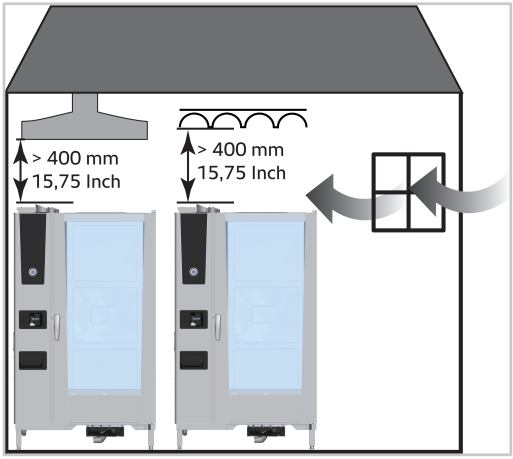


- It is not mandatory that the gas supply to the burners is only released when the extraction system is in operation.

- An up-current socket is not required.
- For the installation of gas device with a type A flue gas connection with a total rated load of less than or equal to 14 kW, it is sufficient if the installation site meets one of the following criteria:
  - The installation area has a volume of more than 2 m^3/kW [70.63 ft^3/kW].
  - The installation area has a door to the outside or a window that can be opened.
  - A kitchen ventilation system is operated which has a minimum delivery volume of 15 m^3/h [529.72 ft^3/h] per kW total rated load and corresponding supply air openings are provided.

Requirements for device sizes 6 full size GN to 20 full size GN

- The flue gas connection type B23 for these device sizes corresponds to a room air-dependent gas fireplace with a fan upstream of the burners without flow protection and with a total nominal load in the installation area greater than 14 kW.
- To avoid a fire hazard due to grease in the grease filter, a distance of 400 mm [15.75 inch] must be maintained between the flue gas pipes of the device and the grease filters of the extractor hood/ventilation ceiling.



- An up-current socket is not required.
- The flue gases must be discharged into the open air via kitchen ventilation systems. The flue gases from the gas device with type A flue gas connection are first discharged into the room and promptly discharged via kitchen ventilation systems.
- By monitoring the flue gas discharge, it must be ensured that the gas supply to the burners is only released if extraction is ensured.

12 Initial start-up

⚠ WARNING

Danger of scalding due to hot steam

Hot steam is generated during operation and cleaning of the device. You can be scalded by the hot steam when opening the cooking cabinet door.

- Open the cooking cabinet door carefully and leave the door leaned for a few seconds so that the steam can escape upwards.
- Make sure that there are no persons in the area of the steam outlet.

12.1 Before commissioning

Removing transport materials from the cooking cabinet

⚠ CAUTION

Combustible materials and objects in the cooking cabinet

Fire hazard due to packaging and transport materials as well as starter kit in cooking cabinet.

Remove all combustible materials and objects from the cooking cabinet before initial commissioning.

Starter kit

The device comes with a starter kit, which varies according to the scope of the order. Remove the starter kit from the cooking cabinet.

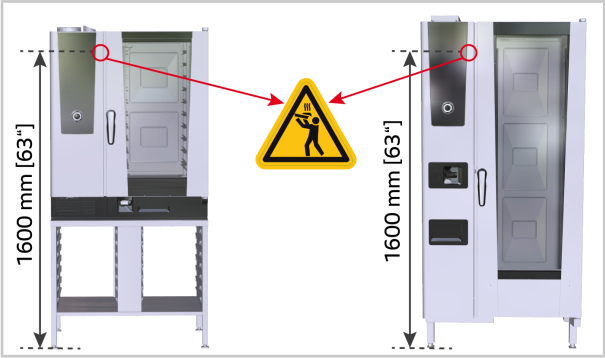
Maximum insertion height

⚠ WARNING

Danger of scalding from liquids

To avoid scalding, only use cooking vessels that are visible and easy to observe when heating liquids and food that becomes liquid when heated.

After installing the device, attach the 1600 mm [63 inch] maximum insertion height sticker to the device. The sticker is included with the starter kit.



Run software update

NOTE

Run software update

Always carry out a software update for commissioning. This means that your device will start with the latest software version.

12.2 Performing a self test

⚠ DANGER

Changed CO / CO_2 values after self test

Risk of poisoning due to excessive flue gas values.

- Perform a flue gas analysis after the self test.
- Set the values according to the flue gas analysis specifications.

The self test must be started once when the device is first commissioned. During the self test, the device is adapted to the ambient conditions.

The self test runs automatically. The duration depends on the device size and is between 45 and 65 minutes. With an UltraVent extractor hood, the self test is extended by approx. 20 minutes.

Preparations

- The device is properly connected to water, wastewater, electricity and, for gas devices, to the gas supply and flue gas system as described in these instructions.
- Check that the hook ladders and the air baffle are correctly fitted.
- The left side wall is closed.
- One GN container per fan wheel is required for the self test.

Inserting GN container

1. Slide a flat GN container with the opening facing down into the hang ladders in front of each fan wheel.

>> For device sizes XS GN to 6 full size GN, there is a GN container in the middle of the hook ladder in front of the fan wheel.

>> For device sizes 10 half size GN and 10 full size GN, there are two GN containers in the hook ladders, one in the middle of each fan wheel.

>> For device sizes 20 half size GN and 20 full size GN, there are three GN containers in the support rack trolley, one in the middle of each fan wheel.

Start self test

1. Close the cooking cabinet door.
2. Start the self test.

>> During the self test, the device is also checked for leaks. If steam escapes from the closed cooking cabinet door during the self test, wait until the self test is complete and check the door setting.

>> The display shows when the self test has been completed.

NOTE

If steam escapes from the door during the self test, the door setting may not be correct. In this case, check the door setting and reset the door if necessary.

13 Maintenance

13.1 Maintenance notes

Notes on gas devices

- According to the specified standards, the gas components must be serviced at least once a year.
- If maintenance or repair work has been carried out on gas devices, observe the following instructions:
  - Check that the compensation hose is fitted correctly.
  - Perform a leak test on the gas-carrying parts.
  - Perform a flue gas analysis.

13.2 Replacing air filters

If the air filter is dirty, a service message and request to change the air filter appears on the device display.

Notes for changing the air filter

Air filters may be replaced by the end user. When changing, make sure that the new air filter engages carefully in the correct position. Follow the instructions in the original operating instructions in the Maintenance chapter.

Air filter item numbers

Unit size	XS	6 half size - 10 full size	20 half size - 20 full size
Air filter item number	40.04.771	40.05.424	40.05.654

14 Decommissioning

14.1 Notes on decommissioning

Observe the following when decommissioning the device:

- Make sure that the device has cooled down to below 40°C [104°F].
- Make sure that the steam generator is pumped empty.
- Make sure that the cleaning box is pumped empty.
- Switch off the gas supply.
- Make sure that the device is de-energized and disconnected from the power supply.
- Remove all water, wastewater and, for gas devices, additional gas connections from the device.
- If the device is to be transported, remove the device from the foot locking mechanisms and from any wall mountings (mounting chain).

14.2 Disposal

Electrical and electronic devices such as iCombi Pro and iCombi Classic must be disposed of separately.

- Do not dispose of the device as household waste or in the old equipment container at municipal connection points.
- Observe the country-specific regulations for unit disposal.
- Where necessary, contact the manufacturer for further information on disposal.

15 Accessories

A detailed overview with part numbers can be found in the accessories catalog.

Accessories	Description
Stands UG I – XS	Different stands, with or without support rails for storage of accessories and partially closed. The stands can be extended with swivel castors or fixed feet for varying installation variants.
Left and right heat shield	If a sufficient distance to the heat source on the left cannot be maintained, an additional heat shield is available to reduce the thermal load. For the device sizes 6 half size GN and 10 half size GN, an additional heat shield is available for the right side.
Levelling frame for tabletop devices	If the installation surface is not horizontal, this can be compensated by a levelling frame. The adjustment range is +/- 20 mm [3/4 inch].
Device extension for tabletop devices	Suitable for device sizes 6 half size GN and 10 half size GN with a depth of at least 700 mm [27.6 inches]. If the distance to the work surface is insufficient, the unit can be raised by 150 mm [5.91 inches].
Device extension for floor devices	If the floor distance is too small for floor devices, the distance can be increased by extending the device feet by 70 mm [2.76 inch].
Transport trolley for support rack trolleys (standard or Combi-Duo)	Recommended for use with support rack trolleys. Two variants for tabletop devices (standard) or Combi-Duo with different docking systems. Requires the respective correct feed track. The standard transport trolley is also available with height adjustment to compensate for height differences during installation.
Support rack trolley extension	If the feet of floor devices with a foot extension are raised, a support rack trolley extension (70 mm [2.76 inch]) must be fitted to compensate for the support rack trolley.
Entry ramp for floor devices	If the installation surface in the entry area of the support rack trolley is not horizontal for floor devices, this can be compensated for by means of an entry ramp. The adjustment range of the plate feet is +/- 10 mm [0.39 inch].
Condensation breaker	Extending the ventilation pipe without a condensation breaker can cause the unit to malfunction. Installation of the condensation breaker and the included pipes ensures that escaping steam can be di-

Accessories	Description
	rected from the ventilation pipe to a non-critical area / to the extraction region of an extraction system.
Wall mount	Tabletop devices with device size XS GN and 6 half size GN can be wall-mounted using a bracket.

16 Conversion tables

Water hardness

	°dH	°f	°e	ppm	mmol/l	gr/gal	mval/kg
1 °dH (Germany)	1	1.79	1.25	17.9	0.1783	1.044	0.357
1 °f (France)	0.56	1	0.70	10.0	0.1	0.584	0.2
1 °e (GB)	0.8	1.43	1	14.32	0.14	0.84	0.286
1 ppm (USA)	0.056	0.1	0.07	1	0.01	0.0584	0.02
1 mmol/l (chem. conc.)	5.6	0.001	0.0007	100	1	0.00058	2
1 gr/gal (USA)	0.96	1.71	1.20	17.1	0.171	1	0.342
1 mval/kg (milliequivalent)	2.8	5.0	3.5	50	0.5	2.922	1

	CaO [mg/l]	$CaCO_3$ [mg/l]	Ca^{2+} [mg/l]
1 °dH (Germany)	10.00	17.86	7.14
1 °f (France)	5.60	10.0	4.00
1 °e (GB)	8.01	14.3	5.72
1 ppm (USA)	0.56	1.0	0.40
1 mmol/l (chem. conc.)	56.00	100.0	39.98
1 gr/gal (USA)	9.60/64.8	17.11	6.85
1 mval/kg (milliequivalent)	28.00	50.0	19.99

Pressure

kPa	mbar	psi	inch/wc
0.1	1	0.0147	0.4014
0.2	2	0.0294	0.8028
0.3	3	0.0441	1.2042
0.4	4	0.0588	1.6056
0.5	5	0.0735	2.0070
0.6	6	0.0882	2.4084
0.7	7	0.1029	2.8098
0.8	8	0.1176	3.2112
0.9	9	0.1323	3.6126

kPa	mbar	psi	inch/wc
1	10	0.147	4.0140
1.2	12	0.1764	4.8168
1.4	14	0.2058	5.6196
1.6	16	0.2352	6.4224
1.8	18	0.2646	7.2252
2	20	0.294	8.0280
2.5	25	0.3675	10.0350
3	30	0.441	12.0420
3.5	35	0.5145	14.0490
4	40	0.588	16.0560
4.5	45	0.6615	18.0630
5	50	0.735	20.0700
5.5	55	0.8085	22.0770
6	60	0.882	24.0840
6.5	65	0.9555	26.0910
7	70	1.029	28.0980
7.5	75	1.1025	30.1050
8	80	1.176	32.1120
8.5	85	1.2495	34.1190
9	90	1.323	36.1260
9.5	95	1.3965	38.1330
10	100	1.47	40.1400
20	200	2.94	80.2800
30	300	4.41	120.4200
40	400	5.88	160.5600
50	500	7.35	200.7000
100	1000	14.7	401.4000

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