iCombi® Pro
iCombi® Classic

Installation instructions

Translation of original installation manual

Unit handoff

Dealer:	Installer:

Include the following information with queries:

Unit no.:	
System model:	
Set to gas type:	
Your unit 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 unit.

⚠ 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.

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1 Introduction

1.1 Information on this manual

This document is an up-to-date version of the installation manual at the time of publication. Please note the respective version and date.

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

The figures in this manual are examples only and may differ from the unit.

This manual is valid for the following units:

- LM1: iCombi Pro
- LM2: iCombi Classic

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 unit. 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 children. Playing on, in, or near the unit is prohibited, even under supervision.

- 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

It is not permitted to pass on product-specific information to third parties. We reserve the right to implement technical developments and changes in the interest of progress. All rights are reserved, including those of translation and reproduction.

1.4 Conformity

The conformity of the units refers to the complete unit 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 units.

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

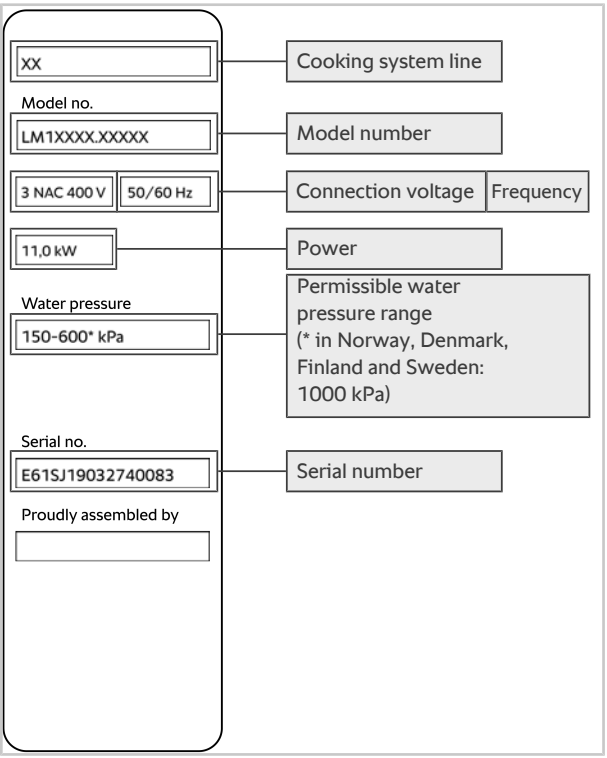
The warranty does not cover damage caused by failure to observe this installation manual.

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 unit

Type plate



Unit sizes

Unit size type plate	Cooking system size
LMxxx**A**...	XS
LMxxx**B**...	6-half size
LMxxx**C**...	6-full size

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

Cooking systems overview

Cooking system model	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 unit	✓	✓	✓	✓	✓	✓	✓
iCombi Pro Gas unit		✓	✓	✓	✓	✓	✓
iCombi Classic Electric unit		✓	✓	✓	✓	✓	✓
iCombi Classic Gas unit		✓	✓	✓	✓	✓	✓

2 Increase

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

- Observe the relevant country-specific and local regulations and standards in your country.
- Use the lifting aid to lift tabletop units.
- Secure the cooking system against tipping when transporting and after setup.
- Wear suitable protective clothing, such as protective gloves and safety shoes, during transport and installation.
- The cooking system should only be set up in a protected environment safe from frost and wind.

- Do not set up the cooking system in adverse weather conditions, such as rain.
- The cooking system should only be connected in accordance with the installation manual and the information on the identification plate.
- Switch off the unit when disconnecting it from or connecting it to the power supply.
- After use, only transport the unit in ambient temperature of over 0°C [32 F].
- Only store the unit in ambient temperature of over 0°C [32 °F].
- Do not operate the unit without an air filter.
- Do not spray aerosols in the area around the cooking system while it 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 units

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 units.
- If an air-recirculation hood is used, make sure that the air-recirculation 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 unit free from flammable materials.

2.4 Intended use

The cooking system 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 the unit outdoors. This unit must not be used for continuous mass industrial food production.

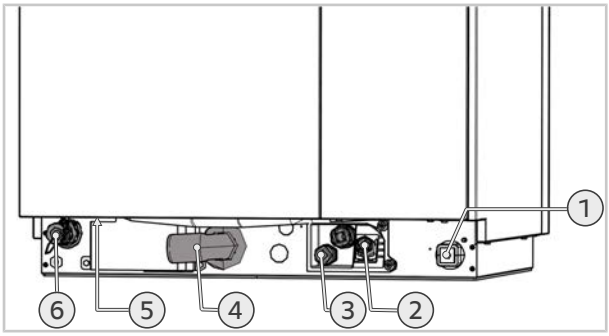
All other usages of this cooking system are considered improper and dangerous. The manufacturer accepts no liability for consequences arising from use other than intended.

3 Product description

3.1 Cooking system description

Unit size XS GN

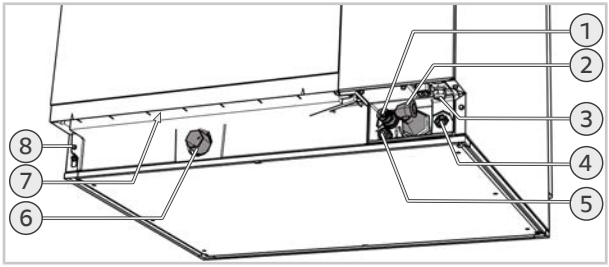
The connections for the installation are located on the rear side of the cooking system:



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

Unit size 6-half size to 10-full size GN

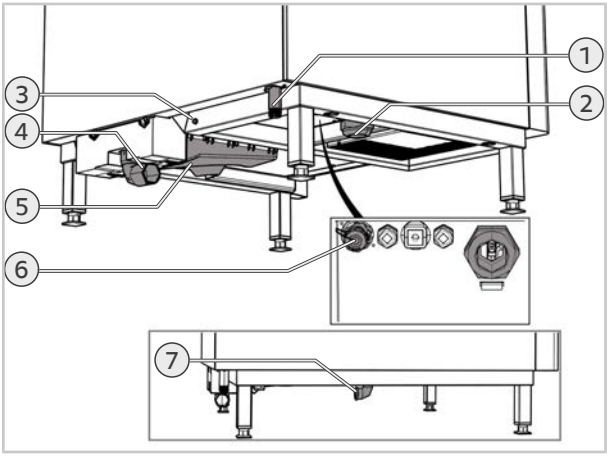
The connections for the installation are located on the rear side of the cooking system:



1	Network connection	2	Only for gas units: Gas connection Only for electric units: Electrical connection
3	Power supply	4	Water connection
5	Optional connection	6	Waste water connection
7	Safety overflow for wastewater connection	8	Equipotential bonding

Unit size 20-half size and 20-full size GN

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



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

3.2 Technical data

Protection class

The unit corresponds to water jet connection class IPX5.

Ambient conditions

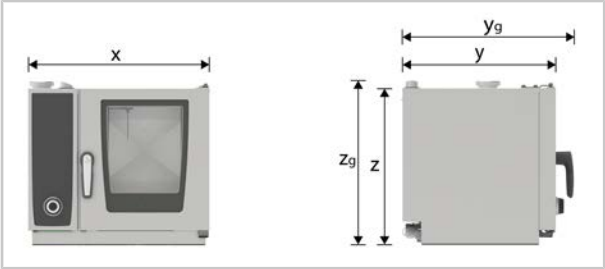
- Do not set up the cooking system in ambient temperatures below 5 °C [41 °F].
- Do not commission the cooking system in ambient temperatures below 5°C [41 °F].
- Set up the unit in rooms with adequate ventilation via windows or an air-recirculation hood.

Sound emission value

The sound emission value is <65 dB(A).

3.2.1 Cooking system dimensions

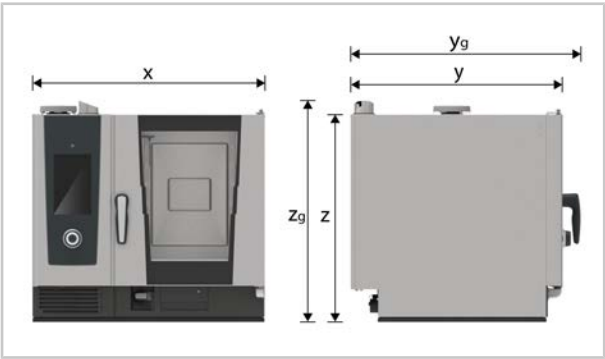
Unit size XS GN



Cooking system size	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
XS	657	25 7/8	556	21 7/8	567	22 1/4

Cooking system size	Depth overall dimension (mm) yg	Depth overall dimension (inch)	Overall height (mm) z_g	Overall dimension (inch)
XS	623	24 1/2	594	23 3/8

Unit size 6-half size to 10-full size GN

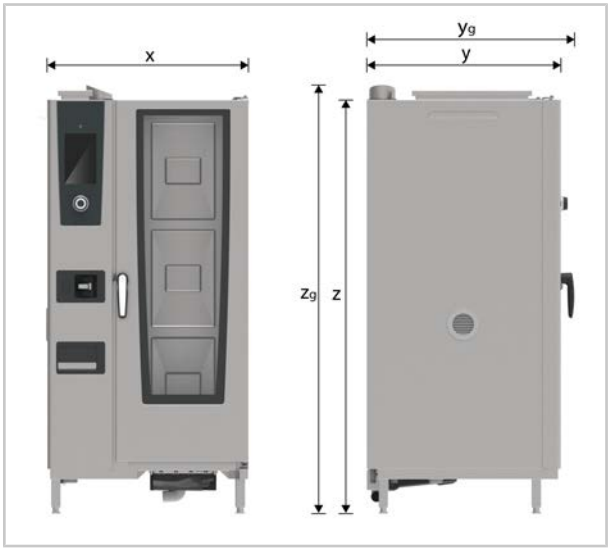


Cooking system size	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
6-half size	850	33 1/2	775	30 1/2	754	29 3/4
6-full size	1,074	42 1/4	975	38 3/8	754	29 3/4

Cooking system size	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
10-half size	850	33 ½	775	30 ½	1,014	39 ⅞
10-full size	1,072	42 ¼	975	38 ⅜	1,014	39 ⅞

Cooking system size	Depth overall dimension (mm) y_g	Depth overall dimension (inch)	Overall height (mm) z_g	Overall dimension (inch)
6-half size	842	33 ⅛	804	31 ¾
6-full size	1,042	41	804	31 ¾
10-half size	842	33 ⅛	1,064	41 ⅞
10-full size	1,043	41 ⅛	1,064	41 ⅞

Unit size 20-half size, 20-full size GN



Cooking system size	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
20-half size	879	34 ⅝	847	33 ⅜	1,817	71 ½

Cooking system size	Width (mm) x	Width (inch)	Depth (mm) y	Depth (inch)	Height (mm) z	Height (inch)
20-full size	1,084	42 5⁄8	1,052	41 3⁄8	1,817	71 1⁄2

Cooking system size	Depth overall dimension (mm) y_g	Depth overall dimension (inch)	Overall height (mm) z_g	Overall dimension (inch)
20-half size	914	36	1,882	74 1⁄8
20-full size	1,118	44	1,882	74 1⁄8

3.2.2 Cooking system weight

iCombi Pro Electric units

Cooking system weight	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Weight without packaging (kg)	64	101	135	130	173	254	325
Weight without packaging (lbs)	142	223	298	274.70	382	560	717

iCombi Pro Gas units

Cooking system weight	6-half size	10-half size	6-full size	10-full size	20-half size	20-full size
Weight without packaging (kg)	115	150	151	192	273	358
Weight without packaging (lbs)	254	331	333	424	602	790

iCombi Classic Electric units

Cooking system weight	6-half size	10-half size	6-full size	10-full size	20-half size	20-full size
Weight without packaging (kg)	96	123	128	165	245	313
Weight without packaging (lbs)	212	272	283	364	541	691

iCombi Classic Gas units

Cooking system weight	6-half size	10-half size	6-full size	10-full size	20-half size	20-full size
Weight without packaging (kg)	111	143	148	188	267	346
Weight without packaging (lbs)	245	316	327	415	589	763

3.2.3 Thermal load

iCombi Pro Electric units

Type of heat load (kJ/h)	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Latent thermal load EL (kJ/h)	1,020	2,050	3,450	3,450	6,350	6,850	10,900
Sensitive thermal load EL (kJ/h)	1,350	2,450	4,450	4,450	7,750	8,850	14,000

iCombi Pro Gas units

Type of heat load (kJ/h)	6-half size	10-half size	6-full size	10-full size	20-half size	20-full size
Latent thermal load (kJ/h)	2,050	3,450	3,450	6,350	6,850	10,900
Sensitive thermal load (kJ/h)	2,450	4,450	4,450	7,750	8,850	14,000

iCombi Classic Electric units

Type of heat load (kJ/h)	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Latent thermal load EL (kJ/h)	2,050	3,450	3,450	6,350	6,850	10,900
Sensitive thermal load EL (kJ/h)	2,523	4,583	4,583	7,982	9,115	14,420

iCombi Classic Gas units

Type of heat load (kJ/h)	6-half size	10-half size	6-full size	10-full size	20-half size	20-full size
Latent thermal load (kJ/h)	2,050	3,450	3,450	6350	6,850	10,900
Sensitive thermal load (kJ/h)	2,523	4,583	4,583	7982	9,115	14,420

We reserve the right to implement technical developments and changes.

4 Transport

⚠ CAUTION

Risk of crushing due to the weight of the unit

Hands and fingers may be crushed.

- Wear suitable protective clothing during transport.
- At least 3 people are required for the transport.

⚠ CAUTION

Risk of tipping during transport

Risk of crushing if the cooking system tips over onto a person.

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

NOTE

Damage to the unit due to narrow areas

- Note the width and height of the access points during transport.

Transport options

Transport type	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)	✓	✓	✓

Transporting the unit

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

4.1 Center of mass on the unit

⚠ CAUTION

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

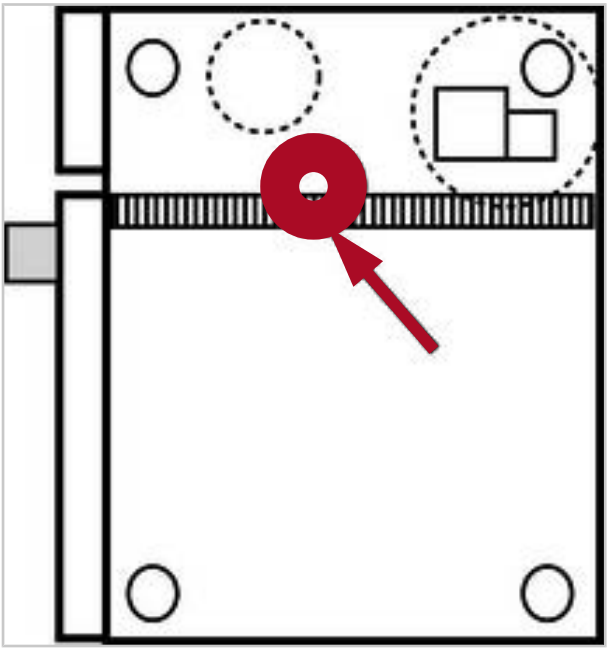
Failure to observe the center of mass can result in the cooking system tipping over during lifting and transportation.

- Ensure that the weight of the cooking system is distributed evenly.
- Note the unit center of gravity.

NOTE

Unit size XS GN: Damage to the unit 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 unit.

NOTE

Transport with transport aid without protection

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

Required door width with transport pallet

Dimensions	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Width x (mm)	885	940	1,155	940	1,155	970	1,180
Width x (inch)	34 7/8	37	45 1/2	37	45 1/2	38 1/4	46 1/2
Depth y (mm)	880	945	1,170	945	1,150	989	1,194
Depth y (mm)	34 5/8	37 1/4	46 1/8	37 1/4	45 1/4	38 7/8	47

Transport tabletop units with transport pallet

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

1. Transport the cooking system to the installation site with the transport pallet.
2. Lift the cooking system off the transport pallet by the lifting points and set it down on the designated installation surface.

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

Transport floor units with transport pallet

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

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

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

>> The unit 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 unit with a lift truck without protection.
- Use a wooden pallet or a wooden beam as protection, for example.

NOTE

Unit size XS GN: Damage to the unit 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

Dimensions	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
x (mm)	560	780	810	780	980	850	1,055
x (inch)	22	30 ¾	31 ⅞	30 ¾	38 ⅝	33 ½	41 ½

4.3.1 Transport tabletop units without pallet with lift truck

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

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

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

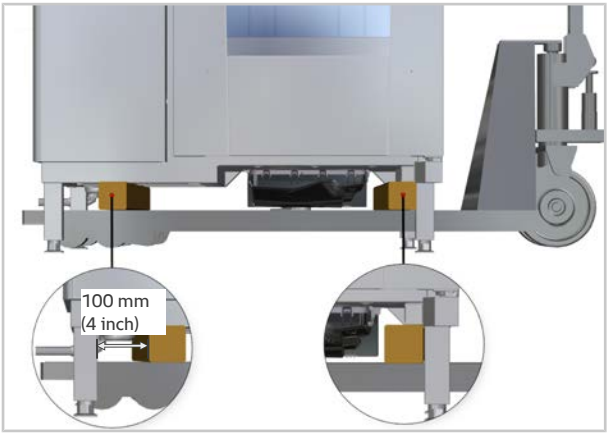
>> The unit is set down on the designated installation surface and is ready for setup.

4.3.2 Transport floor units without pallet with lift truck

- ✔ The packaging material is removed.
- ✔ The unit is on the unit 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 unit. 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 unit 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 unit.
   > The right transport aid must rest on the right foot of the unit.



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

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

4.4 Transport with lifting aid

Only transport unit sizes 6-half size to 10-full size using the lifting aid.

- Only original service parts may be used.
- Check the lifting aid before use. The lifting aid must not be used if it is worn or damaged.
- Use the lifting aid as described. Modification, extension or alternative use of the lifting aid is not permitted.
  The lifting aid may only be lifted by hand. Use with other lifting units is not permitted.

⚠ CAUTION

Risk of crushing during setup

Fingers, hands, and feet could be crushed under the cooking system.

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

⚠ CAUTION

Risk of crushing and injury due to incorrect lifting with the lifting aid

Hands, fingers or feet may be crushed.

- Ensure that the lifting aid, installation surface and protective clothing are clean and free of grease.
- Only lift the unit by hand using the lifting aid. Do not use any mechanical aids for lifting.

⚠ CAUTION

Sharp edges on the housing

Risk of cuts on the housing when working in the unit.

- Wear protective gloves.
- Only transport the unit at the approved transport points.

⚠ CAUTION

Risk of crushing and injury during Combi-Duo installation

There is an increased risk of crushing hands and fingers in Combi-Duo installations.
The distance between the bars of the lifting aid and the Combi-Duo kit is very small when positioning on the kit.

- Make sure that the unit is placed carefully on the kit and is stable on the installation surface.
- Place the unit on the installation surface so that there is sufficient space between the kit and the lifting aid to protect hands and fingers.

NOTE

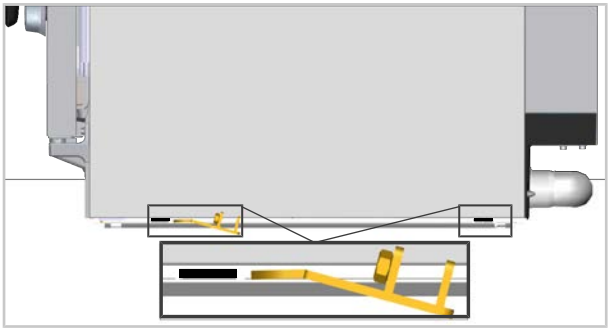
Correctly attached lifting aid wobbles without load

When the lifting aid is fully and correctly attached, a slight movement in the horizontal direction can be observed without load.
Due to the screw connection, the lifting aid cannot slip out of the lifting points. Transport can be carried out safely.
Follow the instructions in the installation manual.

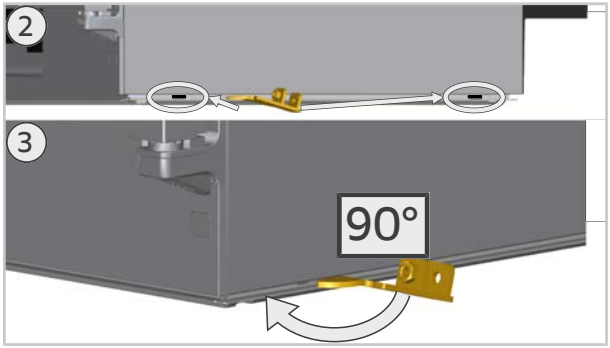
- ✔ All side panels are closed.
- ✔ The unit is positioned as close as possible to the final installation surface.
- ✔ A torque wrench with a suitable attachment is available.
- ✔ The installation surface, the unit and the lifting aid are clean and free of grease.
- ✔ Wear suitable protective clothing, e.g. work gloves.

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

2. Insert the four lifting straps into the side slots on the sides of the unit (1) with the top facing upwards.

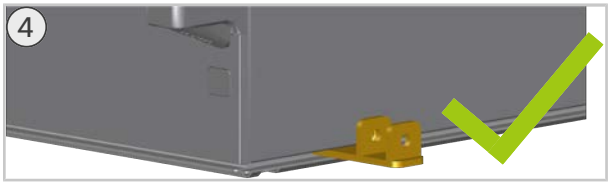


3. Insert the strap transversely (2) and turn clockwise 90° (3).



> The strap can no longer be pulled out (4).

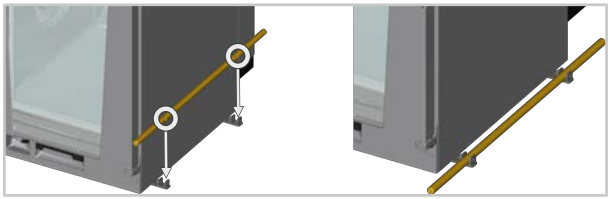
> The upper side of the lifting straps is labeled with the lettering TOP.



4. Attach the bar to the lifting straps.

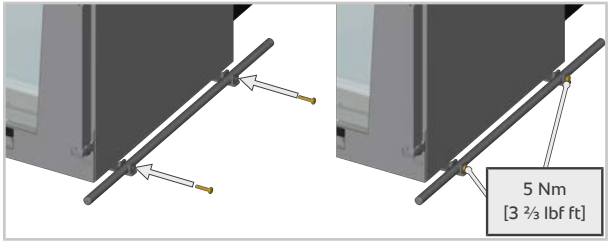
> Use the short bars for unit sizes 6-half size and 10-half size.

> Use the long bars for unit sizes 6-full size and 10-full size.

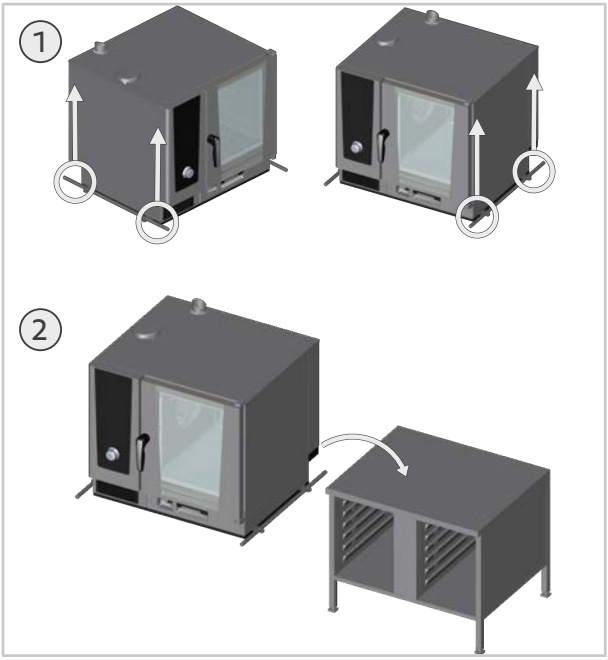


5. Fasten the bar with the M8 hex bolts with a torque of 5 Nm [3 ⅔ lbf ft].

> Ensure that the screws are screwed in flush. All four screws must be tightened accordingly.



6. Transport the unit using the lifting aid and place it on the designated installation surface.
   > Lift the unit evenly at the circled lifting points of the bars (1).
   > Transport the unit to the designated installation surface (2) with the lifting aid.



7. Remove the lifting aid. Proceed in the reverse order (Points 2–4).
8. Push the seal back into the groove provided in the base frame.

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

5 Setup

⚠ CAUTION

Risk of crushing during setup

Fingers, hands, and feet could be crushed under the cooking system.

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

NOTE

Unit damage due to freezing

Ambient temperatures below freezing (frost) may cause damage to the unit.

- Only install the unit in frost-proof areas.

NOTE

Malfunction of the unit due to moisture being drawn in

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

- Avoid steam sources near the air filter.

NOTE

Malfunction of the unit due to blocked air filter

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

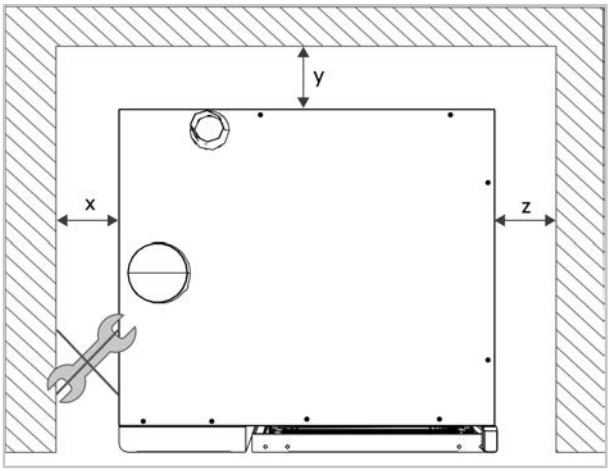
- Make sure that the grille of the air filter is not sealed or covered.

5.1 Minimum distance to the cooking system

5.1.1 Distance from walls

Minimum distance to all sides

Set up the unit taking into account the minimum distances to the wall and objects without a heat source. The distances depend on the unit size, as shown in the table below.

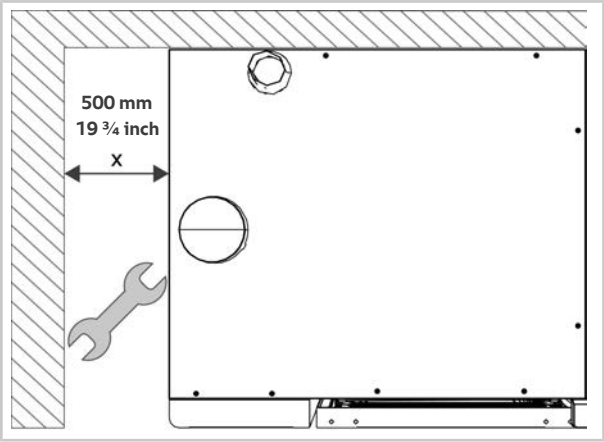


Cooking system size	XS	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
x (mm)	10	50	50	50	50	50	50
x (inch)	3/8	2	2	2	2	2	2
y (mm)	10	0	0	0	0	0	0
y (inch)	3/8	0	0	0	0	0	0
z (mm)	10	50	50	50	50	50	50
z (inch)	3/8	2	2	2	2	2	2

Recommended distance to the left side of the unit

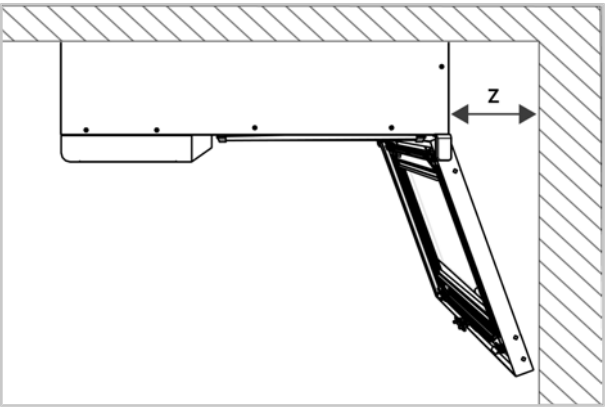
To ensure that there is sufficient space on the left side of the unit to carry out service work in the installation area, place the unit on the left side at a recommended minimum distance from the wall.

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



Recommended distance to the right side of the unit

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



Cooking system 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	355	457
z (inch)	8 ⅜	9 ¾	12 ⅜	9 ¾	12 ⅜	14	18

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 unit)

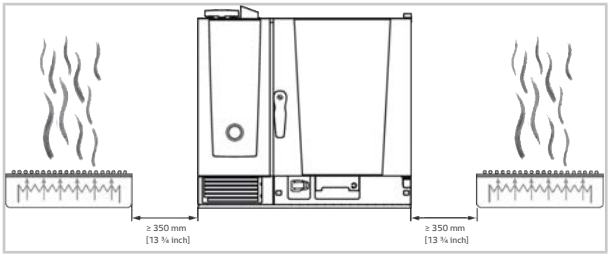
If the temperatures in the installation area on the left side of the unit exceed 80°C [176°F], the heating system is switched off by an automatic safety switch-off.

NOTE

High ambient temperatures at the rear of the unit

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

Set up the unit with a minimum distance of 350 mm [13 ¾ inch] from heat sources on the left and right.



RATIONAL iVario units are not considered a heat source in this sense. A side clearance of 50 mm [2 inch] (without heat shield) is sufficient.

Heat shield (optional)

If a sufficient distance to the heat source on the left and right cannot be maintained, an additional heat shield is available to reduce the thermal load. This reduces the side distance to the heat source to 50 mm [2 inch].

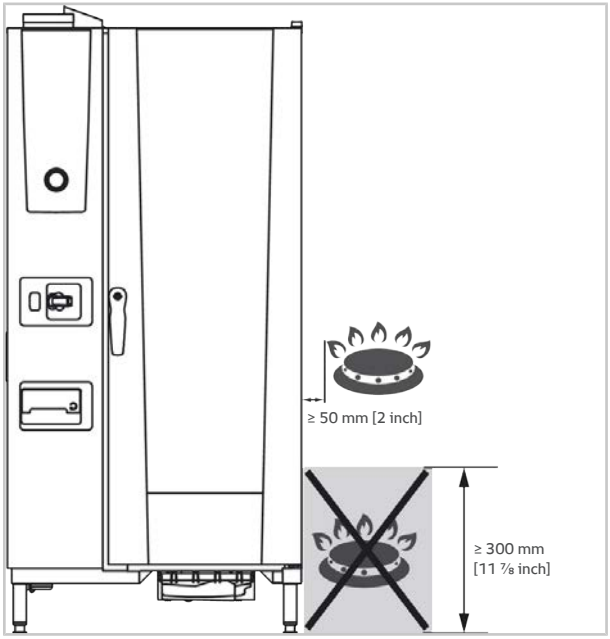
The heat shields are available for the following unit sizes and combinations:

Heat shield	XS	6-half size - 10-full size	20-half size; 20-full size
Left heat shield	x	x	x
Right heat shield	-	x	-
Left heat shield with Combi-Duo	x	x	-

Heat shield	XS	6-half size - 10-full size	20-half size; 20-full size
Right heat shield with Combi-Duo	-	x	-
Left heat shield with UV/UV Plus	x	-	-
Right heat shield with UV/UV Plus	-	-	-
Left heat shield with Combi-Duo and UV/UV Plus	x	-	-
Right heat shield with Combi-Duo and UV/UV Plus	-	-	-

Right-side clearance on floor units

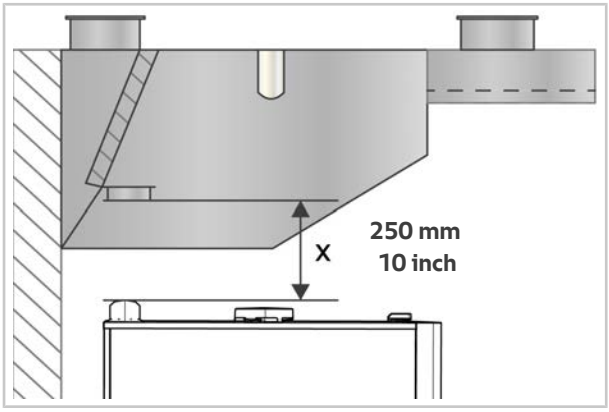
With floor units, the side distance to the right of heat sources can also be reduced to 50 mm [2 inch] if the heat source acts at a height of more than 300 mm [11 ⅞ inch] off the floor.



5.1.3 Distance to ceiling

Electric units

Install the electric unit with a minimum distance between the ventilation pipe of the unit and the grease filters of the air-recirculation hood/ventilation ceiling.

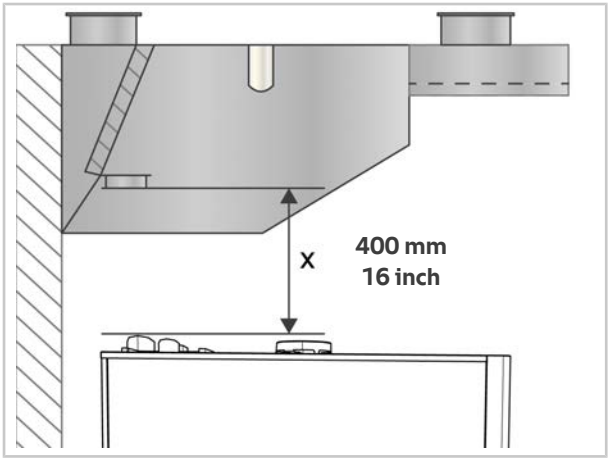


Note:

- We recommend maintaining an overhead clearance of at least 450 mm for all cooking systems and Combi-Duos using an UltraVent or an UltraVent Plus.
- In individual cases involving Model 10-half size or smaller tabletop cooking systems, this clearance can be reduced to a minimum of 250 mm following expert evaluation of local framework conditions.

Gas units

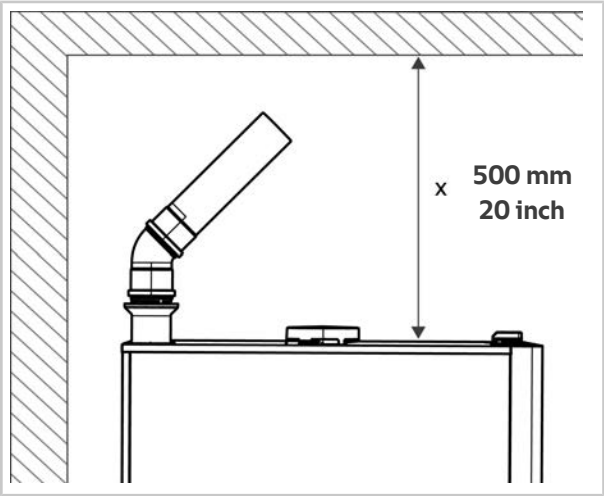
Install the gas unit with a minimum distance between the flue gas pipes of the unit and the grease filters of the air-recirculation hood/ventilation ceiling.



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 unit 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.



5.2 Installation of tabletop units

⚠ WARNING

Unit falls from the installation surface

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

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

⚠ WARNING

Height adjustment by means of unit 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 unit.
- Inform the end user about the danger of the raised rack rails.

NOTE

Usage of sealing tape to prevent contamination

Equipment is to be sealed to the counter (or floor) to establish proper sanitary operation.

There is a sealing tape on the underside of the unit to seal the installation site. The sealing tape prevents dirt and liquid gets under the unit.

If the sealing has been carried out according to specifications, the result should be as follows: Prevent liquids from reaching adjacent surfaces of the floor or worktop under inaccessible parts of the unit.

- Be careful when moving the unit. Make sure that the seal is not destroyed.

Requirements

- When setting up the unit on a stand or floor unit, ensure that only genuine stands or floor units from the unit manufacturer are used.
- Only install the unit on a horizontal surface. Any unevenness must not exceed 1 mm [0.04 inch] in relation to the unit 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.
- Place the unit in an easily accessible location. The function of the cooking cabinet door, for example, must not be impaired by decorations and paneling. Always observe the minimum distances.

See also

Installation on non-original bases of the unit manufacturer [▶ 40]

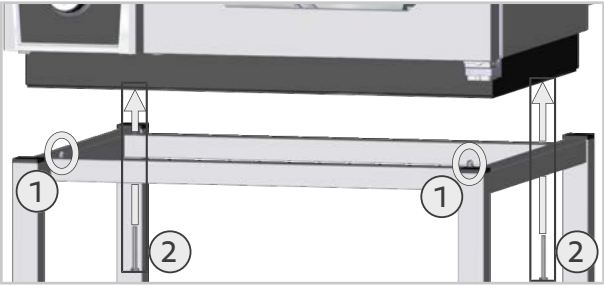
5.2.1 Install unit size 6-2/3 GN on stand

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

✔ There are two screws available for fastening.

1. Lift the unit on to the stand.
2. Position the unit using the spring pins (1). Make sure that the spring pins of the stand engage in the front holes on the underside of the unit.

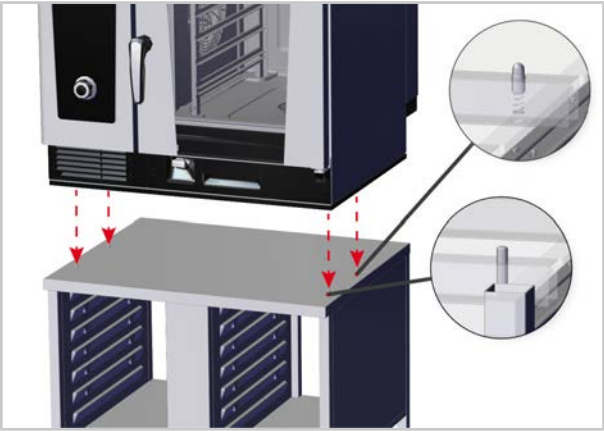
3. Insert the two screws from below into the rear holes and tighten them (2).



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

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

1. Lift the unit on to the stand.
2. Position the unit using the spring pins.
3. Screw the unit 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 unit.



5.2.3 Align and fasten the stand horizontally

⚠ CAUTION

Slipping of the unit at the installation position

Risk of crushing if the unit slips.

Gas lines may be damaged in gas units.

- Secure the unit using the fixing set.

Non-mobile stand

Align stand horizontally

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

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

Fix 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 units and can be ordered separately from the manufacturer under item number 8700.0317.

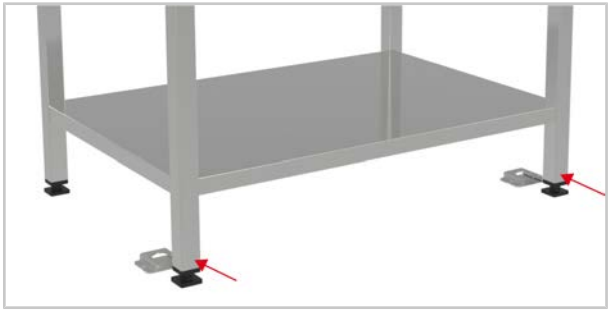
Observe the distances between the foot locks for the respective unit sizes:

Distance	6-half size - 10-half size	6-full size - 10-full size
x [mm]	755.5	977.5
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 set screw on the castors using an Allen key.
2. Adjust the height adjustment on the castors with a wrench until the castors are securely in position.
3. Tighten the set 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 unit with a suitable retaining cable or chain to unit and on the rear wall (retaining unit is not included in the scope of delivery).

5.2.4 Installation on non-original bases of the unit manufacturer

⚠ CAUTION

Risk of crushing due to the weight of the unit

Hands, fingers and feet may be crushed.

- Wear suitable protective clothing during transport.
- Where possible, use lifting aids such as a lifting strap.

⚠ CAUTION

Risk of injury due to inadequate base

If the unit is set up on inadequate bases, injury and damage to the unit and base can occur.

- The base must meet the static requirements for the weight and dimensions of the unit. Check whether the static requirements are fulfilled.
- The tabletop must be at least 2 mm [⅛ inch] thick.

Unit sizes XS to 10-full size can be installed directly on non-original bases from the unit manufacturer.

Only install the unit on bases that are statically suitable for this purpose. Note the unit weight (Cooking system weight [▷ 17]) including the maximum load.

If the unit is mounted on a non-original base, the manufacturer's liability expires.

See also

Cooking system weight [▷ 17]

5.3 Installation of floor units

5.3.1 Install and align floor units

Lift the floor unit from the transport pallet and install

⚠ CAUTION

Danger of tipping during installation

Risk of crushing if the unit tips onto a person

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

⚠ CAUTION

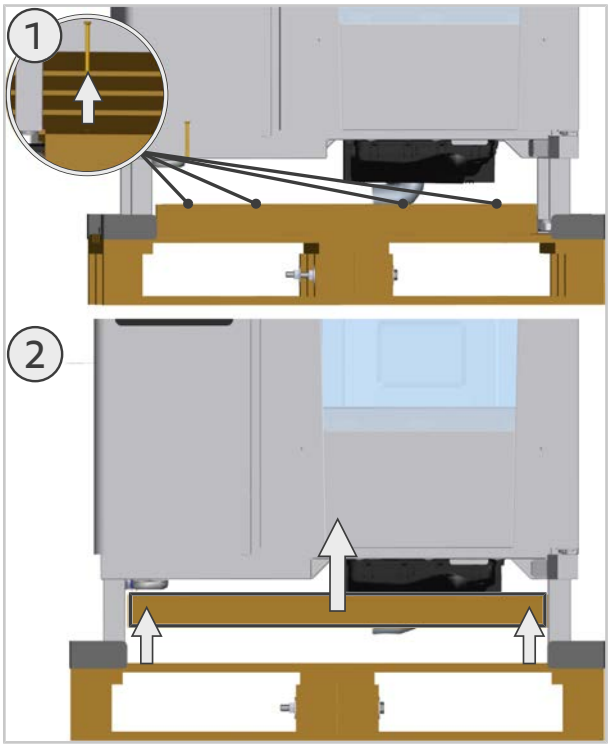
Risk of injury due to the weight of the unit

Personal injury and material damage caused by the unit tipping over

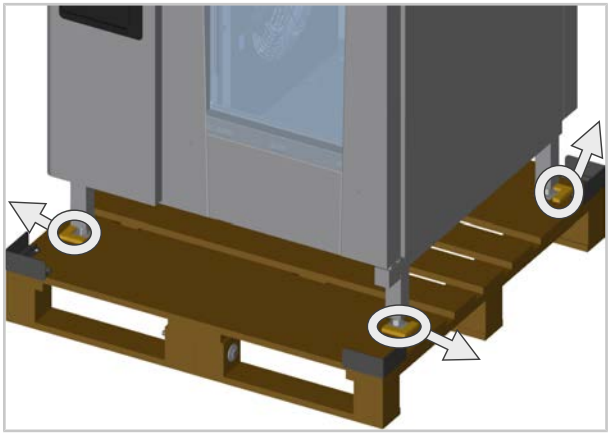
- At least two people are required to install the unit.

- ✔ The installation surface is horizontal, free of grease and clean.
- ✔ The transport aid is available.

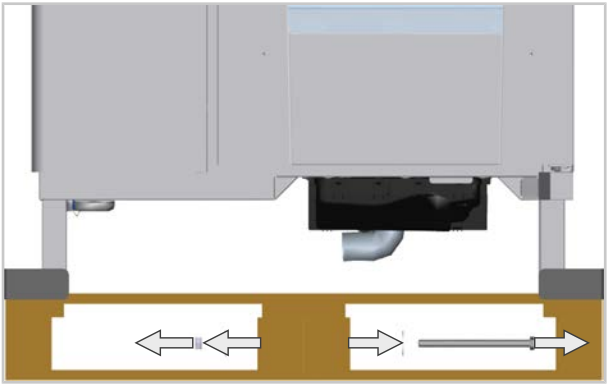
1. Open the screws connecting the transport pallet to the transport aid. Place the screwed transport aid to the right of the transport pallet.



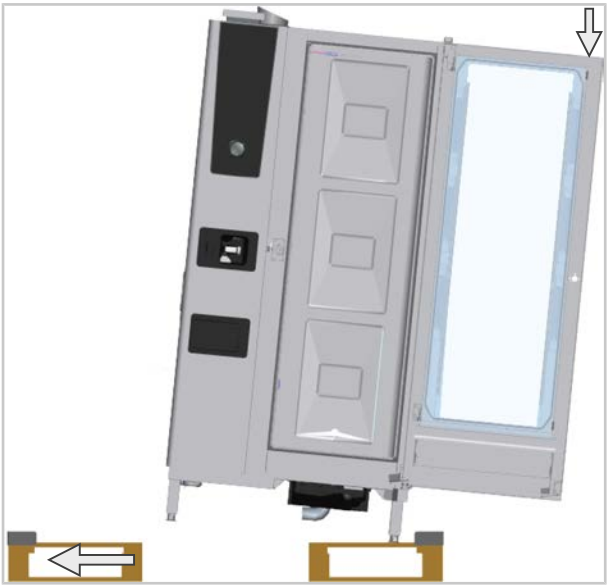
2. Remove the foam rubber next to the unit feet from the transport pallet.



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

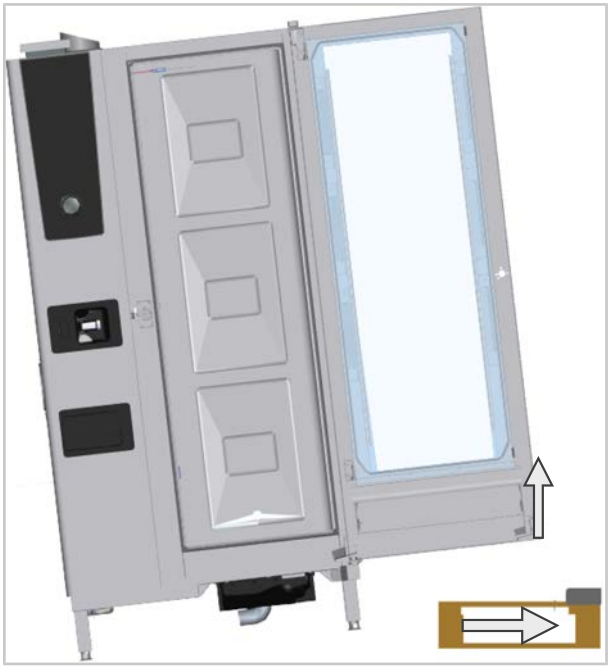


4. Open the cooking cabinet door.
5. Pull the floor unit downwards by the cooking cabinet door. Remove the part of the pallet under the electrical compartment.



6. Install the unit with the rear feet on the installation surface.

7. Carefully lift the unit by the cooking cabinet door and pull out the pallet under the unit.



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

Align the floor unit

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

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

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

5.3.2 Secure floor unit

⚠ CAUTION

Slipping of the unit at the installation position

Risk of crushing if the unit slips.

Gas lines may be damaged in gas units.

- Secure the unit using the fixing set.

Secure the floor unit 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 units and can be ordered separately from the manufacturer under item number 8700.0317.

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

Distance from	20-half size	20-full size
x [mm]	741	946
x [inch]	29 ⅛	37 ¼

✔ 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 unit 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.

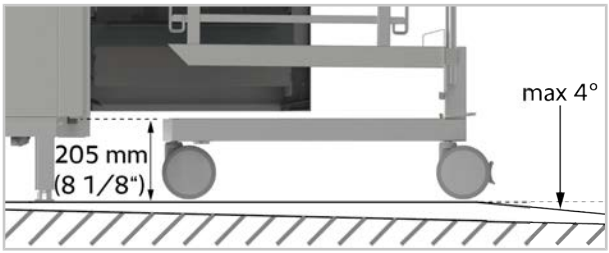
NOTE

Malfunction due to inclined mobile oven rack

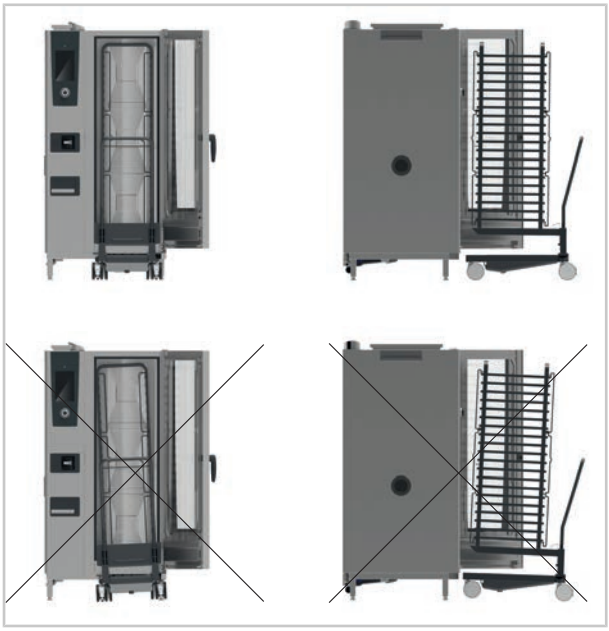
An incorrectly aligned mobile oven rack can lead to malfunctions in the unit function, for example during cleaning.

- Align the mobile oven rack horizontally in the unit.

1. Set a distance of 205 mm [8 ⅛ inch] between the upper edge of the entry frame and the floor using the unit feet. The distance is required so that the support rack trolley can move correctly into the unit.



2. Check that the support rack trolley enters the unit 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 unit, 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. Stick the handle holder to the top of the unit so that the holder faces the left side panel.
2. Hang the handle in the holder.

5.4 Fixing the unit in place

⚠ CAUTION

Slipping of the unit at the installation position

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

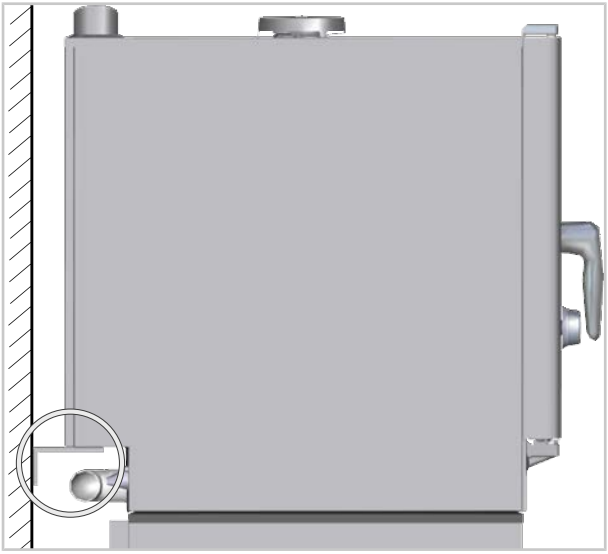
Gas lines may be damaged in gas units.

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

Fixing

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

If present, use the supplied retaining units (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 unit.
- Install the unit under a kitchen ventilation system.

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 extraction hoods.
- USA and Canada: The extractor hood must extend 150 - 500 mm [6 – 20 inch] beyond the front of the unit.
- When using a VarioSmoker, install the unit under an externally ventilated extractor hood.
- Install a grease filter in the overhanging area of the extractor hood.

Extraction hood

An extraction hood (also for retrofitting) is available for the units. To install the extraction hood, follow the installation instructions supplied with the extraction 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.
- Secure against unintentional switching on.
- 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 unit accessible on-site with a contact distance of at least 3 mm [0.12 inch].

NOTE

Supply voltage does not correspond to the unit voltage

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

6.1 Regulations for the electrical connection

- Observe the VDE regulations and the regulations of the local power supplier.
- Connect the unit in accordance with the valid regulations in your country, state, city or municipality.
- Connect the unit 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
- To ensure a proper power connection, adapt connected loads to local conditions and requirements.

- The maximum connection impedance at the mains connection point is uniformly 0.09 Ω on all unit sizes.
- Observe the NFPA 70/NEC and CSA C22.2 regulations.
- Only use power cables in accordance with NEC/NEMA regulations.
- Only connect the cooking system with copper cables. The cables must comply with all applicable regulations.

Cable types

Observe the permissible cable types for the respective unit sizes:

Unit size	Cable types
6-half size, 6-full size, 10-half size, 20-half size, 20-full size	RHH, THHN, THW-2, THWN-2, XHH, XHHW, XHHW-2, RHW-2, FEP/FEPB
10-full size	THHN, THWN-2, XHH, XHHW, XHHW-2, FEP/FEPB

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

Unit size 6-half size GN to 20-full size GN

Connect the unit to a fault-current circuit breaker in accordance with the table Connected loads of different voltage variants [▷ 66].

Unit size XS GN

Voltage waveforms with neutral conductor ("NAC"): Connect the unit to a fault-current circuit breaker in accordance with the table Connected loads of different voltage variants [▷ 66].

Voltage waveforms without neutral conductor ("AC"): Connect the unit to a fault-current circuit breaker in accordance with the table Connected loads of different voltage variants [▷ 66].

The power connection of the unit must be made in such a way that the mains plug is freely accessible and can be disconnected from the mains at any time.

Notes on floor units

- The cross-sections of the connection cables are based on the power consumption and local regulations.

Notes on UltraVent/UltraVent Plus condensation hood

For units with a condensation hood, disconnect both unit from the power supply before servicing.

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

Notes for XS GN units with an 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 unit with a contact distance of at least 3 mm [⅛ 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. 78 ¾ inch] connection cable without a plug.
- If the connection cable is replaced, use at least one cable of quality H05 RN-F 3x1.5 mm^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 unit is switched off to prevent the condensation hood from starting up.

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

With the UPS unit 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 unit. When carrying out service work on the unit, disconnect both voltage sources from the mains.

6.2 Opening the electrical compartment

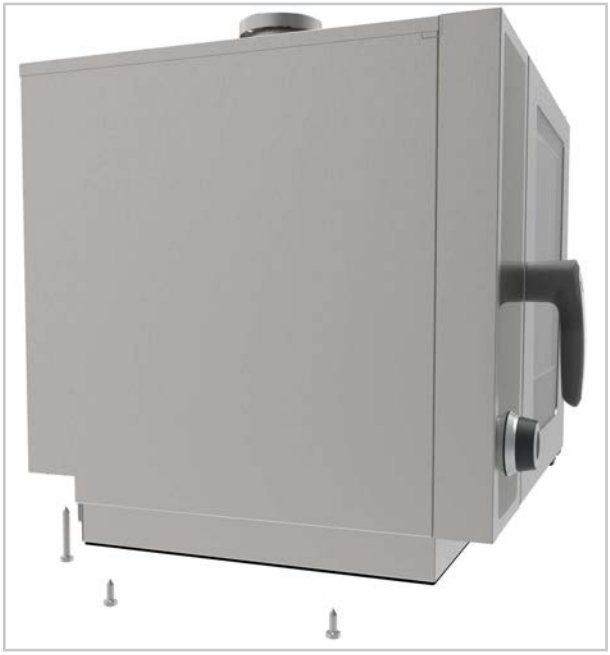
The electrical compartment is located behind the left side wall.

- ✔ The unit is positioned on the designated installation surface.
- ✔ The unit 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 unit size.

Unit size XS GN

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

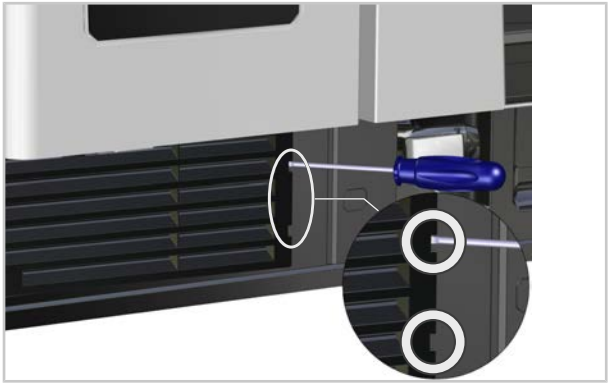


2. Lift the left side wall from below and pull the side wall downwards away from the unit.

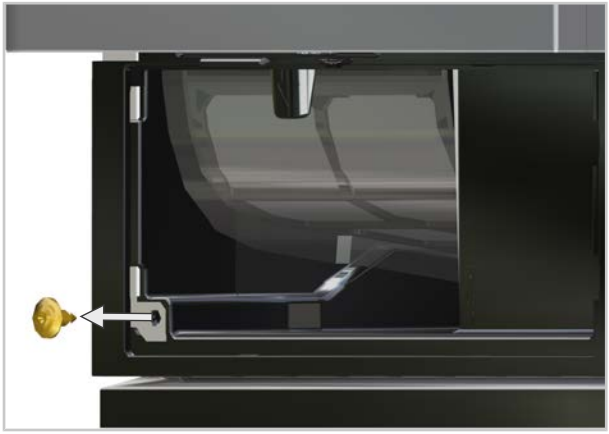
>> The electrical compartment is open.

Unit size 6-half size GN to 10-full size GN

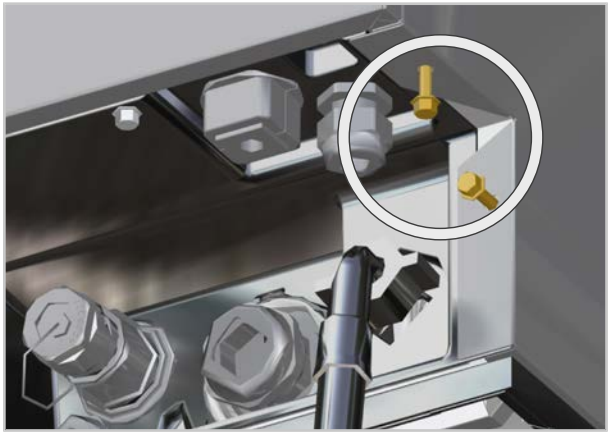
1. Use a screwdriver to leverage out the grille below the control panel.



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



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



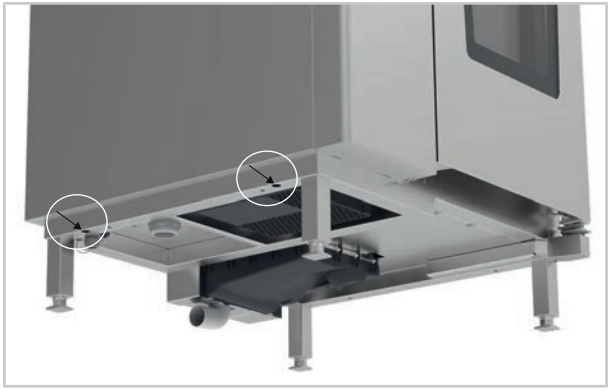
4. Pull the left side panel downwards away from the unit.
5. Remove the side panel.

>> The electrical compartment is open.

Unit size 20-half size GN, 20-full size GN

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

> The openings to the screws are closed with a cover. Carefully remove the cover to gain access to the screws.



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

>> The electrical compartment is open.

6.3 Connecting the electrical units to the power grid

Notes on the power cord and connection point

- There is a fixed connection for the electrical connection of the unit.
- Units 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 unit.
- The cooking systems are supplied without a power cable.
- Unit size XS GN: The unit is delivered with a power cable.

- The connection point of the power cord is on the main contactor in the electrical compartment behind the removable left side wall.

Making the connection on the tabletop unit

- ✔ Unit size XS GN: For the installation, there is an all-pole disconnecting unit with a contact distance of at least 3 mm [0.12 inch].
- ✔ A fault-current circuit breaker according to the table Connected loads of different voltage variants [▷ 66] is in place.
- ✔ 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 unit is connected to the power grid.

Making the connection on the floor unit

- ✔ A fault-current circuit breaker according to table Connected loads of different voltage variants [▷ 66] is in place.
- ✔ 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 unit is connected to the power grid.

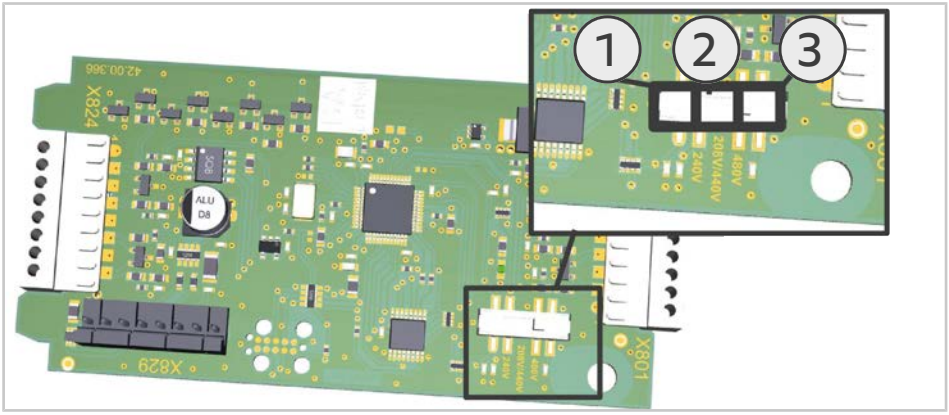
Color coding terminals

Connection	Conductor color	Terminals	Tool (only floor units)
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 (Physical Earth)	Hex socket (Torx)

6.4 Switching the power supply (USA and Canada only)

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

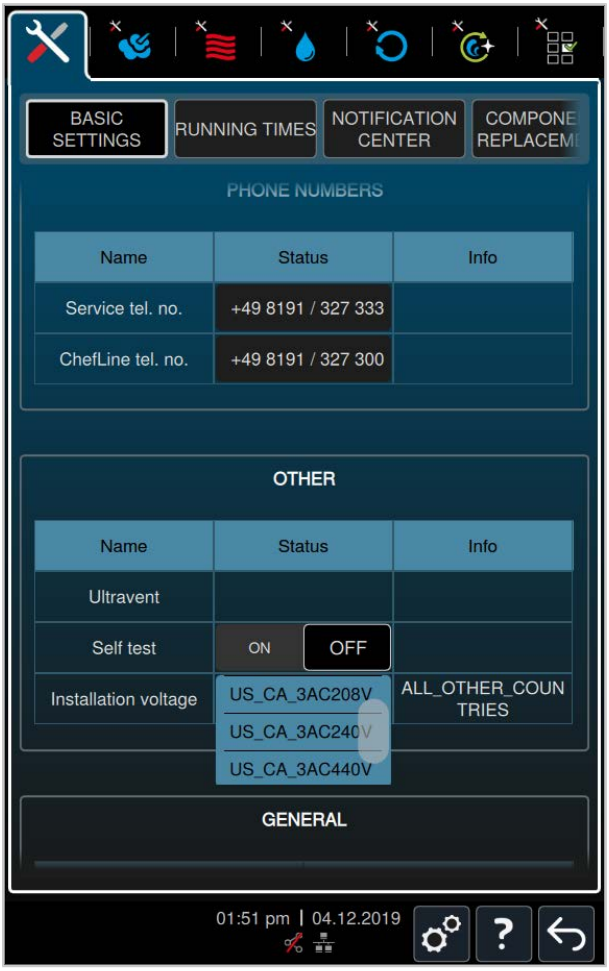
1. Check the supply voltage at the connection.
2. Set the voltage at the switch in accordance with the power supply. In its base position, the switch is in Position 2:



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 units is not included in the scope of delivery of the units and must be ordered separately.

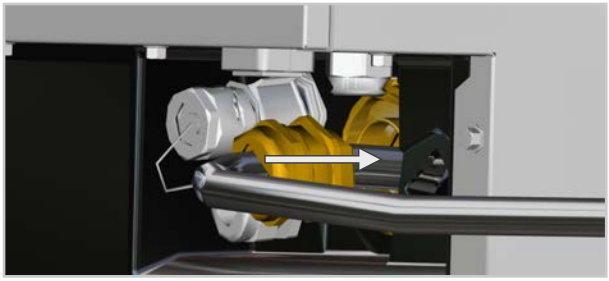
The conduit connection is required for units with the following voltage variants. Refer to the following table for the diameters of the conduit connection kits:

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

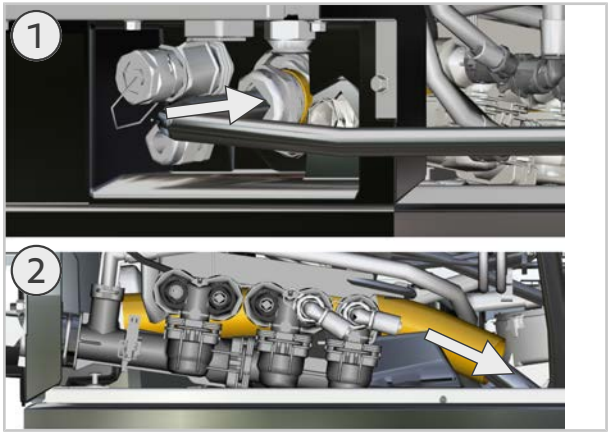
- ✔ The unit is switched off.
- ✔ All voltage sources are switched off via an external circuit breaker.
- ✔ The corresponding pipe adapter is loosely attached to the wires (the pipe adapter is not included in the scope of delivery).
- ✔ The wires are inserted into the cable. The lock nut and the seals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

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

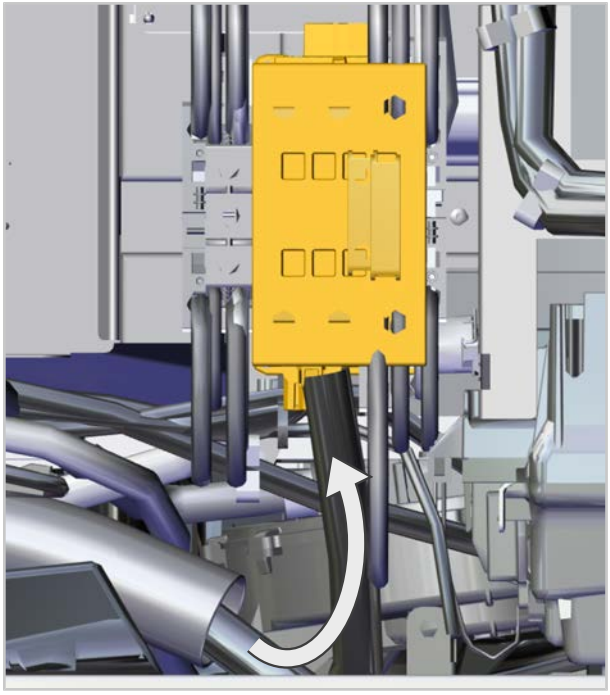


2. Open the left side wall.
   > The electrical compartment is open.

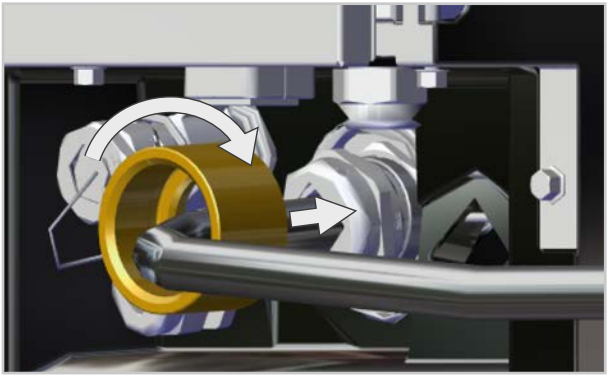
3. Guide the wires through the connection pipe.



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 unit.

6.6 Connecting the gas units to the power grid

NOTE

Incorrect polarity at the electrical connection

If the polarity is incorrect, an error message appears. The unit is not functioning.

- Observe the polarity of the electrical connection.

Notes on the power cord and connection point

- It is recommended by the manufacturer to use a separate fused supply line for each unit.
- 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 unit.
- The units are supplied with a power cable without a plug. The length of the cable is approximately 2.5 m [98.5 inches].
- Combi-Duo: Both units can be operated via a double socket with a 15 A circuit breaker.
- 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

✔ If local regulations do not require a GFCI outlet or fuse, a plug can be connected to the supplied cable on site. A NEMA 5–15 and NEMA 6–15 are included in the optional installation kit.

To avoid false trips when a GFCI is required, this unit is approved for fixed wiring on site in accordance with applicable local and national electrical codes and utility requirements.

✔ 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 unit 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	P
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.

Unit 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.

Unit 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 unit.
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.

Unit 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 units.

Unit size XS GN

Unit size 6-half size GN to 10-full size GN

Unit size 20-half size GN, 20-full size GN

6.9 Connected loads of different voltage variants

Maximum connection voltage

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

iCombi Pro, iCombi Classic Electric units

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
XS (1 ph 208 V)	60	27.4	5.7	50	B
6-half size E (1 ph 208 V)	60	52.0	10.8	70	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
XS (1 ph 240 V)	50 / 60	24.0	5.7	25	B
6-half size E (1 ph 240 V)	50 / 60	45.0	10.8	60	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
XS (3 ph 208 V)	60	15.9	5.7	30	B
6-half size E (3 ph 208 V)	60	30.0	10.8	40	B
6-full size E (3 ph 208 V)	60	62.2	22.4	80	B
10-half size E (3 ph 208 V)	60	52.5	18.9	70	B
10-full size E (3 ph 208 V)	60	103.8	37.4	150	B
20-half size E (3 ph 208 V)	60	103.3	37.2	150	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
20-full size E (3 ph 208 V)	60	188.5	67.9	250	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-half size E (3 ph 440 V)	60	14.2	10.8	20	B
6-full size E (3 ph 440 V)	60	29.4	22.4	40	B
10-half size E (3 ph 440 V)	60	24.8	18.9	35	B
10-full size E (3 ph 440 V)	60	49.1	37.4	70	B
20-half size E (3 ph 440 V)	60	48.8	37.2	70	B
20-full size E (3 ph 440 V)	60	89.1	67.9	125	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-half size E (3 ph 480 V)	60	13.0	10.8	20	B
6-full size E (3 ph 480 V)	60	26.9	22.4	35	B
10-half size E (3 ph 480 V)	60	22.7	18.9	30	B
10-full size E (3 ph 480 V)	60	45.0	37.4	60	B
20-half size E (3 ph 480 V)	60	44.7	37.2	60	B
20-full size E (3 ph 480 V)	60	81.7	67.9	125	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
XS E (AC 240 V)	60	15.5	5.7	30	B
6-half size E (AC 240 V)	60	26.0	10.8	35	B
6-full size E (AC 240 V)	60	53.9	22.4	70	B
10-half size E (AC 240 V)	60	45.5	18.9	60	B
10-full size E (AC 240 V)	60	90.0	37.4	125	B
20-half size	60	89.5	37.2	125	B
20-full size E (AC 240 V)	60	163.3	67.9	225	B

iCombi Pro, iCombi Classic Gas units

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-half size G (1 ph 120 V)	60	5.0	0.6	15	F/B
10-half size G (1 ph 120 V)	60	7.5	0.9	15	B
20-half size G (1 ph 120 V)	60	10.8	1.3	15	F/B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-half size G (1 ph 208 V)	60	2.9	0.6	15	B
6-full size G (1 ph 208 V)	60	4.3	0.9	15	B
10-half size G (1 ph 208 V)	60	4.3	0.9	15	B
10-full size G (1 ph 208 V)	60	7.2	1.5	15	B
20-half size G (1 ph 208 V)	60	6.3	1.3	15	B
20-full size G (1 ph 208 V)	60	10.6	2.2	15	B

Unit size (voltage variant)	Hz	Power consumption (A)	Power (kW)	Fuse (A)	RCD model
6-half size G (1 ph 240 V)	50 / 60	2.5	0.6	15	B
6-full size G (1 ph 240 V)	50 / 60	3.8	0.9	15	B
10-half size G (1 ph 240 V)	50 / 60	3.8	0.9	15	B
10-full size G (1 ph 240 V)	50 / 60	6.3	1.5	15	B
20-half size G (1 ph 240 V)	50 / 60	5.4	1.3	15	B
20-full size G (1 ph 240 V)	50 / 60	9.2	2.2	15	B

7 Network connection

*this chapter does not apply for USA and Canada.

7.1 Notes on the network connection

The network port allows you to connect the unit to your network to connect the unit to ConnectedCooking.

Ethernet connection (Local Area Network)

iCombi Pro:

- The units 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 unit size XS GN to 10-full size GN, there is a connection on the rear of the unit.
- For unit size 20-half size GN and 20-full size GN, there is a connection on the bottom of the unit.
- A detailed description of the connection to the network can be found in the original operating manual.

iCombi Classic:

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

The retrofit kit is available under item number 87.02.032S.

WLAN (Wireless Local Area Network)

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

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

7.2 Connecting the unit 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 unit complies with current regulations.
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 unit 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 previously 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.

- In the Netherlands, Switzerland and Japan, 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 unit sizes comply with the requirements for drinking water protection as per EN 1717 when delivered.
- In countries with special requirements for drinking water protection, a backflow preventer must be fitted (item number 60.73,482). This set is included in the scope of delivery in Germany, the Netherlands and Switzerland.
  In Japan, the backflow preventer (item number 50.01.685) is included.
  If a second water connection is used, it must also be equipped with a backflow preventer.

Water pressure

- Required water pressure (flow pressure) in the supply line: 1.0 – 6.0 bar (14.5 – 87.0 psi).
- Recommended water pressure: 3.0 bar (43.5 psi).

Required flow rate per unit

Cooking system 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]	3.0	12.0	12.0	12.0	12.0	12.0	12.0
Max. flow rate [gal/min]	0.8	3.2	3.2	3.2	3.2	3.2	3.2

8.2 Connecting the water inlet

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

Unit size XS GN

Unit size 6-half size GN to 10-full size GN

Unit 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 units, 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 required water filter. Follow the instructions for selecting the water filter.

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

8.3 Notes on water treatment

If the water quality is not suitable for the unit, 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 and shorten the service life of the unit. 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 unit 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 units 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 units

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 unit.
- Do not connect the drain pipe to the unit drain with a reducer.

NOTE

Never seal or pipe the safety overflow

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

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

NOTE

Contaminated wastewater and wastewater containing grease

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

- The unit complies with the current valid regulations (SVGW, KIWA, KIWA UK).
- The average wastewater temperature is 60 °C [140°F].
- When dimensioning the discharge, note that the steam generator's pumping rate is 0.5 l/s [0.13 gal/s] for a short time.
- If there is a floor drain without an odor seal, there must be a free outlet distance of 20 mm [0.75 inch].
- Each unit size can be connected to a wall drain or floor drain.

Requirements for unit size XS GN

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

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

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

Requirements for unit sizes 6-half size GN to 20-full size GN

NOTE

Overflow of the unit due to external siphon

The unit is already equipped with an integrated siphon. A second, external siphon (p trap) without ventilation of the drain section can cause the unit to overflow.

- Do not connect an external siphon to the wastewater connection without upstream ventilation.
- Ensure that there is a free outflow zone or vent at the wastewater connection.

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

Additional requirements for Combi-Duo

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

- A separate wastewater connection must be used for each unit.
- 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 units: A 110 mm [4.33 inch] unit extension and a height-adjustable transport trolley for mobile oven racks are available to increase ground clearance.
- Floor units: A unit extension and extension for the mobile oven rack are available to increase the ground clearance.

Additional requirements for the iCareSystem AutoDose option

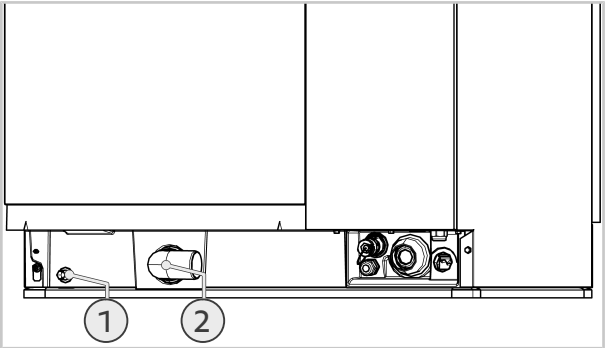
NOTE

Contamination of the cooking system due to well-dirty wastewater

Dirty waste water must not enter the cooking system or the drinking water network after cleaning.

- Do not install piping systems on the safety overflow.
- Do not combine the cooking system with other drain systems.

In addition to the requirements for tabletop units, observe the following for the option iCareSystem AutoDose (iCareSystem AutoDose [▷ 92]):



- The safety overflow (1) on the cooking system must always be free.
- The safety overflow (1) must not be combined with waste water or drain systems.
- The wastewater connection (2) must not be combined with other wastewater systems.

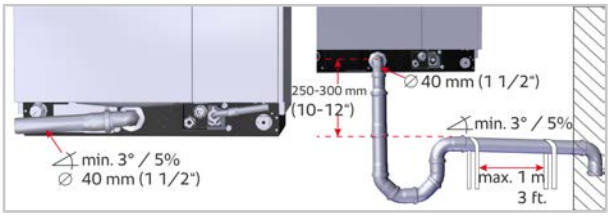
9.2 Connecting the wastewater drain

✔ The drain pipe is resistant to steam temperature.

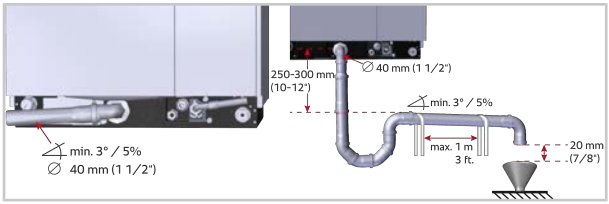
1. Connect the drain pipe DN 50 mm [2 inch] (for unit size XS: DN 40 mm [1.5 inch]) with a constant gradient of at least 5 % or 3° (1/4 inch/foot). Use a 90° elbow as the first pipe piece for the drain pipe.
2. Align the drain pipe to the side, straight or leading downwards.

Unit size XS GN

International exception: does not apply to Great Britain:



Only applies to Great Britain:



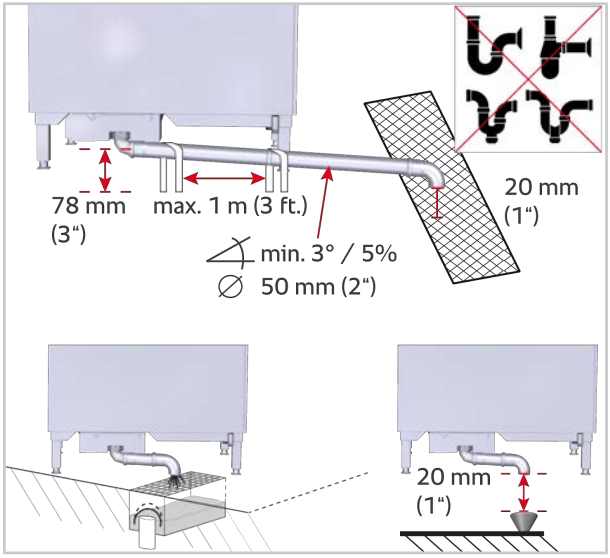
Unit sizes 6-half size GN to 10-full size GN

International - exception: does not apply for United Kingdom:

Only applies for United Kingdom:

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

Unit size 20-half size GN, 20-full size GN



The average height of the 90-degree pipe on the wastewater connection is 78 mm [3 inch].

9.3 Additional ventilation of the drain section (optional)

NOTE

Overflow of the unit due to external siphon

The unit is already equipped with an integrated siphon. A second, external siphon (p trap) without ventilation of the drain section can cause the unit to overflow.

- Do not connect an external siphon to the wastewater connection without upstream ventilation.
- Ensure 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.

- Remove the funnel from the ventilation pipe for cleaning.

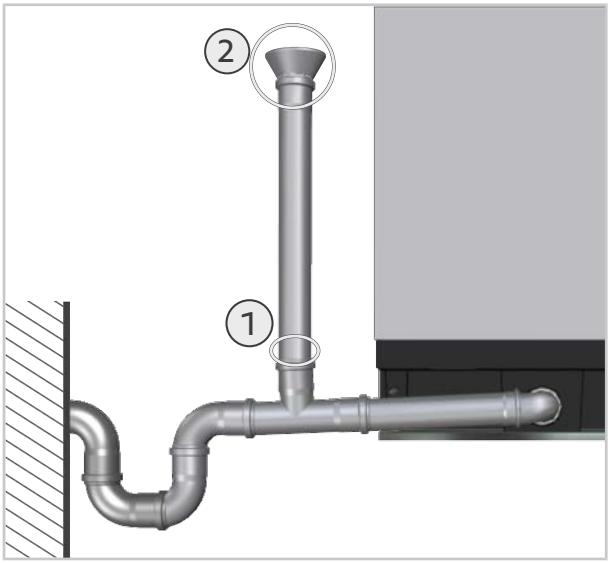
NOTE

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 unit requires additional ventilation of the drain section via a vent pipe which is attached to the drain pipe and prevents the unit from overflowing. This vent pipe is provided with holes (1) in the lower area to achieve a suction effect.
The ventilation pipe must be equipped 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 unit is switched off.
- ✔ The funnel must be removed from the unit 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 unit can be started up again.

10 Gas connection for gas units

This chapter only applies to gas units.

⚠ 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 unit.

⚠ DANGER

Risk of poisoning due to faulty gas connection

Risk of poisoning from CO and other toxic gas components

- Do not connect the units to networks containing carbon monoxide (CO) gasses or other toxic components.

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

⚠ DANGER

Modification of components with sealing varnish

Risk of injury and damage when modifying components sealed with varnish.

- Never modify components with sealing varnish (exception: CO_2 screw).
- If the sealing varnish is damaged, the affected components must be replaced before the unit is put into operation.

10.1 Gas connection regulations

NOTE

Exceeding the connection flow pressure

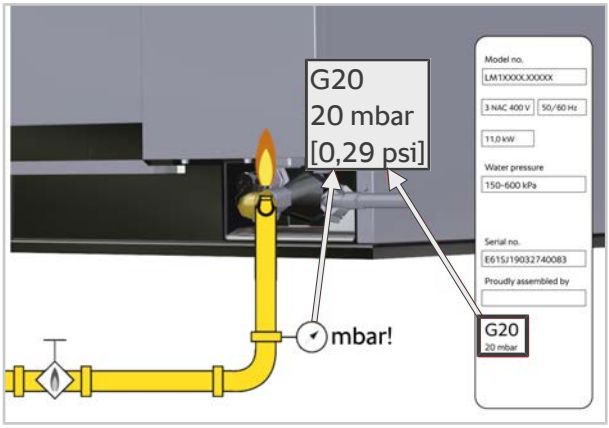
A connection flow pressure above 65 mbar [0.94 psi 26"w.c.] leads to a malfunction of the unit and damage of gas components.

- For natural gas, maintain the maximum connection flow pressure of 30.0 mbar [0.44 psi].
- For liquid gas, maintain the maximum connection flow pressure of 57.5 mbar [0.83 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 unit 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 unit matches the actual conditions for the local gas connection.

- The gas type and the dynamic connection pressure set in the unit must match the specifications on the type plate.



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

Requirements for gas supply and gas lines

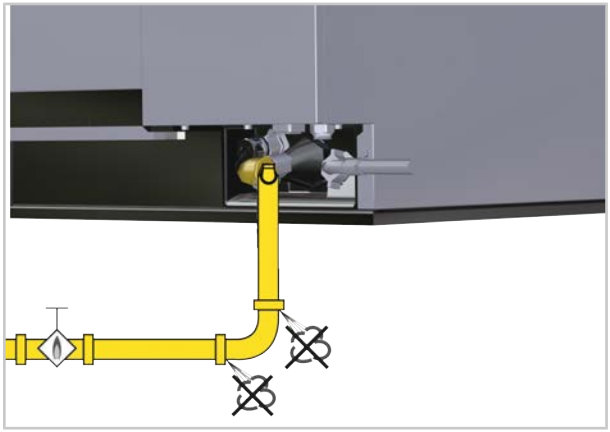
- The flue gas analysis may only be carried out by a technician authorized by the manufacturer. The flue gas analysis must be carried out before commissioning.
- The gas connection may only be carried out by a locally approved gas installer.
- The gas connection line must be designed for the nominal heat load specified on the type plate.
- The gas supply and gas distribution in the unit 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 for a single unit, line size must increase with increased number of units on same line.
- A gas shut-off valve must be installed upstream of each unit.
- All on-site connection parts must be tested in accordance with DIN-DVGW (the local regulations).
  The hose for the gas connection must not be longer than 2.0 m [78 3/4 inch].
- The gas line can be connected to a gas socket.
- A connection with the appropriate counterpart to the ¾ inch internal thread (RP thread) is required to connect the gas line.
- The unit must be secured against slipping (safety cable restraint)

- 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 adjusted as 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.

10.2 Connecting the unit to the gas supply

- ✔ The gas connection is equipped with an internal thread (RP thread). (use of supplied gas pipe adapter required) A suitable counterpart meeting the standards is available.
- ✔ An additional Teflon tape for sealing in the thread is available. The sealing agent must comply with the locally approved regulations.
- ✔ A gas shut-off valve is provided on-site.
- ✔ The gas type available and the dynamic connection pressure match the values on the unit type plate.
- ✔ The unit is secured against slipping (Safety cable restraint).
- ✔ The gas line is routed so that it cannot be kinked, turned or pulled. The gas line must be at a sufficient distance from heat sources.

1. Connect the gas pipe to the unit gas connection.
   > Make sure that the threads are screwed in far enough to ensure mechanical tightness and strength.
   For this, refer to regional standards and ISO 7/1.
2. Use a suitable gas leak detector to check the gas supply and gas distribution on the unit for leaks.



10.3 Gas consumption by gas type

Natural gas G20 USA

Parameters	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 - 10.0in/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
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)	49 ft^3/h	105 ft^3/h	83 ft^3/h	150 ft^3/h	157 ft^3/h	299 ft^3/h
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	49,500 BTU/hr	106,500 BTU/hr	83,500 BTU/hr	152,000 BTU/hr	159,500 BTU/hr	303,500 BTU/hr

Propane gas 3P G31 USA

Parameters	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	13.70 lb/h
Max. consumption at nominal heat load (at 15 °C, 1013 mbar)	48,500 BTU/hr	104,000 BTU/hr	82,000 BTU/hr	148,500 BTU/hr	156,000 BTU/hr	296,500 BTU/hr

11 Flue gas connection for gas units

This chapter only applies to gas units.

⚠ 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 unit.
- Install the unit under a kitchen ventilation system.

11.1 Regulations for flue gas connection

- The units 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.
- When using gas mixtures (natural gas H, natural gas L) with up to 20% hydrogen, set the exhaust gas value to the oxygen value O_2.
- Observe the maintenance instructions for gas components.
- The flue gas connection must comply with the regulations of NFPA 96.

Flue gas and room volume

The following values only apply to the individual unit:

Parameters	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	-
Max. combustion air supply (m^3/h)	21	45	35	64	70	128
Max. combustion air supply (ft^3/h)	741	1,589	1,236	2,260	2,472	4,520
Max. flue gas volume (m^3/h)	38	108	78	160	150	311
Max. flue gas volume (ft^3/h)	1,341	3,814	2,755	5,650	5,297	10,983
Max. flue gas temperature (°C)	350	520	470	590	430	520

Parameters	6-half size	6-full size	10-half size	10-full size	20-half size	20-full size
Max. flue gas temperature (°F)	662	968	878	1,094	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 cm^2 [23 ¼ in^2] (one near the ceiling, one near the floor).

Ventilation and air conditioning systems

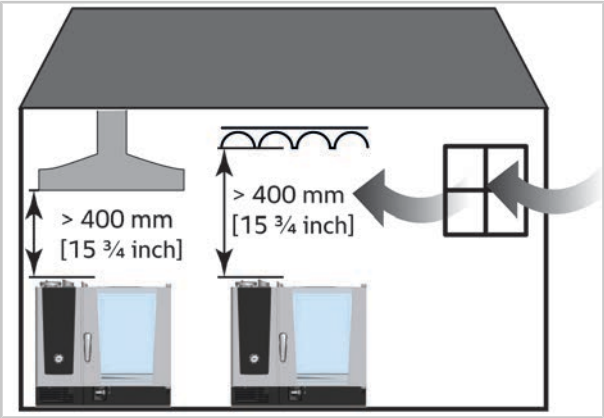
Kitchens in which gas units with a total nominal heat load of more than 50 kW are installed must be ventilated with ventilation and air conditioning systems. These air conditioning plants also secure combustion air supply for gas units if designed in accordance with VDI 2052.

11.2 Flue gas connection type A3 and B23

Requirements for unit size 6-half size GN

- The flue gas connection type A3 for this unit 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.
  If the total rated load is greater than 14 kW, the requirements for 6-full size - 20-full size GN also apply to unit size 6-half size (see Flue gas connection type A3 and B23 [▷ 88]).

- To avoid a fire hazard due to grease in the grease filter, a distance of 400 mm [15 ¾ inch] must be maintained between the flue gas pipes of the unit and the grease filters of the extractor hood/ventilation ceiling.

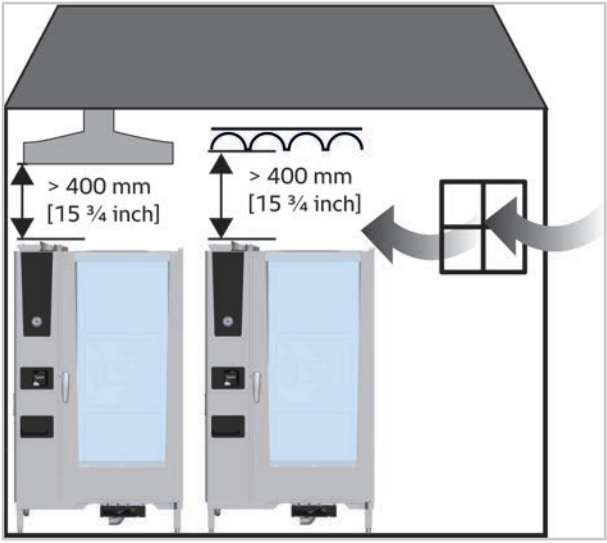


- It is not mandatory, but is recommended by the manufacturer, that the gas supply to the burners is only released when the extraction system is in operation.
- Updraft lines are not required.
- For the installation of gas units with a type A flue gas connection with a total rated load of less than or equal to 14 kW, it is sufficient if the installation site meets 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 unit sizes 6-full size GN to 20-full size GN

- The flue gas connection type B23 for these unit 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 ¾ inch] must be maintained between the flue gas pipes of the unit and the grease filters of the extractor hood/ventilation ceiling.



- Updraft lines are not required.
- The unit must be positioned directly under a kitchen ventilation system. The flue gases from the gas units with type A flue gas connection are first discharged into the room, flow directly into the kitchen ventilation system and are promptly discharged into the open air.
- 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 unit. 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 unit 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

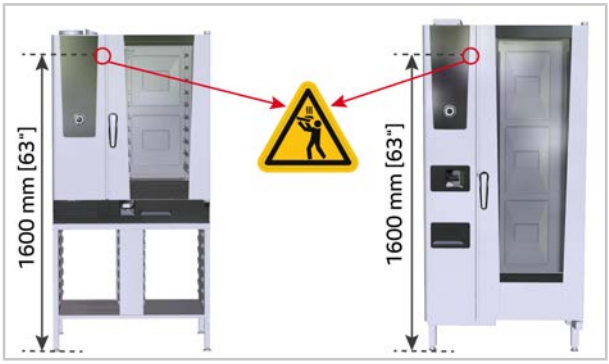
⚠ WARNING

Danger of scalding from liquids

Heating liquids and food that becomes liquid during heating can cause scalding.

- Only use viewable and easily observable cooking vessels.

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



Run software update

NOTE

Run software update

Always carry out a software update before commissioning. This means that your unit 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 unit is first commissioned. During the self-test, the unit is adapted to the ambient conditions.

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

Preparations

- The unit is properly connected to water, wastewater, electricity and, for gas units, to the gas supply and flue gas system as described in these instructions.
- Check that the pan rack hooks and the air baffle are correctly fitted.
- The left side wall is closed.
- One GN container per blower 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 blower wheel.

>> For unit sizes XS GN to 6-full size GN, there is a GN container in the center of the hang ladder in front of each fan wheel.

>> For unit 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 unit 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 cabinet door.
2. Start the self-test.

>> During the self-test, the unit 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.

12.3 iCareSystem AutoDose

*Only iCombi Pro, when ordering the iCareSystem AutoDose option. The option must be ordered separately and is available for the unit size 6-half size - 10-full size.
The option cannot be retrofitted.

Observe the regulations for waste water connection in the Waste water connection chapter (Regulations for the wastewater connection [▶ 76]).

⚠ WARNING

Risk of chemical burns from cleaning chemicals

There is a risk of burns during use due to deliberate and unwitting contact with cleaning chemicals.

- To reliably protect yourself for handling care products, wear close-fitting safety goggles and chemical protective gloves during installation and maintenance.

NOTE

Risk of damage from water jets

Cleaning with jets of water can damage the iCareSystem AutoDose.

- Never clean the iCareSystem AutoDose with mechanical cleaning units.
- Clean the iCareSystem AutoDose according to the instructions in the original operating instructions.

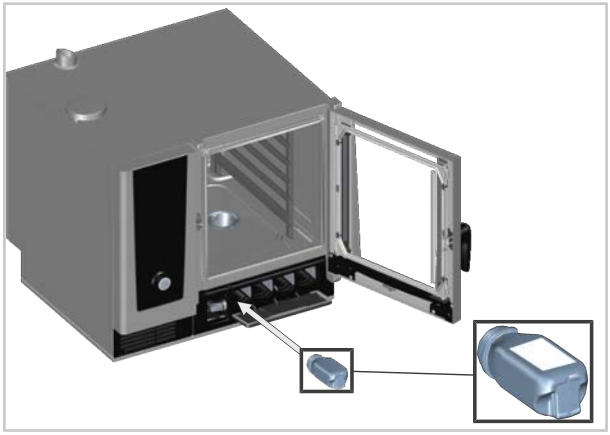
Inserting cartridges

- ✔ The cooking system is connected in accordance with the local regulations described in this installation manual.
- ✔ Start by opening the cooking cabinet door.
- ✔ The cleaner and care cartridges are open.

1. Open the cover flap for the iCareSystem AutoDose.
   Carefully open the cover flap underneath the cooking cabinet downwards.

2. Insert the cartridges into the holder.
3. Insert the cartridge into the holder with the label facing up.

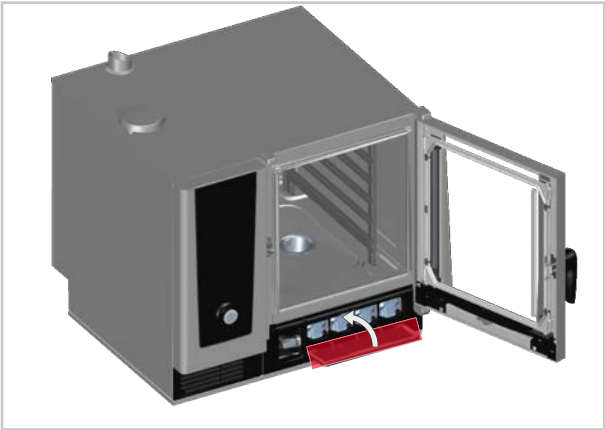
4. Push the cartridge into the holder until you feel it click into place.



> Insert cleaner and care cartridges. A total of four cartridges can be inserted. Operation is also possible with fewer cartridges.

> You do not need to follow a sequence when inserting the cartridges.

5. Close the cover flap for the iCareSystem AutoDose.



> Cleaning does not start if the cover flap is not properly closed.

>> The cartridges with the cleaning chemicals have been successfully inserted.

See also

Regulations for the wastewater connection [▷ 76]

13 maintenance

13.1 Maintenance notes

Notes on gas units

- 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 units, 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 unit 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

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

14 Decommissioning

14.1 Notes on decommissioning

Observe the following when decommissioning the cooking system:

- Make sure that the unit 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 unit is de-energized and disconnected from the power supply.
- Remove all water, wastewater and, for gas units, additional gas connections from the unit.
- If the cooking system is to be transported, remove it from its foot locking mechanisms and from any wall mountings (mounting chain).

Option iCareSystem AutoDose

- Make sure that the mix box of the iCareSystem AutoDose has been emptied.
- Remove cartridges from cooking system. These can be closed and reused.

14.2 Disposal

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

- Do not dispose of the unit 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.

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