

Convotherm maxx pro

high definition



Combi oven
Convotherm maxx pro

C4 table-top units
Installation manual - Original, ENG

Advancing Your Ambitions

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1 General information

1.1 Environmental protection

Statement of principles

Our customers' expectations, the legal regulations and standards and our company's own reputation set the quality and service for all our products.

We have an environmental management policy that not only ensures compliance with all environmental regulations and laws, but also commits us to continuous improvement of our green credentials.

We have developed a quality and environmental-management system in order to guarantee the continued manufacture of high-quality products, and to be sure of meeting our environmental targets.

This system satisfies the requirements of ISO 9001:2015 and ISO 14001:2015.

Environmental protection procedures

We observe the following procedures:

- Use of residue-free compostable wadding materials
- Use of RoHS-compliant products
- REACH chemical law
- Recommendation and use of bio-degradable cleaning agents
- Recycling of electronic waste
- Environmentally friendly disposal of old appliances via the manufacturer

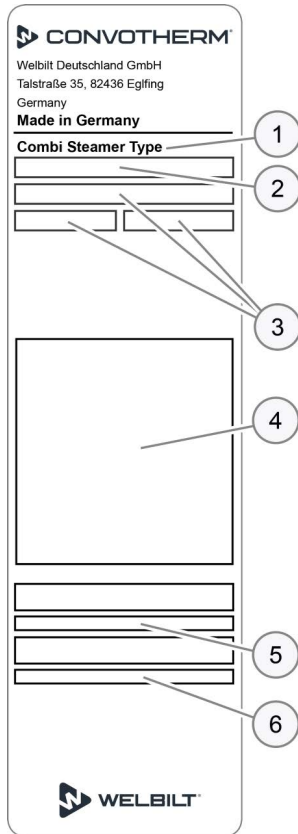
Join us in our commitment to protect the environment.

1.2 Identifying your combi oven

Position of type plate

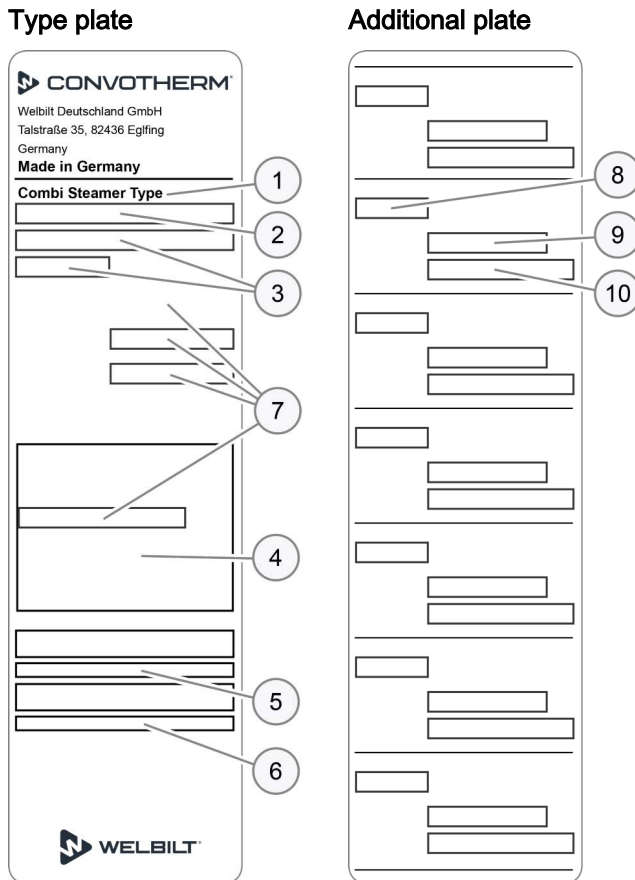
The type plate is located on the left-hand side of the combi oven.

Layout of the type plate on electric appliances



Item	Name	
1	Name of appliance Combi oven	
2	Trade name	
	Element	Meaning
	C4	Convotherm maxx pro appliance series
	eT	easyTouch controls
	eD	easyDial controls
	numbers xx.yy	Appliance size
	EB	Electric appliance with boiler
	ES	Electric appliance with water injection
	-N	for appliances with an NSF certificate
3	Electrical values	
4	Certification marks	
5	Serial number	
	Element	Meaning
	Heating method	Electric appliance (X)
	Steam generation method	<ul style="list-style-type: none"> ▪ Injection (S) ▪ Boiler (B)
	Appliance size	<ul style="list-style-type: none"> ▪ 6.10 (1) ▪ 6.20 (2) ▪ 10.10 (3) ▪ 10.20 (4)
	Year of manufacture	<ul style="list-style-type: none"> ▪ 2021 (21) ▪ 2022 (22) ▪ ...
	Month of manufacture	<ul style="list-style-type: none"> ▪ January (01) ▪ February (02) ▪ March (03) ▪ ...
	Sequential number	4 digits
6	Part number	

Layout of the type plate on gas appliance



Name	
1	Name of appliance Combi oven
2	Trade name
Element	Meaning
C4	Convotherm maxx pro appliance series
eT	easyTouch controls
eD	easyDial controls
numbers xx.yy	Appliance size
GB	Gas appliance with boiler
GS	Gas appliance with water injection
-N	for appliances with an NSF certificate
3	Electrical values
4	Certification marks
5	Serial number
Element	Meaning
Heating method	Gas appliance (Y)
Steam generation method	<ul style="list-style-type: none"> ▪ Injection (S) ▪ Boiler (B)
Appliance size	<ul style="list-style-type: none"> ▪ 6.10 (1) ▪ 6.20 (2) ▪ 10.10 (3) ▪ 10.20 (4)
Year of manufacture	<ul style="list-style-type: none"> ▪ 2021 (21) ▪ 2022 (22) ▪ ...
Month of manufacture	<ul style="list-style-type: none"> ▪ January (01) ▪ February (02) ▪ March (03) ▪ ...
Sequential number	4 digits
6	Part number
7	Gas data
8	Country code
9	Gas category
10	Gas factory setting for the appliance

1.3 Structure of customer documentation

Contents of the appliance documentation

Book type	Contents
Installation manual	<ul style="list-style-type: none"> ▪ Describes how to move, set up and install the appliance, and how to put the appliance into service ▪ Describes the hazards and appropriate preventive measures relevant to all installation tasks ▪ Contains the technical data
User manual	<ul style="list-style-type: none"> ▪ Describes the working procedures and operating steps for cooking and cleaning ▪ Contains the servicing schedule and information on troubleshooting ▪ Describes the hazards and appropriate preventive measures relevant to operation
Operating instructions	<ul style="list-style-type: none"> ▪ Describes the appliance user interface ▪ Contains instructions on how to use the software

Documentation for accessories

Please refer to the relevant instructions for the accessory concerned (e.g. recoil hand shower, hood, wheeled stand, stacking kit) for information on how to install the accessory.

1.4 About this installation manual

Who should read this manual

Name of target group	Tasks
Start-up engineer (Service engineer)	<ul style="list-style-type: none"> ▪ Overall responsibility for putting the combi oven into service ▪ Instructing the user
Owner of the combi oven or owner's member of staff who is responsible for the appliance and for the operating personnel	<ul style="list-style-type: none"> ▪ Made aware of all safety-related functions and devices of the combi oven by the start-up engineer ▪ Instructed by the start-up engineer on how to operate the appliance ▪ Provides assistance as instructed with conveying the appliance within the establishment and setting up the appliance. <p>See 'Owner obligations' on page 19 for further details</p>
Equipment mover	Conveying within the establishment
Service engineer	<ul style="list-style-type: none"> ▪ Setting up the appliance ▪ Installation of the network port ▪ Installing the fully automatic oven cleaning system (optional) ▪ Putting the appliance into service and removing the appliance from service
Electrical installation engineer	<ul style="list-style-type: none"> ▪ Connecting the appliance to the building's electrical supply ▪ Disconnecting the electrical connection
Plumber	<ul style="list-style-type: none"> ▪ Connecting the appliance to the building's water supply ▪ Disconnecting the water connection ▪ Connecting the appliance to the building's drain connection ▪ Disconnecting the drain connection
Gas installation engineer	Installing and removing the gas connection

Notation for decimal points

A decimal point is always used in order to achieve international standardization.

1.5 Essential reading relating to safety

Safety information in the customer documentation

Safety information relating to the combi oven appears only in the installation manual and the user manual.

The installation manual contains the safety information for the tasks covered by the manual and which are performed when moving, setting up and installing the appliance and when putting the appliance into service and removing the appliance from service.

The user manual contains the safety information for the tasks covered by the manual and which are performed during cooking, cleaning and servicing work.

The safety information contained in the user manual and installation manual must always be considered to be part of the operating instructions. The safety information contained in the user manual and installation manual must always be observed when performing tasks that go beyond merely operating the software.

Parts of this document that must be read without fail

If you do not follow the information in this document, you risk potentially fatal injury and property damage.

To guarantee safety, all people who work with the combi oven must have read and understood the following parts of this document before starting any work:

- the chapter 'For your safety' on page 15
- the sections that describe the activity to be carried out

Danger symbol




Danger symbol	Meaning
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Warns of potential injuries. Heed all the warning notices that appear after this symbol to avoid potential injuries or death.

Form of warning notices

The warning signs are categorized according to the following hazard levels:

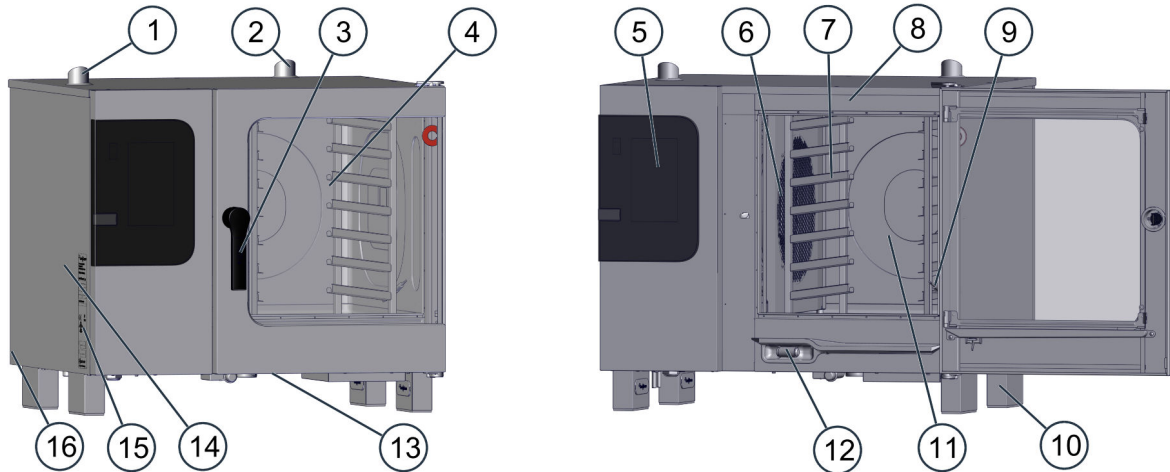
Hazard level	Consequences	Likelihood
 DANGER	Death / serious injury (irreversible)	Immediate risk
 WARNING	Death / serious injury (irreversible)	Potential risk
 CAUTION	Minor injury (reversible)	Potential risk
NOTICE	Damage to property	Potential risk

2 Design and function

2.1 Design and function of the combi oven

Components and function (electric appliances)

The following illustration shows a size 6.10 combi oven as an example for all electric appliances:

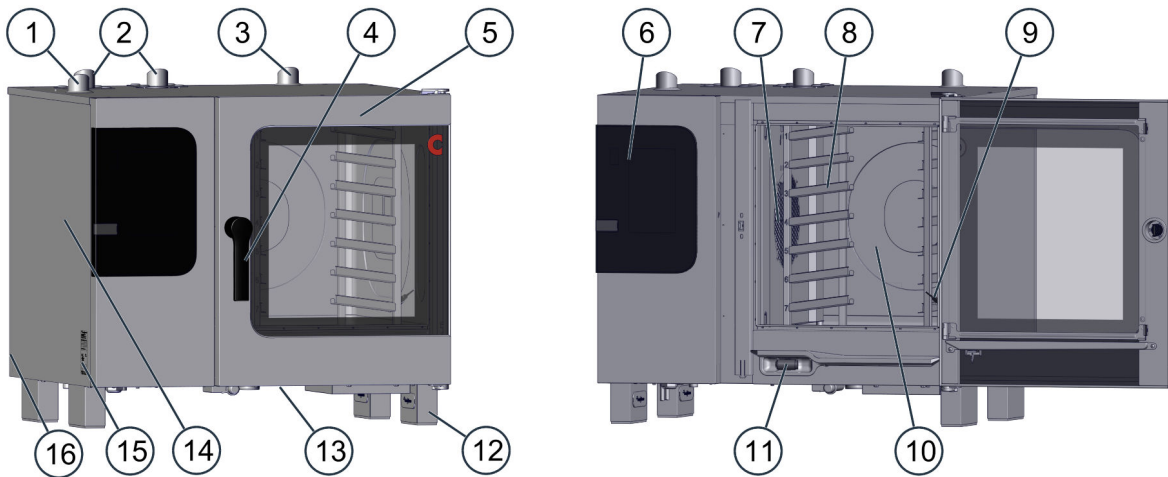


Item	Name	Function
1	Ventilation port	<ul style="list-style-type: none"> External air intake for removing the moisture from the cooking chamber Smooths out any pressure fluctuations in the cooking chamber
2	Air vent	Allows hot vapour to escape
3	Door handle	<ul style="list-style-type: none"> Opens and closes the appliance door Venting position for opening the appliance safely ("safety catch") Sure-shut function Antibacterial material containing silver ions ("HygieniCare")
4	Appliance door	<ul style="list-style-type: none"> Closes the cooking chamber Can slide back beside the appliance when opened in order to save space ("disappearing door") (optional)
5	Operating panel	<ul style="list-style-type: none"> Used for operating the appliance Antibacterial ("HygieniCare")
6	Suction panel	<ul style="list-style-type: none"> Distributes the heat evenly inside the cooking chamber Separates the fan compartment from the cooking chamber
7	Rack	Holds standard-sized food containers
8	Camera (not shown)	Recognizes the food to be cooked with the ConvoSense assistance system (optional)
9	Core temperature probe, sous-vide sensor (optional)	<ul style="list-style-type: none"> Measures the core temperature of the food being cooked Available in two connection options: permanent internal connection or temporary external connection
10	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
11	Cooking chamber	Contains the food during cooking operation
12	Recoil hand shower (this is not fitted on certain appliances)	<ul style="list-style-type: none"> Intended solely for rinsing out the cooking chamber with water Retracts automatically into the holder after use Antibacterial ("HygieniCare")
13	Ventilation slots underneath the appliance	<ul style="list-style-type: none"> Used for appliance ventilation Must not be covered

Item	Name	Function
14	Side panel	Covers the appliance wiring compartment
15	Type plate	Identifies the appliance
16	Network connection	Used for connecting to a network or to the cloud

Components and function (gas appliances)

The following illustration shows a size 6.10 combi oven as an example for all gas appliances:

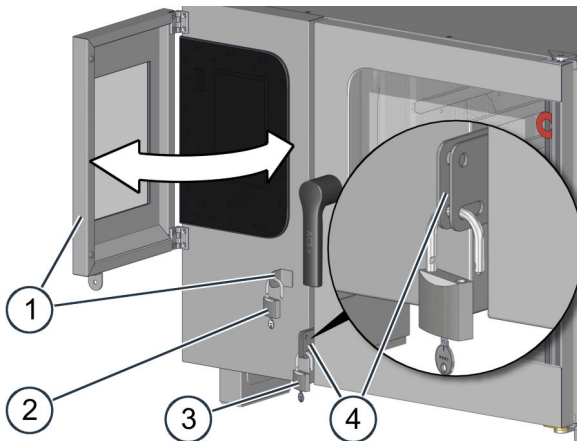


Item	Name	Function
1	Ventilation port	<ul style="list-style-type: none"> External air intake for removing the moisture from the cooking chamber Smooths out any pressure fluctuations in the cooking chamber
2	Exhaust outlet	Takes away hot exhaust gases
3	Air vent	Allows hot vapour to escape
4	Door handle	<ul style="list-style-type: none"> Opens and closes the appliance door Venting position for opening the appliance safely ("safety catch") Sure-shut function Antibacterial material containing silver ions ("HygieniCare")
5	Appliance door	<ul style="list-style-type: none"> Closes the cooking chamber Can slide back beside the appliance when opened in order to save space ("disappearing door") (optional)
6	Operating panel	<ul style="list-style-type: none"> Used for operating the appliance Antibacterial ("HygieniCare")
7	Suction panel	<ul style="list-style-type: none"> Distributes the heat evenly inside the cooking chamber Separates the fan compartment from the cooking chamber
8	Rack	Holds standard-sized food containers
9	Core temperature probe, sous-vide sensor (optional)	<ul style="list-style-type: none"> Measures the core temperature of the food being cooked Available in two connection options: permanent internal connection or temporary external connection
10	Cooking chamber	Contains the food during cooking operation
11	Recoil hand shower (this is not fitted on certain appliances)	<ul style="list-style-type: none"> Intended solely for rinsing out the cooking chamber with water Retracts automatically into the holder after use Antibacterial ("HygieniCare")
12	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
13	Ventilation slots underneath the appliance	<ul style="list-style-type: none"> Used for appliance ventilation Must not be covered

Item	Name	Function
14	Side panel	Covers the appliance wiring compartment
15	Type plate	Identifies the appliance
16	Network connection	Used for connecting to a network or to the cloud

Components and function of the special security mechanism (prison model only)

The following illustration shows the optional special security mechanism for a size 6.10 gas combi oven as an example of all appliance sizes:



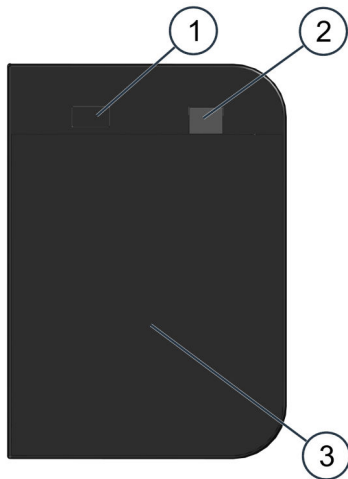
Item	Name	Function
1	Lockable cover to the operating panel	The hinged cover can be closed over the operating panel and locked to the appliance case in order to prevent unauthorized use of the combi oven.
2	Padlock	<ul style="list-style-type: none"> ▪ To lock the operating panel cover to the appliance case ▪ Not supplied
3	Padlock	<ul style="list-style-type: none"> ▪ To lock the appliance door to the appliance case ▪ Not supplied
4	Locking mechanism for the appliance door	<p>Provides a two-stage lock for the appliance door to prevent unauthorized opening and closing of the appliance door</p> <p>Behaviour of the appliance door:</p> <ul style="list-style-type: none"> ▪ When the top locking position is used, the appliance door remains fully closed. ▪ When the bottom locking position is used, the appliance door can be opened as far as the venting position.

Material

The interior and exterior structure of the appliance is made of stainless steel.

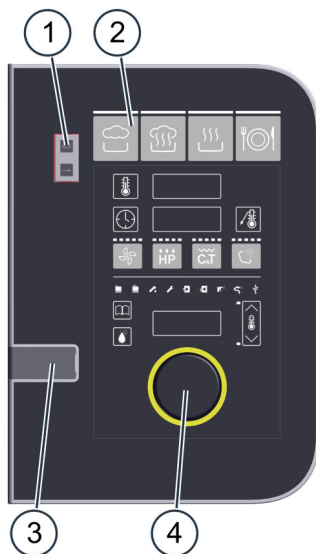
2.2 Layout and function of the operating panel

Layout and elements of the easyTouch operating panel



Item	Name	Function
1	Appliance ON/OFF switch	Switches the combi oven on and off
2	USB port	For connecting a USB stick
3	Full touch screen display	Central controls for appliance <ul style="list-style-type: none"> ▪ Appliance operated by touching icons on the control panel (full touch screen display) ▪ Status displays

Layout and elements of the easyDial operating panel



Item	Name	Function
1	Appliance ON/OFF switch	Switches the combi oven on and off
2	Control panel	Central controls for appliance <ul style="list-style-type: none"> ▪ Buttons for entering the cooking programs ▪ Displays showing the values you have set ▪ Prompts for the user
3	USB port	For connecting a USB stick
4	C-Dial	Combined rotary knob and pushbutton for adjusting and setting the cooking parameters.

3 For your safety

Purpose of this chapter

This chapter provides you with all the information you need in order to use the combi oven safely without putting yourself or others at risk.

This is a particularly important chapter that you should read through carefully.

3.1 Basic safety code

Object of this safety code

This safety code aims to ensure that all persons who use the combi oven have a thorough knowledge of the hazards and safety precautions, and that they follow the warning notices given in the user manual and on the combi oven. If you do not follow this safety code, you risk potentially fatal injury and property damage.

Referring to the user manuals included in the customer documentation

Follow the instructions below:

- Read in full the chapter 'For Your Safety' and the chapters that relate to your work.
- Always keep to hand the manuals included in the customer documentation for reference.
- Pass on the user manuals included in the customer documentation with the combi oven if it changes ownership.

Ground rules for installation

Installation must comply with all national and regional laws and regulations and comply with the local regulations of the relevant utility companies and local authorities and with other relevant requirements.

In Australia and New Zealand, these regulations also include (amongst other regulations):

- AS 5601/AG 601

Working with the combi oven

Follow the instructions below:

- Only those persons who satisfy the requirements stipulated in this user manual are permitted to use the combi oven.
- Only use the combi oven for the specified use. Never, under any circumstances, use the combi oven for other purposes that may suggest themselves.
- Take all the safety precautions specified in this user manual and on the combi oven. In particular, use the prescribed personal protective equipment.
- Only stand in the working positions specified.
- Do not make any changes to the combi oven, e. g. removing parts or fitting unapproved parts. In particular, you must not disable any safety devices.

More on this ...

Related topics

▷ Intended use of your combi oven	17
▷ Warning signs on the combi oven	18
▷ Owner obligations	19
▷ Hazards arising from the appliance	21
▷ Safety devices	24
▷ Requirements to be met by personnel, working positions	26
▷ Personal protective equipment	28

3.2 Intended use of your combi oven

Intended use

- The combi oven is designed and built solely for cooking different foodstuffs in standard-sized food containers (e.g. Gastronorm containers, standard baking trays). Steam, convection and combi-steam (non-pressurized superheated steam) are used for this purpose.
- The food containers can be made of stainless steel, ceramic, plastic, aluminium, enamelled steel or glass. Glass food containers must not exhibit any form of damage.
- The combi oven is intended solely for professional, commercial use.

Restrictions on use

Some materials are not allowed to be heated in the combi oven:

- NO dry powder or granulated material
- NO highly flammable objects with a flash point below 270 °C, such as highly flammable oils, fats, plastics, cleaning products or alcohol-based fluids
- NO food in sealed tins or jars

Requirements to be met by personnel

- The combi oven must only be operated and installed by personnel who satisfy specific requirements. Please refer to 'Requirements to be met by personnel, working positions' on page 26 for the training and qualifications requirements.
- Personnel must be aware of the risks and regulations associated with handling heavy loads.

Requirements relating to the operating condition of the combi oven

- The combi oven must only be operated when all safety devices and protective equipment are fitted, in working order and fixed properly in place.
- The manufacturer regulations for operating and servicing the combi oven must be observed.
- The combi oven must not be loaded over the maximum permissible loading weight for the given model or shelf allowance; see 'Technical Data' on page 84.

Requirements relating to the operating environment of the combi oven

Specified operating environment for the combi oven

- The ambient temperature lies between +4 °C and +35 °C
- NOT a toxic or potentially explosive atmosphere
- Dry kitchen floor to reduce the risk of accidents

Specified properties of the installation location

- NO fire alarm, NO sprinkler system directly above the appliance
- NO flammable materials, gases or liquids above, on, beneath or in the vicinity of the appliance

Mandatory restrictions on use

- Shelter from rain and wind must be provided if operated outdoors
- Appliance must NOT be shifted or moved during use

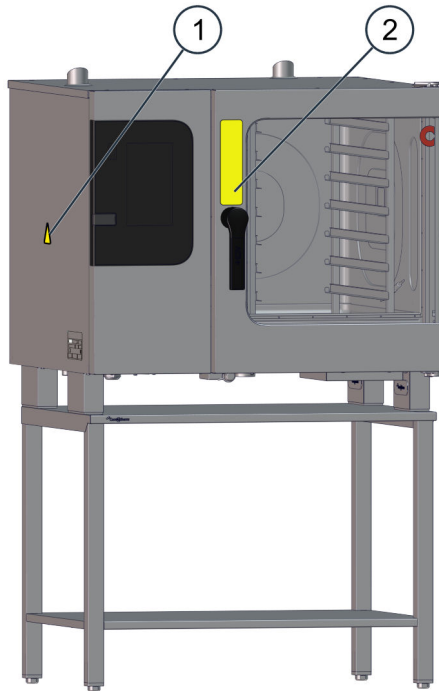
Cleaning requirements

- Use only cleaning agents that have been approved by the manufacturer.
- Use only materials specified by the manufacturer for cleaning; please refer to the 'Cleaning instructions' in the User manual.
- High-pressure cleaners must NOT be used for cleaning.
- Water jets must NOT be used for cleaning the exterior. The water spray of the recoil hand shower or an external water spray is permitted solely for cleaning the cooking chamber.
- The combi oven must NOT be treated with acids or exposed to acid fumes, except for the purpose of descaling the cooking chamber by an authorized service company in accordance with the manufacturer's instructions.

3.3 Warning signs on the combi oven





Positioning of warning signs

The following illustration shows a size 6.10 electric combi oven as representative of all table-top units:



Obligatory warning signs

The following warning signs must be attached to the combi oven and optional accessories in the area indicated so as to be easily visible at all times.

Range	Warning sign	Description
1		High voltage / electric shock hazard warning There is a risk of electric shock from live parts if the safety cover is opened.
2		Hot steam and vapour hazard warning There is a risk of scalding from hot steam and vapour escaping when the appliance door is opened.
2		Standard model Warning of hot liquids Spillage of hot liquid foods can result in scalds if the upper shelf levels are loaded with liquids or with foods that produce liquid during cooking. Do not use shelf levels that lie above your sightline for liquid food-stuffs or food that will liquefy during cooking.
2		Bakery model Warning of hot food, hot food containers There is a risk of burns from hot food and hot food containers if food containers tip out of the shelf levels or food slips off food containers that are not held level. This risk is particularly high for shelf levels that lie above the sightline of the user.

3.4 Owner obligations

Personnel for working at the combi oven

The owner must ensure that all work relating to conveying, setting up and installing the appliance, and taking the appliance out of service, is performed solely by qualified personnel as specified in 'Requirements to be met by personnel, working positions' on page 26.

Personnel for working on electrical parts

The owner/operator must ensure that only qualified electricians carry out installation, putting into service, servicing, maintenance or repair work on the combi oven.

Electrical installation, putting into service, servicing, maintenance, repair and testing work on the combi ovens must be carried out solely by authorized service representatives and in accordance with the documentation specified by Convothem for initial start-up, servicing, maintenance and repair.

The required tasks must be performed solely by qualified electricians who are suited to do so because of their training and recent professional experience and who have the requisite knowledge of relevant standards, rules and accident prevention regulations.

Every qualified electrician who carries out installation, initial start-up, service, maintenance or repair work must have read and understood the installation manual.

Rules for working on electrical parts

The combi oven's electrical connection must be made in accordance with the respective valid regulations, accepted engineering standards and the procedures listed in the installation manual.

Before putting the appliance into service and after any servicing, maintenance or repair work, electrical safeguards and all protective equipment (mechanical and electrical) must be checked for compliance and proper function, and, if stipulated by applicable regulations, relevant measurement-based verification and documentation provided.

Before starting any work, the appliance must be disconnected from the power supply, protected against being switched on again, and checked to verify that it is actually de-energized.

After de-energization has been ascertained, a waiting time of at least 15 minutes is mandatory to allow full discharge of the DC bus capacitors.

To ensure operational and functional safety, all electrical connections must be checked and all mandatory electrical tests required for putting the appliance into service and operating the appliance must be carried out.

Regulations for the gas installation

The building regulations and technical requirements that apply at the installation site concerned for installing gas appliances must be observed. The gas installation must be performed in accordance with the regulations of the gas provider.

The gas fitter must not open any parts sealed by the manufacturer or the manufacturer's authorized agents.

The following regulations apply in Germany to the fixed connection and to the LPG gas connection:

- Technische Regeln Gasinstallation TRGI (German technical regulations for gas installation); equivalent to DVGW Arbeitsblatt G600
- Technische Regeln Flüssiggas TRF (Technical regulations for liquid gas)
- Druckbehälterverordnung including the TRG (Pressurized container regulation plus technical regulations for pressurized gases)
- DVGW Arbeitsblatt G631 (DVGW worksheet)
- DVGW Arbeitsblatt G21 (DVGW worksheet)
- Unfallverhütungsvorschrift "Verwendung von Flüssiggas" (Accident prevention regulations "Use of LPG" (BGV D34/previously VGB 21))
- Unfallverhütungsvorschrift "Gase" (Accident prevention regulations "Gases" (BGV B6/previously VGB 61))
- Unfallverhütungsvorschrift Arbeiten an Gasleitungen (German accident prevention regulations "Work on gas pipelines" (BGR 500 section 2.31/GUV-R500 section 2.31))
- VDI Directive 2052: Kitchen air conditioning and ventilation systems
- Feuerungsanlagenverordnung (FeuVO, FAV = Combustion equipment regulation) for each of the federal states

3.5 Hazards arising from the appliance

General rules for working with the appliance

The combi oven is designed to protect the user from all hazards that can reasonably be avoided by design measures.

The actual purpose of the combi oven, however, means that there are still residual risks; you must therefore take precautions to avoid them. A safety device can provide you with a certain degree of protection against some of these hazards. You must always ensure, however, that these safety devices are in place and in working order.

The nature of these residual risks and what effect they have are described below.

Escaping gas while putting into service

The following hazards can result due to gas escaping while putting the appliance into service:



Explosion hazard from gas

What can cause this?

- If the appliance is moved and connections become leaky as a result
- If the gas pipe is damaged.

How can I avoid the hazard?

- ▷ Never move the appliance during use or cleaning
- ▷ For appliances on a wheeled platform, see the corresponding documentation for accessories
- ▷ If you smell gas, take the appropriate steps; see 'What to do if you smell gas' on page 78

Escaping gas when installing the appliance and removing the appliance from service

Escaping gas due to faulty installation and removal of the appliance from service can cause the following hazards:



Explosion hazard from gas

What can cause this?

- If gas pipes are leaking
- If the customer's gas tap is opened before the gas connection has been fully installed
- During removal from service, if the gas supply system has not been disconnected before starting work on the gas installation

How can I avoid the hazard?

- ▷ Any work on the gas installation must be entrusted solely to certified gas installation engineers from an authorized service company
- ▷ Install gas shut-off device close to appliance
- ▷ For appliances on a wheeled platform with a flexible supply hose, ensure that a retaining device which restricts the range of movement of the platform with the appliance is connected; see the corresponding documentation for accessories.
- ▷ After connecting to the gas supply and after any subsequent operation on gas components, always leak-test every connection and supply point for the gas components to ensure they are gastight.
- ▷ Ensure that all the specified points inside and outside the appliance are gastight before putting the combi oven into service.
- ▷ Always disconnect the gas supply system before starting work on the gas installation for the purpose of removal from service

Lack of oxygen

In the kitchen, gas appliances can cause the following hazards:



Risk of suffocation from lack of breathable air

Where?

- Where appliance is installed

How can I avoid the hazard?

- ▷ Check the exhaust gas readings and if the readings are not acceptable, get a certified gas installation engineer from an authorized service company to adjust the burner
- ▷ Ensure that a ventilation system is in place, is working properly and is running, and that the ventilation requirements stipulated by the gas installation engineer are met
- ▷ Do not obstruct lower area of equipment
- ▷ Only operate appliance in a draught-free environment

Moving heavy loads

When conveying and setting up the appliance, the following hazards can arise when moving heavy loads:



Risk of injury from overstressing your body

When?

- When moving or lifting the appliance

How can I avoid the hazard?

- ▷ Use a forklift truck or pallet truck to place the appliance in the installation position or to move it to a new position
- ▷ Always use the correct number of persons and observe the limits specified for lifting and carrying when adjusting the appliance position (guide value: 15 to 55 kg max., depending on age and gender)
- ▷ Observe the local occupational safety regulations
- ▷ Wear personal protective equipment

Loss of stability of appliance

When conveying and setting up the appliance, the following hazards can arise when moving the appliance:



Risk of body parts being crushed if the appliance is dropped

When?

- When moving or lifting the appliance

How can I avoid the hazard?

- ▷ Use suitable handling gear
- ▷ Move the appliance slowly and carefully, and secure it against tipping over
- ▷ Be aware of the centre of gravity to keep the appliance balanced
- ▷ Avoid jolts

Live parts

The following hazards can arise at the appliance when performing any installation work:



Risk of electric shock from live parts

Where?

- Under covers
- Under the operating panel
- On the mains power lead

How can I avoid the hazard?

- ▷ Switch off all connections to the power supply
- ▷ Take protective measures at every power switch to ensure that the power cannot be switched on again
- ▷ Wait 15 minutes to allow the DC bus capacitors to discharge
- ▷ Ensure that all electrical connections are in perfect condition and fixed securely
- ▷ Make sure that the statutory safety checks have been carried out.

Protective equipotential bonding not in place

The following hazards can arise at the appliance when performing any installation work:



Risk of electric shock from live parts

Where?

- On the appliance and on adjacent metal parts
- On the appliance and on adjacent metallic accessories

How can I avoid the hazard?

- ▷ Before preparing the appliance for first-time use, make sure that the appliance, including all metallic accessories, is connected to a equipotential bonding system

Contact with cleaning agents

The following hazards can arise at the appliance when performing any installation work:



Risk of chemical burns or irritation to skin, eyes and respiratory system from contact with cleaning agents and their fumes.

When?

- When fitting the cleaning system
- When handling cleaning-fluid canisters
- When abrasive cleaning products are used

How can I avoid the hazard?

- ▷ Wear personal protective equipment
- ▷ Observe the labels on the cleaning agents and the relevant safety datasheets
- ▷ Always use the specified cleaning products

General hazards

Over and above the hazards mentioned here, also be aware of the general dangers associated with the kitchen environment; please refer to the chapter 'For your safety' in the User manual.

3.6 Safety devices

Meaning

The combi oven has a number of safety devices to protect the user from hazards. It is absolutely essential that all safety devices are fitted, secured correctly and in working order when operating the combi oven.

Position and function

The following illustration shows a size 6.10 electric combi oven as representative of all table-top units:



Item	Protective device	Function	Check
1	Cover can only be removed using tool	<ul style="list-style-type: none"> ▪ Prevents live parts from being touched accidentally ▪ Prevents access to the moving fan from the wiring compartment 	Check that the cover is in place
2	Operating panel can only be removed using a tool	Prevents live parts from being touched accidentally	Ensure that the operating panel is in place
3	Appliance door	Protects the user and outside environment from hot steam	Check the door pane regularly for scratches, cracks, indentations etc. and replace it if any are found
4	Suction panel in cooking chamber; can only be removed using a tool	Prevents access to the moving fan and ensures good heat distribution	See 'Releasing and securing the suction panel' in the user manual
5 (no picture)	Safety thermostat <ul style="list-style-type: none"> ▪ Boiler ▪ Cooking chamber 	Switches off the appliance if temperature too high	An error code is output in the event of a fault (Please contact an authorized service company to reset the safety thermostat)

Item	Protective device	Function	Check
6 (installed by customer)	Disconnecter	<ul style="list-style-type: none"> Installed by the customer close to the appliance; easily visible and accessible, 3-pole action, minimum contact separation 3 mm. Used to disconnect the appliance from the power supply during cleaning, repair and servicing work and in a hazardous situation 	Action: <ul style="list-style-type: none"> Trip the disconnecter Check at the -X10 terminal strip on the appliance that none of the three phases carry a live voltage
7 (installed by customer)	Gas shut-off device	<ul style="list-style-type: none"> Installed by customer close to appliance in easily accessible position and clearly labeled Used to disconnect the appliance from the gas supply during cleaning, repair and servicing work and in a hazardous situation 	Action: <ul style="list-style-type: none"> Close gas shut-off device Check that the appliance is isolated from the gas supply

Safety measures

The following measures increase the safety additionally:

Measure	Function	Check
Magnetic switch for appliance door (electric door sensor)	<ul style="list-style-type: none"> When the appliance door is opened, the switch stops: <ul style="list-style-type: none"> rotation of the fan wheel (comes to a stop after a few seconds) operation of the heating element Distribution of the cleaning products by the fully automatic oven cleaning system Prompt to close the appliance door 	Check magnetic door switch at low temperature Action: <ul style="list-style-type: none"> Open the appliance door fully Press Start Result: Motor must not start up.
Appliance door handle with venting position	<ul style="list-style-type: none"> Prevents scalding of user's face and hands from escaping steam 	When appliance is at low temperature, check door positions as described in 'Opening and closing the appliance door safely' in the user manual
Restart after power failure in case cleaning agent was left in the appliance	<ul style="list-style-type: none"> Restarts fully automatic oven cleaning in a defined state after power failure 	None

3.7 Requirements to be met by personnel, working positions

Requirements to be met by personnel

The table shows the skills required to perform the specified roles. One person may perform more than one role depending on need and organization of work, provided this person has the skills required for the role concerned.

Role	Skills required	Tasks
Owner of the combi oven or owner's member of staff who is responsible for the appliance and for the operating personnel	Knows the regulations associated with handling heavy loads	<ul style="list-style-type: none"> ▪ As the representative for the entire team of operating personnel, is made aware of all safety-related functions and devices of the combi oven by the start-up engineer ▪ As the representative for the entire team of operating personnel, is instructed by the start-up engineer on how to operate the appliance ▪ Provides assistance as instructed with conveying the appliance within the establishment and setting up the appliance.
Equipment mover	<ul style="list-style-type: none"> ▪ Trained in the use of a pallet truck and forklift truck ▪ Knows the regulations associated with handling heavy loads 	Conveying within the establishment
Service engineer	<ul style="list-style-type: none"> ▪ Is an employee of an authorized service company ▪ Has relevant technical training ▪ Is trained in the particular appliance ▪ Knows the regulations associated with handling heavy loads ▪ Can assess whether the connections to the electrical supply, water, wastewater system and network have been installed correctly. 	<ul style="list-style-type: none"> ▪ Setting up the appliance ▪ Installing the fully automatic oven cleaning system ▪ Putting the appliance into service ▪ Removing the appliance from service
Gas installation engineer	<ul style="list-style-type: none"> ▪ Is a gas installation engineer authorized by the gas utility company ▪ Has relevant professional training ▪ Is an employee of an authorized service company 	<ul style="list-style-type: none"> ▪ Connecting the appliance to the building's gas supply ▪ Disconnecting the gas supply
Electrical installation engineer	<ul style="list-style-type: none"> ▪ Is an employee of an authorized service company ▪ Has relevant professional training ▪ Is a qualified electrician and knows the applicable technical standards 	<ul style="list-style-type: none"> ▪ Connecting the appliance to the building's electrical supply ▪ Disconnecting the electrical connection

Role	Skills required	Tasks
Plumber	<ul style="list-style-type: none">▪ Is an employee of an authorized service company▪ Has relevant professional training	<ul style="list-style-type: none">▪ Connecting the appliance to the building's water supply▪ Disconnecting the water connection▪ Connecting the appliance to the building's drain connection▪ Disconnecting the drain connection
Start-up engineer (Service engineer)	<ul style="list-style-type: none">▪ Is an employee of an authorized service company who has overall responsibility for preparing the combi oven for first-time use▪ Has relevant technical training▪ Is trained in the particular appliance▪ Knows the regulations associated with handling heavy loads▪ Can assess whether the connections to the electrical supply, water and wastewater system have been installed correctly, and knows the applicable technical standards.	<ul style="list-style-type: none">▪ Instructing the owner and/or member of staff with relevant responsibility▪ Checking the work procedures and status values against the checklists

Working positions when installing the appliance and putting the appliance into service

The working position for personnel installing the appliance and putting the appliance into service is the entire appliance area.

3.8 Personal protective equipment

Moving and setting up the appliance

Activity	Materials used	Personal protective equipment
<ul style="list-style-type: none"> ▪ Conveying within the establishment ▪ Setting up the appliance on a worktable, stand or in a stacking kit 	<ul style="list-style-type: none"> ▪ Lifting straps ▪ Suitable lifting gear 	<ul style="list-style-type: none"> ▪ Protective gloves ▪ Safety boots ▪ Hard hat (e.g. when heavy loads are being lifted, working overhead,...)

Installation, putting into service and removal from service

Activity	Materials used	Personal protective equipment
Installing and removing (from service) the <ul style="list-style-type: none"> ▪ Electrical connection ▪ Network connection ▪ Water connection ▪ Drain connection ▪ Gas connection ▪ Automatic grease removal system 	Tools and equipment depend on the task	Work wear and personal protective equipment depending on the job that needs doing as specified in national regulations
Fitting and removing the fully automatic oven cleaning system	Tools and equipment depend on the task	Items of protection equipment, depending on cleaning agent being used: <ul style="list-style-type: none"> ▪ Breathing mask ▪ Safety goggles ▪ Protective gloves ▪ Protective clothing/apron The EC safety datasheet for the relevant cleaning agent contains a more precise specification of these items. An up-to-date copy can be obtained from the manufacturer. Refer to the label on the cleaning agent concerned.
<ul style="list-style-type: none"> ▪ Putting the appliance into service ▪ Instructing the user 	Tools and equipment depend on the task	Work wear as specified in country-specific standards and directives (BGR 111 in Germany) for kitchen work, in particular: <ul style="list-style-type: none"> ▪ Protective clothing ▪ Heat protective gloves (compliant with EN 407 in European Union) ▪ Safety boots
Dismantling the appliance (removal from service)	<ul style="list-style-type: none"> ▪ Lifting straps ▪ Suitable lifting gear ▪ Forklift truck or pallet truck 	<ul style="list-style-type: none"> ▪ Protective gloves ▪ Safety boots ▪ Hard hat (e.g. when heavy loads are being lifted, working overhead,...)

4 Transportation

4.1 Conveying the appliance to the installation location

Space required for conveying the appliance

Make sure that there is enough width and height along the entire route used for conveying the appliance to ensure it can get through to its installation location.

The table below shows the dimensions of the appliances including packaging, which are needed to determine the minimum doorway dimensions required to allow the appliance to be brought to its installation location:

		6.10	6.20	10.10	10.20
Width	[mm]	1100	1345	1100	1345
Height	[mm]	1025	1025	1300	1300
Depth	[mm]	940	1140	940	1140

Load bearing capability for conveying the appliance

Provide moving equipment that is rated capable of carrying the load.

Refer to the weight of the appliance including packaging to determine the minimum working load limit of handling equipment; see 'Dimensions and weights' 'Technical data' on page 84.

Conveying the appliance to the installation location for the first time

Please observe the following points when conveying the appliance:

- Always move the appliance on a pallet.
- Always move the appliance in an upright position.
- Use a forklift truck or pallet truck to lift the appliance.
- Move the appliance slowly and carefully, and secure it against tipping over.
Make sure that you do not knock against things with the appliance.
Avoid moving appliance along uneven routes or up or down steep slopes.

4.2 Preparing to unpack

Preparing to unpack

Perform the following tasks before unpacking the appliance:

- Check the outer packaging for damage.
- Take the unpacking instruction leaflet out of the shipping documents.

4.3 Scope of delivery

Appliance and Accessories

The following parts are supplied:

- 1x combi oven
- 1x left-hand rack
- 1x right-hand rack
- 1x empty canister (10 litres) for cleaning agent (optional)
- 1x suction nozzle with hose for cleaning agent (optional)
- 1x suction nozzle with hose for rinse aid (optional)
- 1x flat bend for installing the drain connection
- 1x empty canister for extracted grease (grill version)
- 1x connecting tube with attached screw-cap for grease collecting canister (grill version)

Documentation

The following documents are supplied with the appliance:

- 1x Installation manual
- 1x User manual (hardware)
- 1x Operating instructions (software)
- 1x Unpacking instruction leaflet
- 1x Checklist for installation and putting into service

5 Setting up the appliance

5.1 Adjacent systems

Dealing with the discharged air

During operation, the combi oven generates heat and moisture, which mainly escape upwards into the surrounding air as hot vapour from the air vent(s). It is not permitted to connect air ventilation pipes directly to an air vent of the combi oven.

The manufacturer recommends using a fume extractor hood or ceiling-fitted ventilation equipment to extract the discharged air from the room in which the combi oven is operating.

In order to avoid the risk of fire or other damage to the building such as corrosion, mould growth and/or reduced stability, there must be a sufficiently large distance between the top of the appliance and the ceiling. This distance depends on the following factors:

- For guidance on the minimum vertical clearance, see 'Requirements for the installation location' on page 32.
- Type of air-vent system
- the nature of the ceiling in the installation location

It is a fundamental requirement that the combi oven is always set up, installed and operated in accordance with national and local standards and regulations (in the latest version).

In addition, please observe the following regulations:

- VDI Directive 2052 "Ventilation equipment for kitchens"
- Guidance from the local building authority for fume extraction systems.

Dealing with exhaust gases for gas appliances

Exhaust gases at a temperature of up to 500 °C escape from the exhaust outlet(s) on the top of the combi oven into the surrounding air. It is not permitted to connect pipes directly to an exhaust outlet of the combi oven as a way of removing the exhaust gases.

It is mandatory to use a ventilation system with a safety cutout for evacuating the exhaust gas.

The combi oven has an exhaust gas extraction system that complies with standard EN 203 type A3 / B23.

In order to avoid the risk of fire, there must be no flammable materials above the appliance and there must be a sufficiently large distance between the top of the appliance and the ceiling. This distance depends on the following factors:

- For guidance on the minimum vertical clearance, see 'Requirements for the installation location' on page 32
- the type of air ventilation system and exhaust gas extraction system
- the nature of the ceiling in the installation location

It is a fundamental requirement that the combi oven is always set up, installed and operated in accordance with national and local standards and regulations (in the latest version).

In addition, please observe the following regulations:

- VDI Directive 2052 "Ventilation equipment for kitchens"
- Guidance from the local building authority for fume extraction systems

5.2 Requirements for the installation location

Meaning

This section contains information to help you choose a suitable installation location for the appliance. Inspect the intended installation location carefully to ensure it is suitable before bringing the appliance there and starting the installation.

Regulations for setting up the appliance

National, regional and local standards and regulations relating to workplaces in professional kitchens must be observed.

For appliances with an NSF certificate, the following regulations must also be observed:

- Regulations from the National Sanitation Foundation (NSF)

The rules and regulations of the regional authorities and supply companies that apply to the installation site concerned must be observed.

Rules for setting up the appliance safely

To prevent hazards that arise from the installation site and environment of the appliances, the following rules must be observed:

- Compliance with the operating conditions must be possible. For operating conditions, see 'Requirements relating to the operating environment of the combi oven' on page 17.
- There is a risk of fire from the heat emitted from hot surfaces. Therefore there must not be any flammable materials, gases or liquids above, on, beneath or in the vicinity of the appliance. When choosing where to install the appliance it is essential to remember this requirement together with the information in the topic 'Adjacent systems' on page 31 and the minimum space required for the appliance.
- Heat sources in the vicinity must lie at a minimum distance of 500 mm.
- In the marine version, the Smoker is integrated into the monitoring system for the galley.
- The appliance must be installed so that there is absolutely no possibility that liquid from the appliance or liquid coming from cooking processes can reach deep-fat fryers or appliances that use hot, uncovered fat. Deep-fat fryers or appliances that use hot, uncovered fat that are located in the vicinity must lie at a minimum distance of:
 - 1050 mm for appliances of size x.10
 - 1450 mm for appliances of size x.20
- Do not install the appliance directly under a fire alarm or sprinkler system. Fire alarm installations and sprinkler systems must be set up to handle the level of steam and vapour expected to escape from the appliance.
- For the standard model of the appliance, it must be possible to set up the supporting structure for the appliance (work surface, stand or stacking kit) at the installation site in such a way that the appliance cannot tip over or shift.
- For the marine model of the appliance, the supporting surface must comply with requirements. The marine model of the appliance must be fixed in the installation position by the correct accessories.
- The standard model of the appliance must not be used in environments in which it could be subject to strong vibrations or mechanical shock (e.g. on vehicles or ships).
- For standard models of table-top units, vibrations must be avoided in general when using wheeled stands or wheeled stacking kits.
- The only appliance model permitted for use on ships is the marine model. This model of appliance must be screwed or welded to the floor using the appropriate parts.
- It is never permitted to install the marine model of the table-top unit on a wheeled stand or wheeled stacking kit.

Requirements for the subfloor

The subfloor must have the following properties:

- The supporting surface must be flat and horizontal.
- The supporting surface must be able to bear the weight of the appliance.
- The worktop or stand must have a load bearing capacity that is equal to the empty weight plus the maximum permissible load.

The appliance weight depends on the model and fitted equipment and is made up of the following values:

- Weight of your combi oven when empty
- Maximum permissible loading weight
- Maximum weight of cleaning fluids when fitted with ConvoClean / ConvoClean+ system
- Weight of stand or worktop for table-top units

Add up the following individual weights to find the total appliance weight:

		6.10	6.20	10.10	10.20
Individual weights					
Weight of combi oven when empty	[kg]	See weight excluding packaging in 'Technical data' on page 84			
Maximum permissible loading weight	[kg]	30	60	50	100
Maximum weight of cleaning agents	[kg]	20	20	20	20
Weight of stand (depends on model)	[kg]	20 - 50	30 - 65	20 - 50	30 - 65

Actual space requirements

Far more room than the specified space requirement is needed in front of the appliances to operate the combi ovens safely, in particular to handle hot food safely.

For the distance that is actually needed between the top of the combi oven and the ceiling, please refer to the topic 'Adjacent systems' on page 31.

Larger wall gaps are generally recommended to provide access for servicing.

In the installation location, the following parts must not be covered, obstructed or blocked (see also 'Design and function of the combi oven' on page 11):

- Air vent and exhaust outlet on the top of the appliance
- Ventilation port on the top of the appliance
- Ventilation holes in the appliance floor

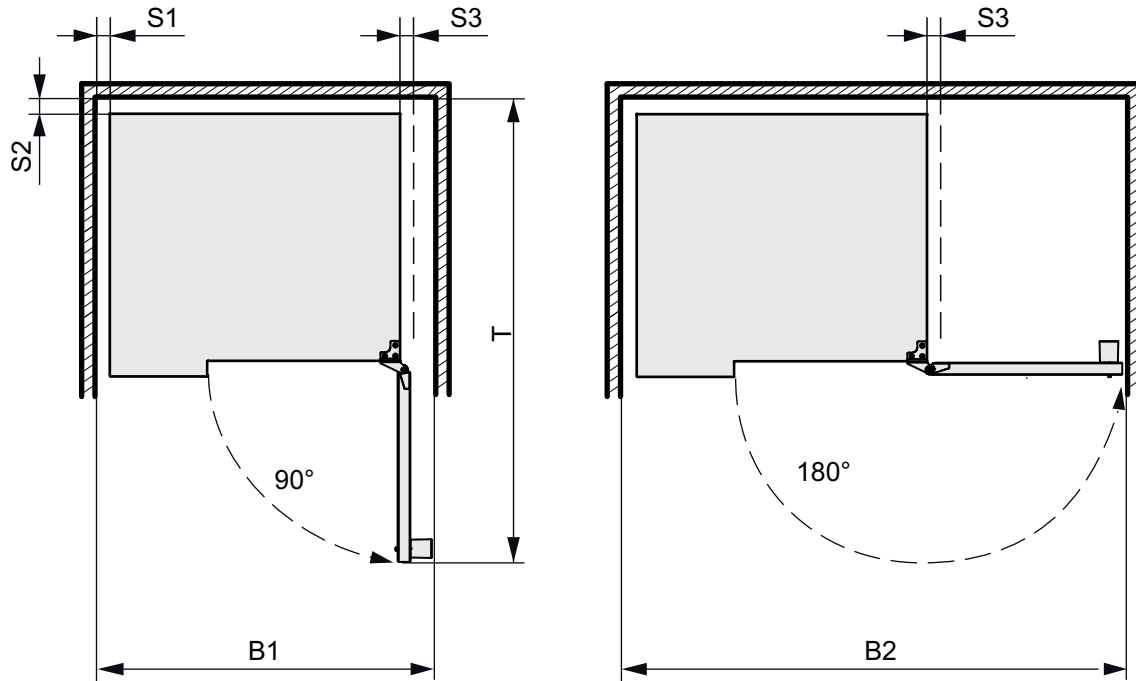
Space required for cleaning

The combi oven must be set up with three sides freely accessible so that the exterior can be cleaned. There must be a minimum clearance of 500 mm to the sides.

As an alternative a 150 mm high foot can be used; see accessories.

Space required for right-hinged door - width and depth

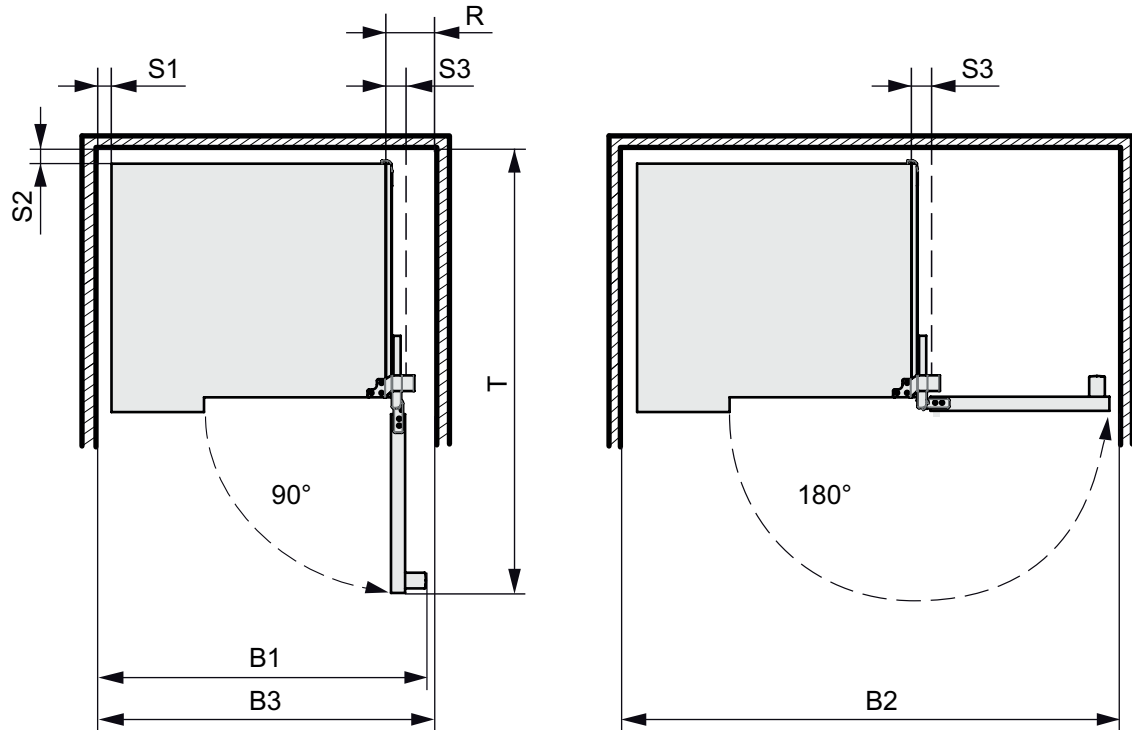
The following diagram and table show the space required for the appliance for different installation and operating situations. They also show the minimum horizontal distances from adjacent walls and surfaces. The safety clearances on the left, right and rear must always be complied with.



		6.10	6.20	10.10	10.20	
Meaning						
B1	Width requirement, appliance door open at 90°	[mm]	1020	1265	1020	1265
B2	Width requirement, appliance door open at 180°	[mm]	1458	1908	1458	1908
T	Depth requirement when opening the appliance door	[mm]	1399	1804	1399	1804
S1	Safety clearance on left-hand side	[mm]	50	50	50	50
S2	Safety clearance at rear	[mm]	50	50	50	50
S3	Safety clearance on right-hand side	[mm]	50	50	50	50

Space required for disappearing door - width and depth

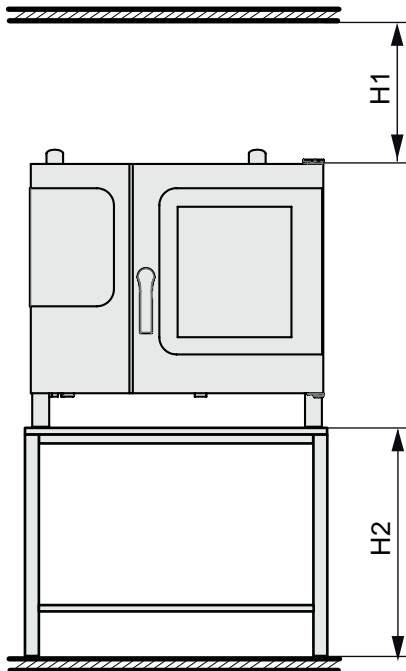
The following diagram and table show the space required for the appliance for different installation and operating situations. They also show the minimum horizontal distances from adjacent walls and surfaces. The safety clearances on the left, right and rear must always be complied with.



		6.10	6.20	10.10	10.20	
Meaning						
B1	Width requirement, appliance door open at 90°	[mm]	1051	1296	1051	1296
B2	Width requirement, appliance door open at 180°	[mm]	1510	1960	1510	1960
B3	Width requirement, disappearing door retracted	[mm]	1055	1300	1055	1300
R	Space required on right-hand side, disappearing door retracted	[mm]	130	130	130	130
T	Depth requirement when opening the appliance door	[mm]	1419	1824	1419	1824
S1	Safety clearance on left-hand side	[mm]	50	50	50	50
S2	Safety clearance at rear	[mm]	50	50	50	50
S3	Safety clearance on right-hand side	[mm]	50	50	50	50

Height requirement

The following illustration shows a size 6.10 combi oven as an example for all appliances:



The service engineer who is responsible for setting up the appliance must take into account the nature of the ceiling and any adjacent systems that may be used (air ventilation system, vapour extractor hood etc.) when designing the particular clearance needed between the top of the appliance and the ceiling. In this context, the vertical distance H1 must be understood as a guide value for the minimum vertical clearance.

		6.10	6.20	10.10	10.20	
Meaning						
Electric appliances						
H1	Guide value for the minimum vertical clearance	[mm]	500	500	500	500
Gas appliances						
H1	Guide value for the minimum vertical clearance	[mm]	1000	1000	1000	1000
Electric appliances and gas appliances						
H2	Installation height	[mm]	620 - 900	620 - 900	620 - 900	620 - 900

5.3 Taking the appliance off the pallet

⚠ Rules for lifting the appliance safely

Observe the following rules to prevent the appliance toppling over:

- Always lift the appliance carefully and secure it against tipping over.
- Be aware of the centre of gravity to keep the appliance balanced.

Using lifting straps to take the appliance off the pallet

The weight of your appliance is given under 'Technical Data' on page 84.

The following graphic shows a size 6.10 combi oven as an example for all appliances:

1.



Attach the lifting straps to the appliance feet.

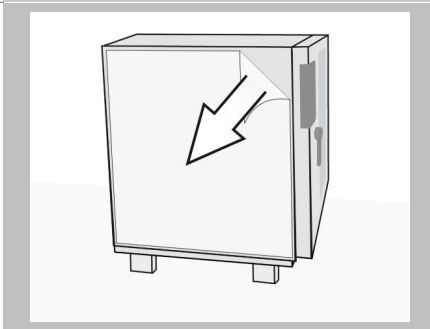
2.



To prevent it slipping off the pallet, the combi oven is held in place by studs on the pallet that extend into the appliance feet.

You therefore need to lift the appliance off the pallet evenly by lifting all four appliance feet at once before placing the appliance in its installation location.

3.



Remove the protective plastic from the combi oven.

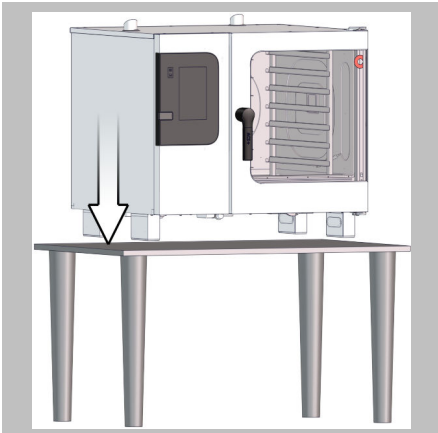
5.4 Setting up a table-top unit on a work surface

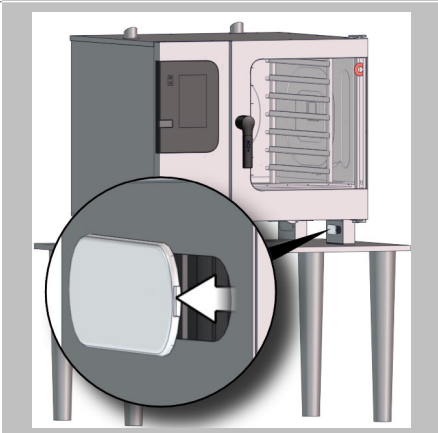
⚠ Rules for setting up the appliance safely

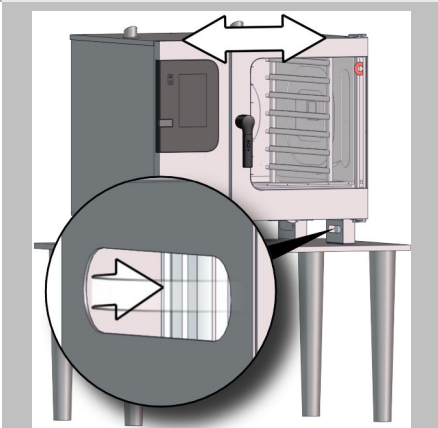
Observe the following rules to ensure that the appliance is installed in a stable situation:

- It must be possible to set up the worktable in the installation position so that it cannot tip over or slide about. The supporting surface must comply with requirements.
- The appliance must be installed on the worktable worktop so that it cannot tip over or slide about.

Setting up the appliance on a worktable

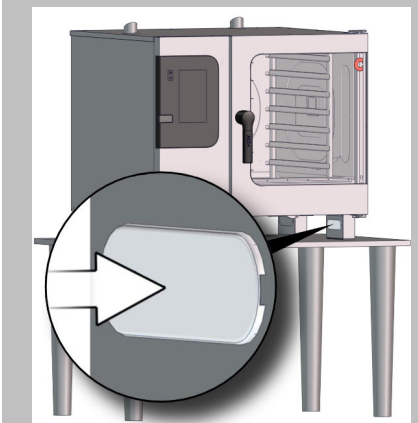
- 

1. Position the appliance on the worktable.
- 

2. Remove the cover from the appliance foot.
- 

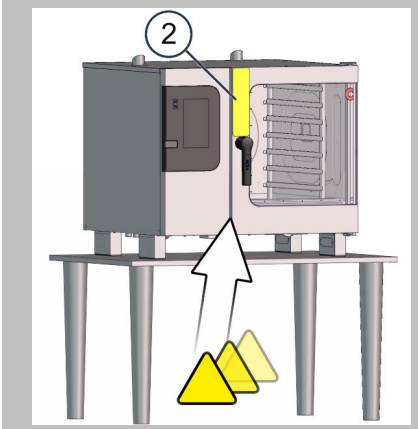
3. Use the adjusting screw to level the appliance until it is seated horizontally. Use the foot-adjustment tool or an adjustable pipe wrench to adjust the adjusting screw, and a spirit level to check all horizontal surfaces are level. The absolute tilt of the appliance in operation must not exceed max. 2° (3.5%).
Additional information:
The foot-adjustment tool is included with the customer documentation

4.



Refit the cover on the appliance foot.

5.



Stick the necessary warning labels in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning label in place.

Additional information:

you can find the warning labels inside the cooking chamber.

Type and position of the warning sign stickers to be attached

The following warning signs must be attached to the combi oven in the specified positions:

Warning sign Position on the combi oven



Somewhere on the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) depending on the installation situation
Directly above the door handle if

- the top of the appliance lies above 1.20 m or
- personnel are mainly semi-skilled staff (recommended)

Right at the top of the appliance door if

- the top of the appliance does not lie above 1.20 m



On the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) at a height of 1.60 m above the kitchen floor.

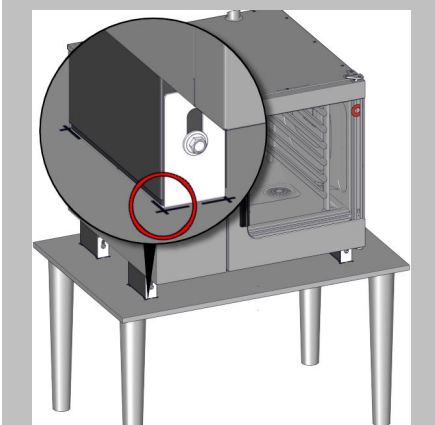
5.5 Setting up a table-top unit on a work surface (marine model)

⚠ Rules for setting up the appliance safely

- Observe the following rules to ensure that the appliance is installed in a stable situation:
- The appliance must be screwed or welded to the worktable using the appropriate parts.
 - The worktable must be screwed or welded to the floor.

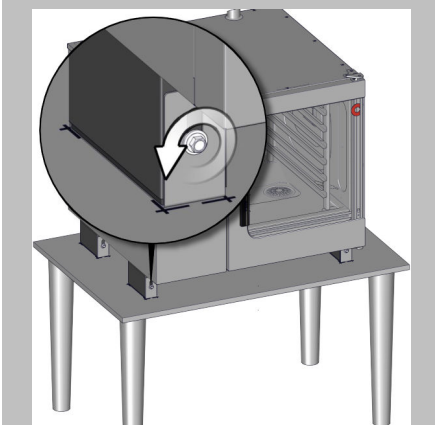
Setting up the appliance on a worktable

1.



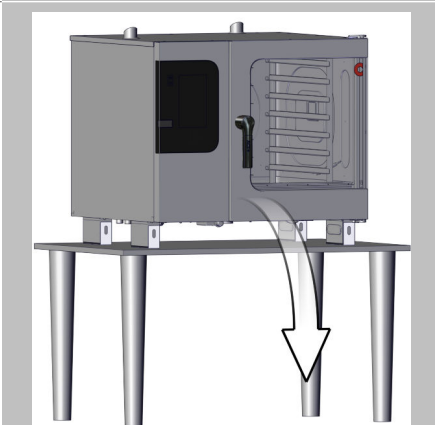
Position the appliance on the worktable, and on the work-top make a precise mark at the corners of each bracket on each appliance foot.

2.

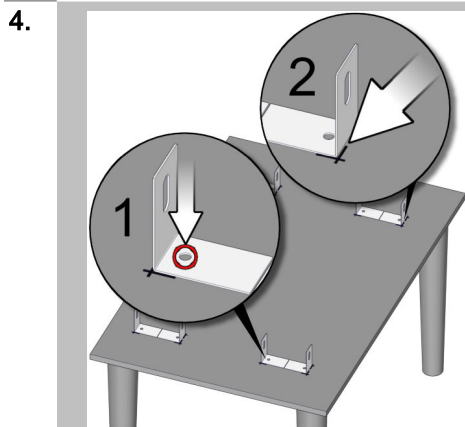


Remove both brackets from all four appliance feet by unscrewing the relevant screw in each case.

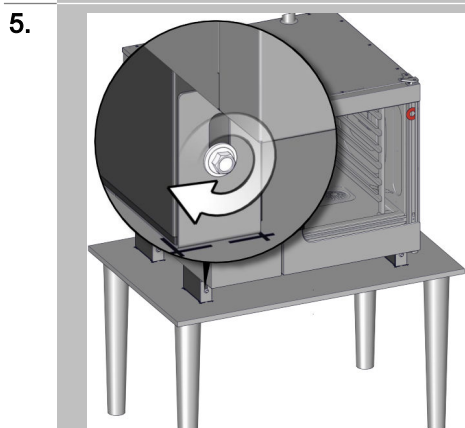
3.



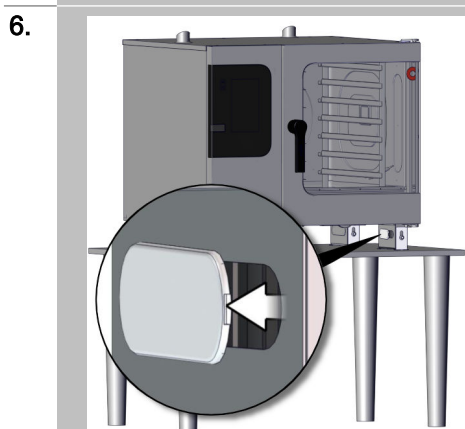
Take the appliance off the worktable.



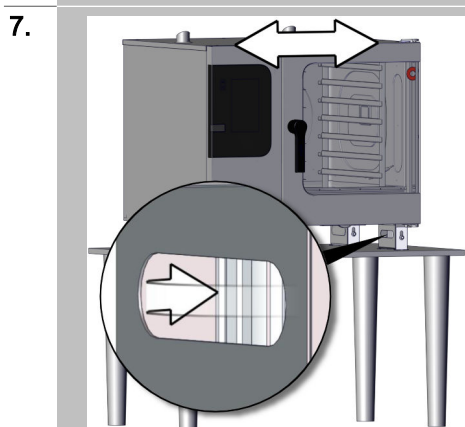
Place the brackets in the positions shown by your marks. Fix all the brackets permanently to the worktable, either by screwing (1) or welding (2) depending on the design of the tabletop.



Place the appliance in the brackets fixed on the worktable and screw the screws back in without tightening.



Remove the cover from the appliance foot.

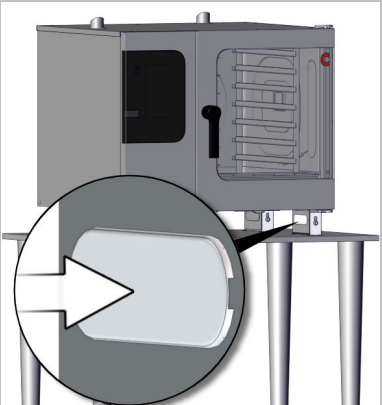
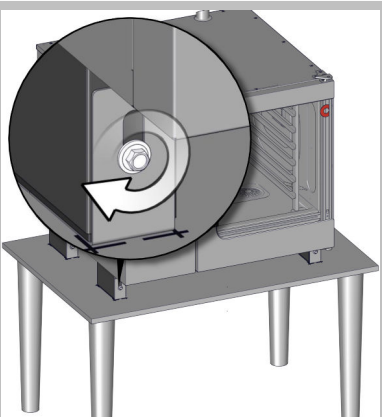
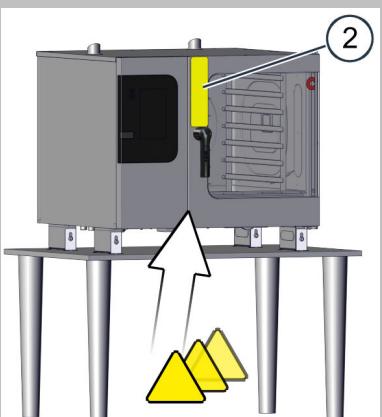


Use the adjusting screw to level the appliance until it is seated horizontally. Use the foot-adjustment tool or an adjustable pipe wrench to adjust the adjusting screw, and a spirit level to check all horizontal surfaces are level.

The absolute tilt of the appliance in operation must not exceed max. 2° (3.5%).

Additional information:

The foot-adjustment tool is included with the customer documentation

- | | |
|--|--|
| <p>8.</p>  | <p>Refit the cover on the appliance foot.</p> |
| <p>9.</p>  | <p>Tighten the screws on the brackets for the appliance feet.</p> |
| <p>10.</p>  | <p>Stick the necessary warning labels in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning label in place.
 Additional information:
 you can find the warning labels inside the cooking chamber.</p> |

Type and position of the warning sign stickers to be attached

The following warning signs must be attached to the combi oven in the specified positions:

Warning sign Position on the combi oven



Somewhere on the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) depending on the installation situation
 Directly above the door handle if

- the top of the appliance lies above 1.20 m or
- personnel are mainly semi-skilled staff (recommended)

Right at the top of the appliance door if

- the top of the appliance does not lie above 1.20 m



On the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) at a height of 1.60 m above the kitchen floor.

5.6 Setting up a table-top unit on a stand

⚠ Rules for setting up the appliance safely

Observe the following rules to ensure that the appliance is installed in a stable situation:

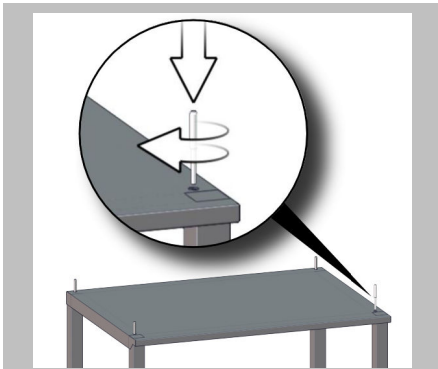
- It must be possible to set up the stand in the installation position so that it cannot tip over or slide about. The supporting surface must comply with requirements.

The following rules must be observed to meet hygiene standards:

- For stands that contain shelf levels for food containers, the top cover must be fitted on the stand to prevent dirt getting onto any food held temporarily in the stand.

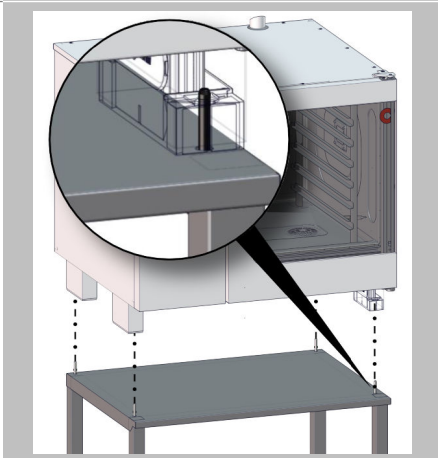
Setting up the appliance on a stand

1.



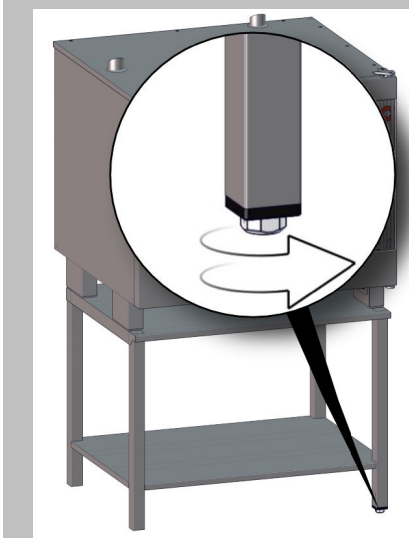
Screw the threaded bolts into the threaded holes provided in the oven stand and tighten the threaded bolts with the screwdriver.

2.



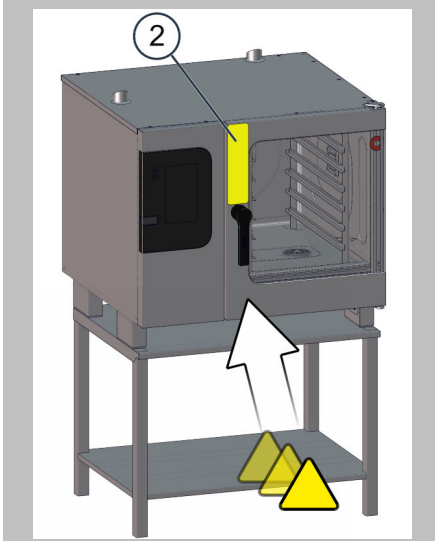
Position the appliance on the stand. Make sure that all four bolts are guided into the locating holes in the appliance feet provided for the purpose.

3.



Ensure the stand is horizontal by adjusting the height of the feet.
Use a spirit level to ensure the unit is horizontal in all directions.
The absolute tilt of the appliance in operation must not exceed max. 2° (3.5%).

4.



Stick the necessary warning labels in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning label in place.
Additional information:
you can find the warning labels inside the cooking chamber.

Type and position of the warning sign stickers to be attached

The following warning signs must be attached to the combi oven in the specified positions:

Warning sign Position on the combi oven



Somewhere on the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) depending on the installation situation
Directly above the door handle if

- the top of the appliance lies above 1.20 m or
- personnel are mainly semi-skilled staff (recommended)

Right at the top of the appliance door if

- the top of the appliance does not lie above 1.20 m



On the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) at a height of 1.60 m above the kitchen floor.

5.7 Setting up a table-top unit on a stand (marine model)

⚠ Rules for setting up the appliance safely

Observe the following rules to ensure that the appliance is installed in a stable situation:

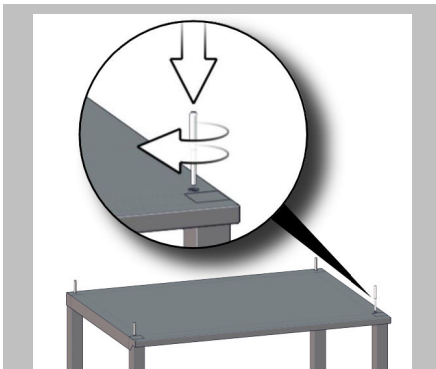
- The appliance must be screwed or welded to the stand using the appropriate parts.
- The stand must be screwed or welded to the floor using the appropriate parts.

The following rules must be observed to meet hygiene standards:

- For stands that contain shelf levels for food containers, the top cover must be fitted on the stand to prevent dirt getting onto any food held temporarily in the stand.

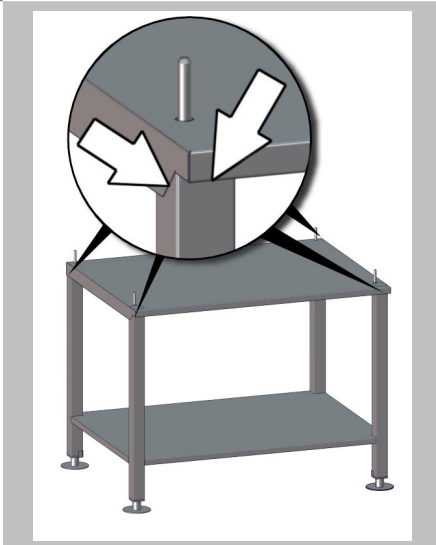
Setting up the appliance on a stand

1.



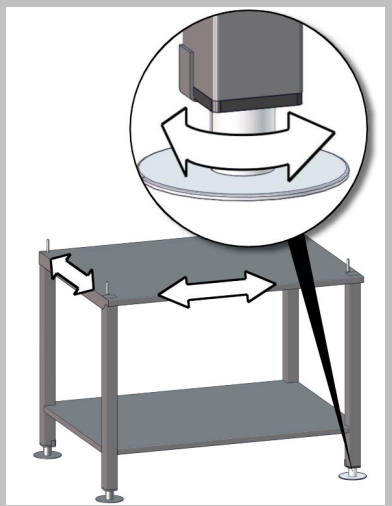
Screw the threaded bolts into the threaded holes provided in the oven stand and tighten the threaded bolts with the screwdriver.

2.



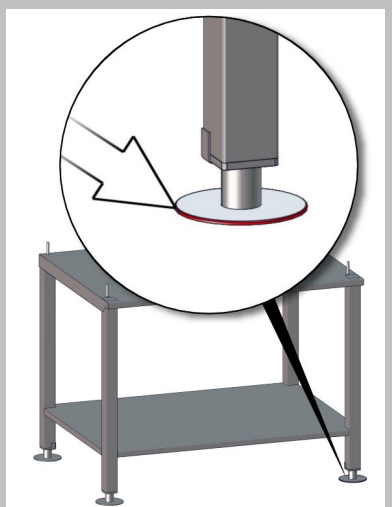
Weld the top cover along the connecting edges to all four legs of the stand.

3.



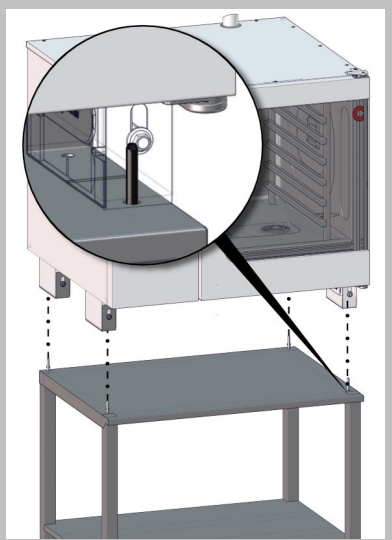
Ensure the stand is horizontal in the installation location by adjusting the height of the feet. Use a spirit level to ensure it is horizontal in all directions.

4.



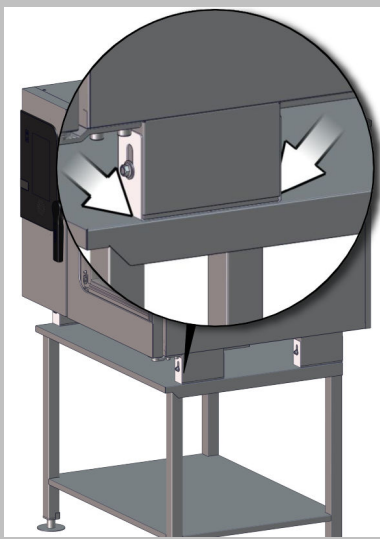
Fix the stand permanently to the floor by its flanged feet, e.g by welding.

5.



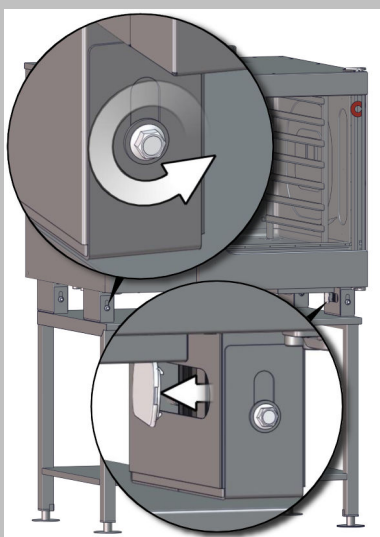
Position the appliance on the stand. Make sure that all four bolts are guided into the locating holes in the appliance feet provided for the purpose.

6.



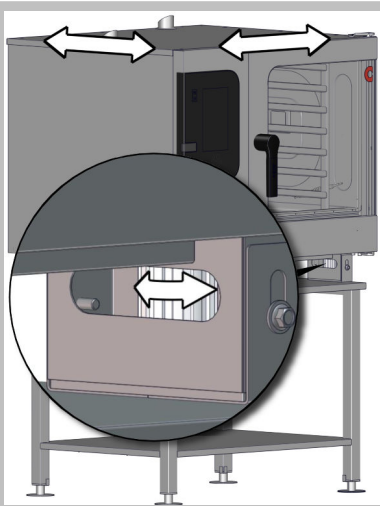
Weld the brackets (screwed to the appliance feet) permanently onto the top cover along the edges shown.

7.



Tighten all 8 screws on the brackets for the appliance feet, and remove the covers from the side of the appliance feet.

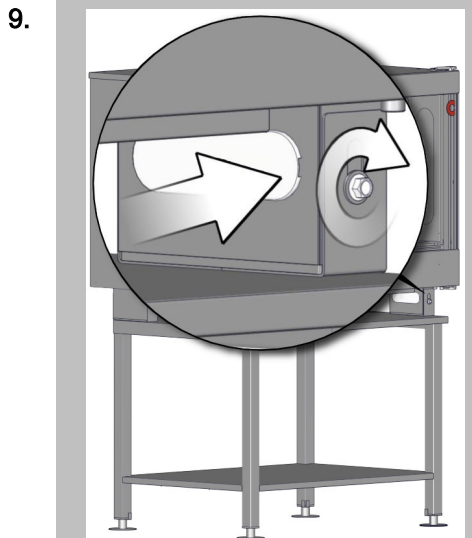
8.



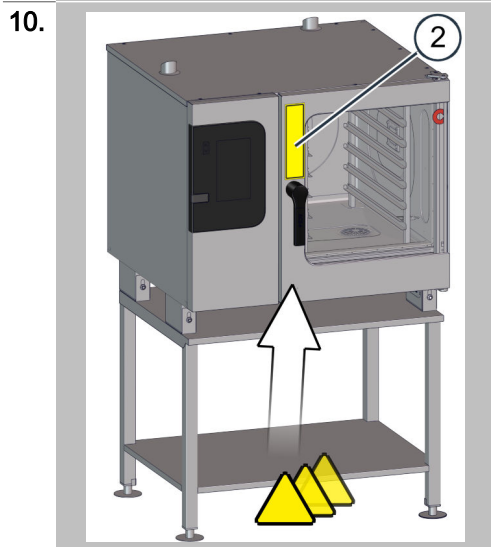
Use the adjusting screw to level the appliance until it is seated horizontally. Use the foot-adjustment tool or an adjustable pipe wrench to adjust the adjusting screw, and a spirit level to check all horizontal surfaces are level. The absolute tilt of the appliance in operation must not exceed max. 2° (3.5%).

Additional information:

The foot-adjustment tool is included with the customer documentation



Refit the covers on the appliance feet and tighten the screws on the brackets for the appliance feet.



Stick the necessary warning labels in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning label in place.

Additional information:

you can find the warning labels inside the cooking chamber.

Type and position of the warning sign stickers to be attached

The following warning signs must be attached to the combi oven in the specified positions:

Warning sign Position on the combi oven



Somewhere on the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) depending on the installation situation

Directly above the door handle if

- the top of the appliance lies above 1.20 m or
- personnel are mainly semi-skilled staff (recommended)

Right at the top of the appliance door if

- the top of the appliance does not lie above 1.20 m



On the left side of the appliance door in area 2 (see 'Warning signs on the combi oven' on page 18) at a height of 1.60 m above the kitchen floor.

5.8 Setting up appliances in the stacking kit

⚠ Rules for installing the appliances safely in the stacking kit

Observe the following rules to ensure that the stacking kit fitted with appliances is stable:

- It is only permitted to fit appliances of similar weight in the top and bottom of the stacking kit.
- The stacking kit must never contain an appliance only in the top half.
- It must be possible to set up the stacking kit in the installation position so that it cannot tip over or slide about. The subfloor must satisfy relevant requirements.

Installing the appliances in the stacking kit

Fit and install the appliances in the stacking kit in accordance with the separate fitting and installation instructions.

6 Installation

6.1 Electrical installation

6.1.1 Planning the electrical installation

Meaning

It is crucial to the safe and reliable operation of the appliance that the electrical system is installed carefully and correctly. All the rules and regulations listed here, and the described procedure, must be strictly followed.

⚠ Rules for safe electrical installation of the appliance

Observe the following rules to prevent hazards caused by faulty electrical connections:

- The case of the appliance must be grounded and connected to the equipotential bonding system in accordance with the recognized codes of practice.
- If two appliances are installed in a stacking kit, each of the appliance cases and the stacking kit itself must be grounded and connected to the equipotential bonding system in accordance with the recognized codes of practice.
- All electrical connections must be checked when the appliance is put into service to ensure cables are laid correctly and connections are made properly.

Regulations for the electrical installation

Observe the following requirements to prevent hazards caused by faulty electrical connections:

- The electrical supply must be connected in accordance with German VDE requirements 0100 and/or with applicable local regulations of the professional associations and of the relevant utility.

Equipment provided by customer and electrical installation regulations

The table below shows what equipment must be provided by the customer and what regulations must be observed when connecting the appliance.

Equipment	Rules
Fuse	Fuse protection and connection of the appliance must comply with local regulations and national installation requirements.
Protective equipotential bonding system	The appliance must be incorporated in a protective equipotential bonding system. Protective equipotential bonding system: Electrical connection that ensures that the frames of electrical equipment and any external conductive components are at an equal (or practically equal) potential.
Residual-current device (RCD)	If the installation regulations require protection by a residual-current device (RCD), then suitable residual-current devices meeting the relevant national regulations must be used. If the installation includes more than one appliance, one residual-current device must be provided for each appliance.
Disconnecter	An easily accessible all-pole disconnection device with a minimum contact separation of 3 mm must be installed close to the appliance. The appliance must be connected via this disconnection device. The disconnecter is used to disconnect the appliance from the electrical supply for cleaning, repair and installation work.

Recommended residual-current device

The appliance is fitted with a frequency converter (FC) and a built-in EMC filter plus an EMC line filter. These devices may result in a leakage current of more than 3.5 mA per variable frequency drive.

Use a suitable residual-current device (RCD) for the rated voltage:

Frequency converter (single phase)	Frequency converter (three phase)
Rated voltage	
3N~ 400 V 50/60 Hz	3~ 400 V 50/60 Hz
3N~ 380 V 60 Hz	3~ 440 V 60 Hz
3~ 220 V 60 Hz	3~ 480 V 60 Hz
3~ 230 V 50/60 Hz	-
3~ 200 V 50/60 Hz	-
1N~ 230V 50/60 Hz	-
1N~ 220V 60 Hz	-
1N~ 100V 50/60 Hz	-
1N~ 120V 60 Hz	-
2~ 230 V 50/60 Hz	-
Recommended residual-current device (RCD)	
Type A/B	Type B

Properties of the residual-current device

The residual-current device (RCD) must have the following properties:

- Filter for filtering out RF currents
- "Time delayed" trip characteristic for RCD devices with trip threshold ≤ 30 mA: prevents RCD being tripped by charging currents of capacitors and parasitic capacitances when appliance is switched on.
- "Leakage current protection, type SI" trip characteristic for RCD devices with trip threshold ≤ 30 mA: insensitive to nuisance tripping.

Mains supply connection

The power cord must be an oil-resistant, sheathed and flexible cable in accordance with IEC 60245 (e.g. H05RN-F, H07RN-F). A maximum cable length of 5 m is recommended.

The appliance does not need to be connected in a specific phase sequence or a specific direction of rotation.

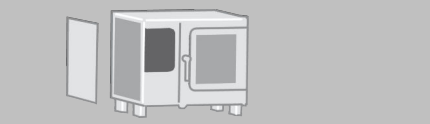

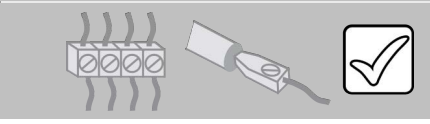
6.1.2 Carrying out the electrical installation

Requirements

Check that the following requirement has been met:

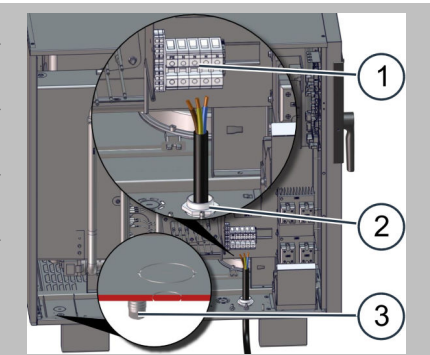

- The connection point of the appliance is disconnected from the customer power supply and protective measures taken to ensure the power cannot be switched on again.

Checking the supply ratings and electrical connections

- | | | |
|----|---|--|
| 1. |  | <p>Remove the side panel from the appliance.
The circuit diagram and spare parts list are located in the wiring compartment.</p> |
| 2. |  | <p>Check that the electrical supply ratings on the type plate (see 'Identifying your combi oven' on page 7) match the figures for the building's power supply and those given in the circuit diagram. It is only permitted to connect the appliance if all these values tally with each other.</p> |
| 3. |  | <p>Check all screw connections and terminals on the appliance.
The connections may have worked loose during transport.</p> |

Carrying out the electrical installation

The figure below shows a size 10.20 combi oven as an example for all appliance sizes:

- | | | |
|----|---|--|
| 1. |  | <p>Remove the side panel from the appliance.</p> |
| 2. | | <p>Connect the appliance to a protective equipotential bonding system at the designated connection point (3).</p> |
| 3. | | <p>Use the mains power cable to connect the power supply to the appliance at the -1X0 terminal block (1).</p> |
| 4. | | <p>Make sure that the cable gland (2) is tightened firmly because it also acts as a cable strain relief.</p> |
| 5. | | <p>For C4 ES/GS:
Reset the safety thermostat for the cooking chamber if necessary.
For C4 EB/GB:
Reset the safety thermostats for the cooking chamber and boiler if necessary.</p> |
| 6. |  | <p>Fit the side panel on the appliance and check that it is fixed correctly in place.</p> |

6.1.3 Connection to an energy optimization system (electric appliances only)

Purpose of an energy optimization system

You can connect the combi oven to an energy optimization system (e.g. SICOTRONIC). An energy optimization system smooths out peaks in power consumption that occur during operation of your appliances, and can thereby help to reduce your energy costs.

Configuring an energy optimization system

The energy optimization system must be configured as follows:

- The connecting lines between the appliance and the energy optimization system should not be longer than 5 m. If this is not possible, the connection must be carried out using an intermediate relay located at a maximum distance of 5 m from the appliance.
- The continuous switch-on time for the combi oven must be set to at least 8 minutes to be certain that the target cooking temperature is reached.
- The energy optimization system must not disconnect the power for longer than 30 seconds because the cooking result cannot be guaranteed for a longer interruption in the power supply.

When connecting the system, refer to the circuit diagram and operating instructions of the energy optimization system.

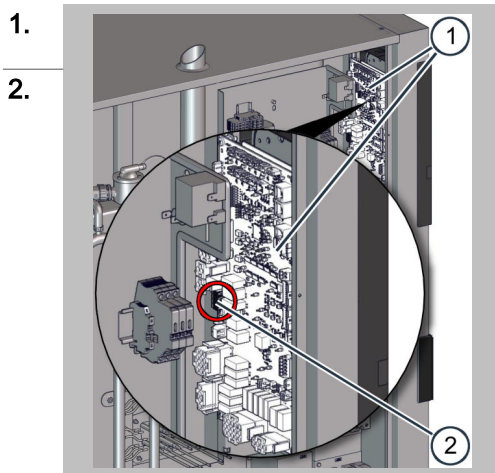
Accessories required

You need the following parts to connect the energy optimization system:

- Connecting cable for energy optimization system
- Cable gland M20
- Cable ties

Connecting an energy optimization system

The figure below shows a size 6.10 combi oven as an example for all appliance sizes:



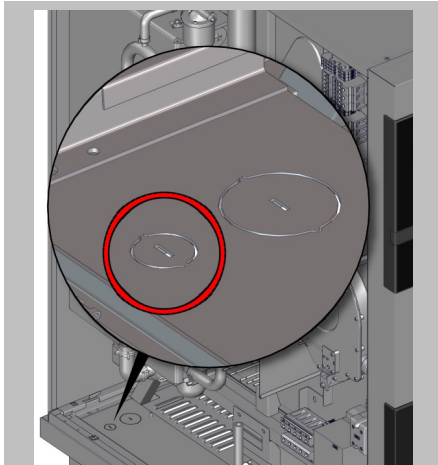
1.

Disconnect the energy optimization system and the combi oven from the power supply.

2.

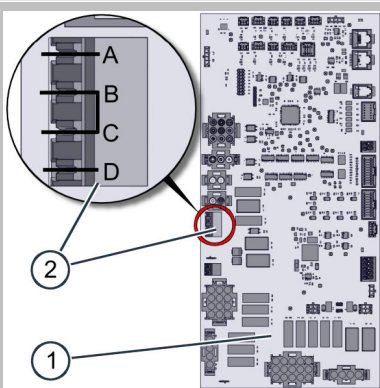
Remove the side panel from the combi oven in order to access terminal block -X37 (2) on the system interface board (SIB) (1) in the area behind the operating panel.

3.



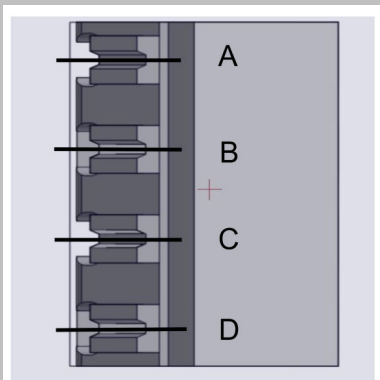
- Tap out the smaller, pre-perforated knock-out in the floor panel of the combi oven, at the position indicated.
- Insert the cable gland in the knock-out then feed the connecting cable for the energy optimization system through the cable gland into the wiring compartment of the combi oven.
- Route the connecting cable to the SIB and fix it in the wiring compartment, e. g. using cable ties to attach it to an existing wiring harness.

4.



Remove the wire link between the terminals (B) and (C) on terminal block -X37 (2).

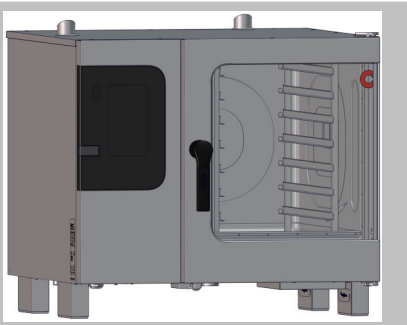
5.



Connect the terminals (A), (B), (C) and (D) of terminal block -X37 (2) to the energy optimization system.

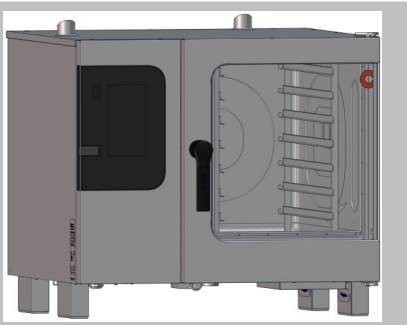
Terminal	Combi oven	Energy optimization system
A	Phase, when combi oven is on	-
B	Phase, when combi oven heating element is on	Switching relay
C	Heater enable, B and C must be connected by switching relay in the energy optimization system in order to enable heating	Switching relay
D	Neutral	-

6.



Refit the side panel on the combi oven.

7.



Put the combi oven and energy optimization system into operation.

6.1.4 Connecting the signal tower

Purpose of a signal tower

A signal tower that is electronically connected to the combi oven indicates the current operating status of your combi oven visually, using three indicator lamps (green, yellow, red), and acoustically. This indicating device provides a signal that can be seen and heard from far away.

Accessories required

The signal tower is supplied with the following original accessories, which you will need in order to connect the signal tower to the combi oven:

- Connecting cable (approx. length 10 m) with M12 female connector
- DN 50 diaphragm grommet

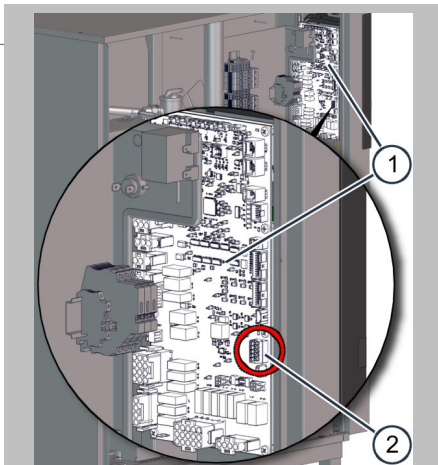
In addition you will need the following equipment:

- Cable ties

Connecting the signal tower

The figure below shows a size 6.10 combi oven as an example for all appliance sizes:

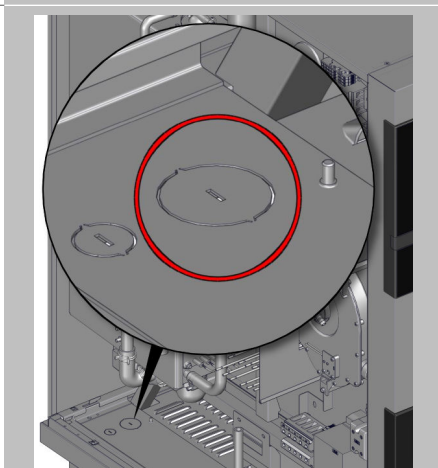
- 1.
- 2.



Disconnect the combi oven from the power supply.

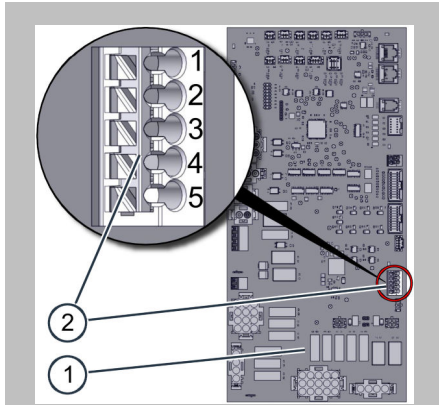
Remove the side panel from the combi oven in order to access terminal block X32 (2) on the system interface board (SIB) (1) in the area behind the operating panel.

- 3.



- Tap out the larger, pre-perforated knock-out in the floor panel of the combi oven, at the position indicated.
- Insert the diaphragm grommet in the knock-out then feed the signal-tower connecting cable through the grommet into the wiring compartment of the combi oven.
- Route the connecting cable to the SIB and fix it in the wiring compartment, e. g. using cable ties to attach it to an existing wiring harness.

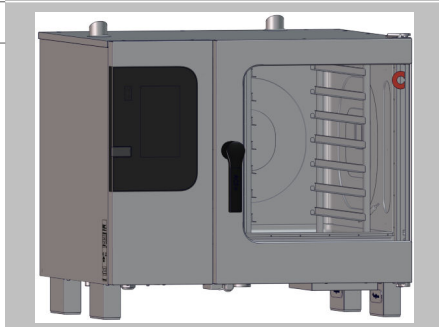
4.



Connect the signal-tower connecting cable to the combi oven in accordance with the PIN assignment shown below.

PIN	Assignment	Wire colour
1	GND	BU (Blue)
2	Signal: buzzer	GY (Grey)
3	Signal: red light	BK (Black)
4	Signal: yellow light	WH (White)
5	Signal: green light	BN (Brown)

5.



Refit the side panel on the combi oven.

6.

Put the combi oven and signal tower into operation.

6.1.5 Connecting the water-treatment filter monitor

Purpose of the water-treatment filter monitor

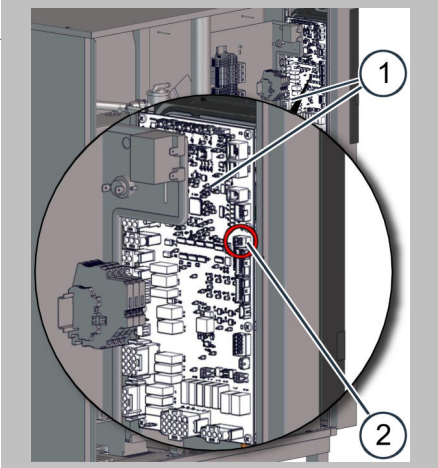
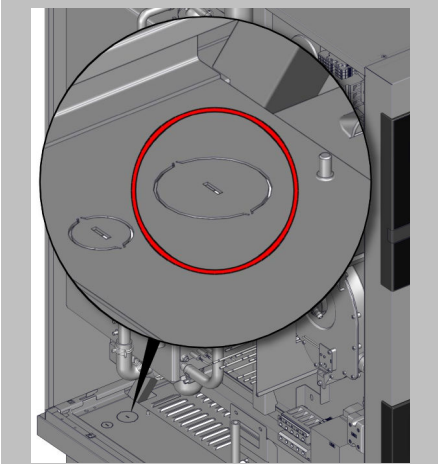
You can provide an electrical connection from the combi oven to the remote status indicator of a connected water treatment filter. The combi oven software will then monitor the status of the water treatment filter. A warning message tells you when the filter capacity is down to only 10% so that you know that the water treatment filter will need changing soon.

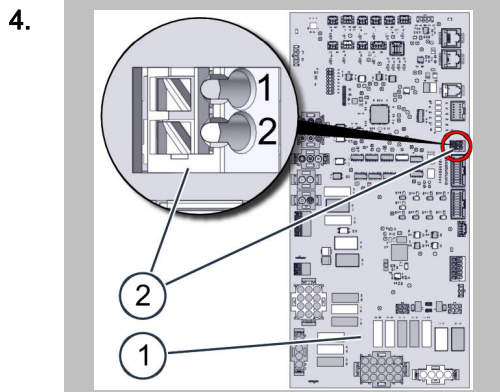
Accessories required

- 2-core connecting cable (approx. length 2 m); recommended: Ölflex H05VV5-F, 2 x 0.5 mm
- DN 50 diaphragm grommet
- Cable ties

Connecting the water-treatment filter monitor

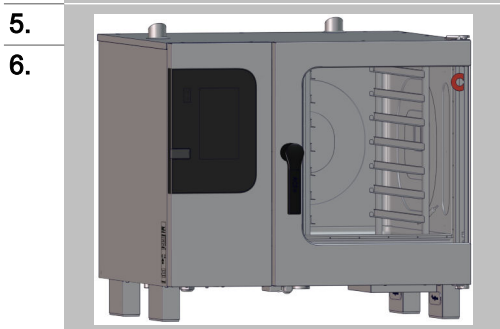
The figure below shows a size 6.10 combi oven as an example for all appliance sizes:

1. 
2. 
 - Disconnect the combi oven from the power supply.
 - Remove the side panel from the combi oven in order to access terminal block X33 (2) on the system interface board (SIB) (1) in the area behind the operating panel.
 - Tap out the larger, pre-perforated knock-out in the floor panel of the combi oven, at the position indicated.
 - Insert the diaphragm grommet in the knock-out then feed the connecting cable for the water-treatment filter monitor through the grommet into the wiring compartment of the combi oven.
 - Route the connecting cable to the SIB and fix it in the wiring compartment, e. g. using cable ties to attach it to an existing wiring harness.



Connect the connecting cable for the water-treatment filter monitor to the combi oven in accordance with the PIN assignment shown below.

PIN	Assignment
1	Signal
2	GND



Refit the side panel on the combi oven.

Put the combi oven and water-treatment filter monitor into operation.

6.2 Gas installation

6.2.1 Planning the gas installation

▲ Rules for safe installation of the gas supply to the appliance

Observe the following rules to prevent hazards caused by faulty gas connections:

- The combi oven is supplied from the factory for operation with a defined gas type (see appliance type plate). In order to operate the combi oven using different gas types, a qualified member of staff from an authorized service company must first convert the combi oven.
- After connecting to the gas supply and after any subsequent operation on gas-carrying components, always check for leaks at every connection point and supply point to gas-carrying components. Ensure that all the specified points inside and outside the appliance are gastight before putting the combi oven into service.

Type of gas appliance

The combi oven is the following type of gas appliance:

Type of gas appliance	Meaning
B23	Open flues dependent on room air <ul style="list-style-type: none"> ▪ With burner fan upstream of the burner and ▪ Without draft diverter

Gas installation regulations and customer-supplied fittings

The table below shows what equipment must be provided by the customer and what regulations must be observed when connecting the appliance.

Equipment	Regulations
Fixed connection	The appliance is designed to be permanently connected to the customer's gas supply. Position of the gas supply: Point J in the connection drawing. The appliance must be secured in place.
Gas shut-off device	A gas shut-off device must be fitted close to the appliance. The gas shut-off device must be easily accessible, and situated so that it can also be shut off in a hazardous situation.
Pressure regulator	A pressure reducer must be fitted if the supply flow pressure is too high.
All connection components	All connection components provided by the customer must be tested in accordance with local and national regulations.

Providing a guaranteed supply of combustion air

In order to ensure a sufficient supply of combustion air, take specific measures according to the installation situation and power of the combi oven in accordance with local regulations, standards and directives. As the responsible gas fitter, you must ensure there is an adequate supply of combustion air.

Please note the following points:

- The amount of combustion air required depends on the rated gas consumption; see 'Exhaust gas output rate' under 'Technical data' on page 84.

Providing reliable ventilation

The appliance produces combustion gases that must be vented to the outside air via suitable gas exhaust conduction. It is essential to follow the relevant information in the topic 'Adjacent systems' on page 31.

As the responsible gas fitter, you must ensure that adequate ventilation exists for operation of the combi oven in order to prevent noxious combustion gases reaching harmful concentration levels in the room in which the combi oven is installed.

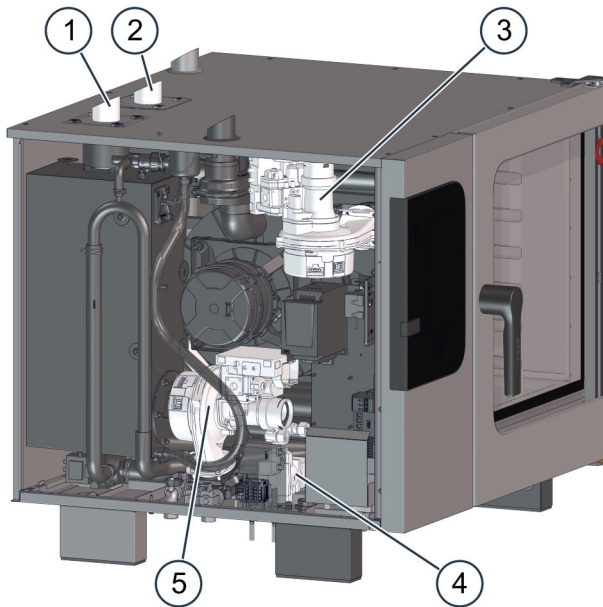
Exhaust gas temperature

The temperature of the undiluted exhaust gas can reach 500 °C.
Follow fire safety regulations.

6.2.2 Positions of the fan burners and main gas valve

Position of the gas burners

The following illustration shows a size 6.10 combi oven with boiler as an example of all appliance sizes:



Item	Name
1	Exhaust outlet from boiler burner (only on models with boiler not steam injection)
2	Exhaust outlet for convection burner
3	Convection burner
4	Main gas valve, connection to gas supply in appliance floor
5	Boiler burner (only on models with boiler not steam injection)

6.2.3 Installing the gas

Requirements

Check that the following requirement has been met:

- A gas shut-off device is installed at the customer's premises.

Materials required

- Leak detector spray/gas detector

Installing the gas

- | | | |
|-----|--|---|
| 1. | Compare the type of gas, the gas pressure and the rating for the gas supply connection with the data given on the appliance type plate.
The appliance must not be connected to the gas supply or put into use unless the values match those on the type plate. | 'Data for gas operation' in 'Technical data' on page 84 |
| 2. | Connect to the gas supply. | |
| 3. | Make sure that all the connections outside the appliance are gastight. | |
| 4. | Find out about the construction and position of the burner, and the layout of its parts. | Positions of the fan burners and gas distribution system on page 61 |
| 5. | Switch on the appliance. | |
| 6. | Make sure that all the connections outside and inside the appliance are gastight. Seal any connections that are not gastight. | |
| 7. | Start a cooking profile in the Convection operating mode. | |
| 8. | Measure the supply flow pressure at the gas valve.
Result: <ul style="list-style-type: none"> ▪ If the supply flow pressure is higher than the specified range, it may be possible to reduce the level. ▪ If the supply flow pressure is lower than the specified range, then you as gas fitter will not be able to correct this. ▪ If the measured value lies within the specified limits, continue from step 9 of these instructions. ▪ If you cannot manage to achieve a supply flow pressure within the limits, shut off the gas supply to the combi oven at the gas shut-off device and discontinue the installation. | Measuring the supply flow pressure on page 63 |
| 9. | Measure the CO values for the burner.
The appliance must not be put into use unless it complies with the specified limits. | Measuring the exhaust gas values on page 64 |
| 10. | Switch off the appliance. | |
| 11. | Notify the following bodies (where necessary) of the installation that has been made: <ul style="list-style-type: none"> ▪ Gas provider ▪ Relevant authorities in accordance with local statutory regulations and requirements. | |

6.2.4 Measuring the supply flow pressure

Requirements

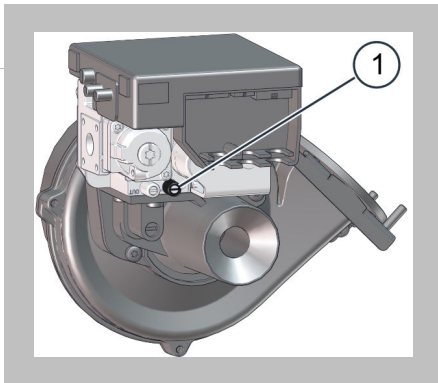
- A gas shut-off device is installed at the customer's premises.
- The gas has been installed correctly in accordance with the instructions under 'Installing the gas' on page 62 as far as the step 'Measuring the supply flow pressure'.

Materials required

- pressure meter

Measuring the supply flow pressure

1.



2.

Measure the supply flow pressure at the valve (1) of the gas valve on the fan burner.

Compare the measured value with the specified limits; see 'Gas specification'.

Result:

- If the measured supply flow pressure is lower than the specified values:
 - Notify the gas provider. In this case the appliance must not be put into use and the gas supply must be switched off.
- If the measured supply flow pressure is higher than the specified values:
 - Reduce the supply flow pressure.

6.2.5 Measuring the exhaust gas values

Materials required

- Exhaust gas analyser

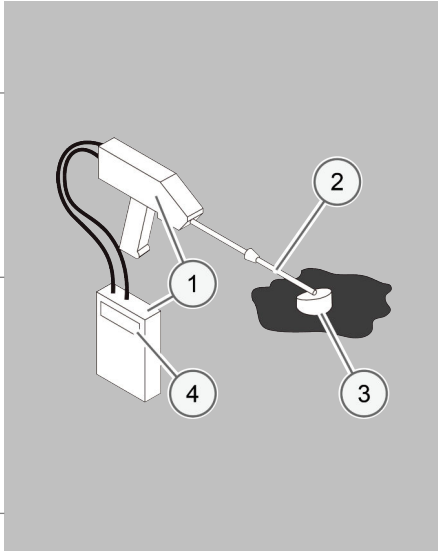
Measuring the exhaust gas values

1.

2.

3.

4.



Guide the measuring sensor (2) of the exhaust gas meter (1) into the exhaust outlet (3) for the burner to be measured.

Measure the exhaust gas values.

Follow the operating instructions for the meter when taking the readings.

Additional information:

If the meter indicates approx. 21% O₂ or nothing at all, then the sensor is inside the wrong exhaust outlet.

Wait 1 minute before taking the readings (4) and then compare them with the specified limit; see 'Data for gas operation' in 'Technical data' on page 84.

- If the reading does not lie within the limit, the appliance must be checked as directed in the adjustment instructions in the service documentation.

Otherwise:

- Continue with Step 4.

Record the measurements.

6.3 Network connection

6.3.1 Planning the network connection

Meaning

It is crucial that the network connection be installed carefully and correctly to ensure safe and reliable operation of the appliance and the Internet/cloud connection this requires (ConvoSense assistance system).

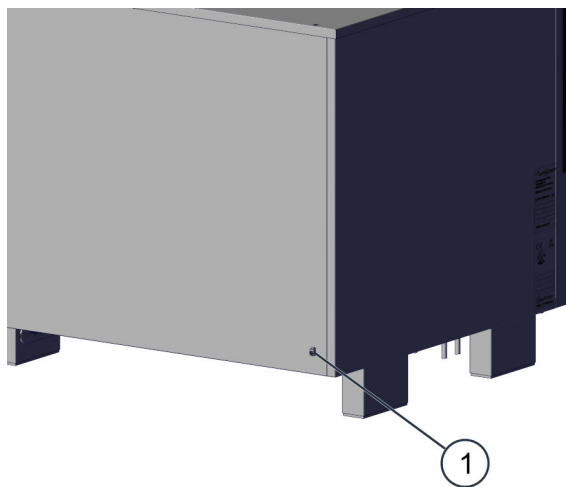
Contact your Service partner with regard to this matter.

Customer-installed equipment and rules relating to the network connection

The table below shows what equipment must be provided by the customer and what regulations must be observed when connecting the appliance.

Equipment	Rules
RJ45 network socket	There must be a network connection for the combi oven installed close to the appliance. When connecting more than one combi oven, a dedicated network connection must be installed for each appliance. Alternatively, the appliances can be networked together by additionally installing a router.

Position of the network port

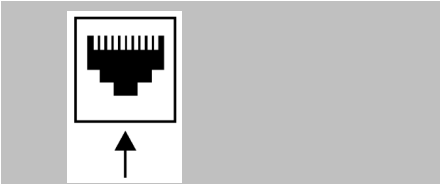



Item	Name	Function
1	RJ45 network socket	Network port on the rear of the combi oven



6.3.2 Connecting to the network

Installation procedure

Follow the steps below to establish an Internet connection:

1.  Use a network cable to connect the network socket on the combi oven to the network socket which the customer has pre-installed and given clearance for use.
2.  When putting the combi oven into service, check whether the 'kitchenconnect®' Internet icon in the user interface indicates that the connection is enabled.

Checking the network connection

Display in easyTouch	Button	Meaning
	'kitchenconnect®' blue	Internet is enabled, installation successful
	'kitchenconnect®' white	Internet is disabled, installation unsuccessful

6.4 Water connection

6.4.1 Water supply

Regulations for the water connection

Water pipes and connections must comply with local and national regulations. In particular these include:

- DIN 1988 part 2 and part 4
- EN 61770
- EN 1717

For appliances with an NSF certificate, the following regulations must also be observed:

- Regulations from the National Sanitation Foundation (NSF)
- International Plumbing Code 2003
- International Code Council (ICC)
- Uniform Plumbing Code 2003, International Association of Plumbing and Mechanical Officials (IAPMO)

The appliance must be installed with suitable backflow protection to comply with applicable federal, state, and local codes.

For Australia and New Zealand:

Water installation must be done in compliance with AS/NZS 3500 Plumbing and Drainage Code.

Connecting the water supply

The appliance is designed to be permanently connected to the customer's water supply.

Connecting the water supply with a flexible connecting pipe

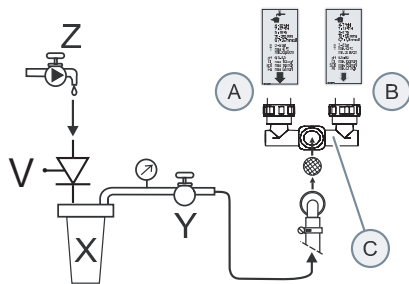
The appliance can be connected to the water supply using a flexible DN10 water supply pipe to DIN EN 61770 with a 3/4" screw connection.

Water quality and water hardness

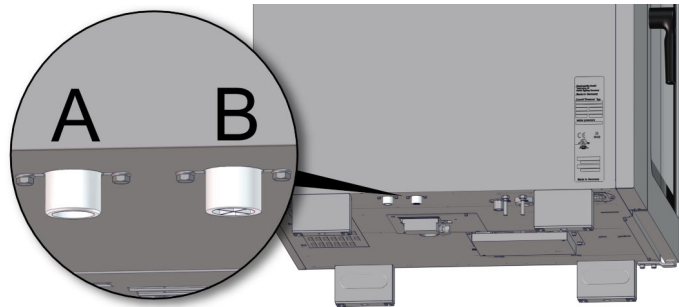
- Find out the water quality and water hardness from your local water supply company, or test the water quality as described in 'Testing the water quality' on page 71.
- Information on the required drinking water quality is given in the 'Technical Data' chapter under the 'Water quality' heading.
- If necessary, provide suitable water treatment measures. For instance these may be installing a water filter and/or a water treatment system.
- Test the water quality as described in 'Testing the water quality' on page 71 to ensure that after water treatment, the water meets the specified quality values.
- Please note that the indicated recommended values for appliances with a boiler refer to the general hardness (GH °dH, TH, ppm CaCO₃ or mmol/l alkaline earth ions). Other minerals dissolved in water can also create deposits. The need to remove deposits will increase depending on which types of these minerals are present in the water and the service life of the appliance. The deposits can be removed with a chemical cleaning agent such as a descaler or by connecting a water treatment system (partial demineralization). Consult the Technical Service team for the right measures to take in individual cases.

Connection diagram without water treatment

Connection diagram



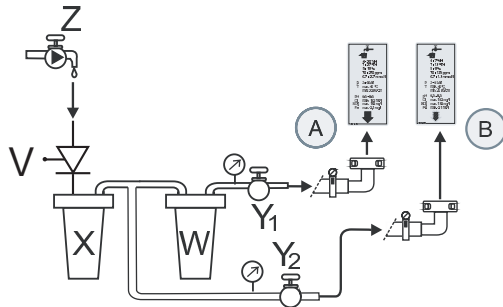
Connections on the appliance



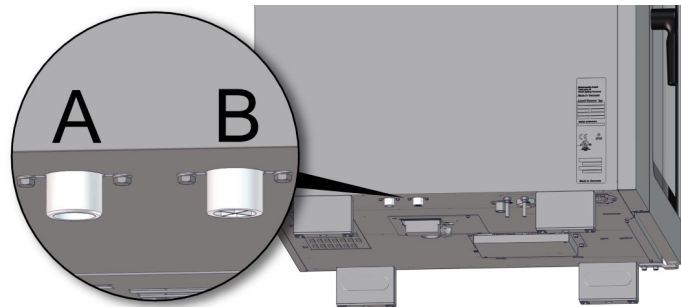
Item	Name	Explanation
A	Water connection for boiler and water injection	Water quality, see 'Technical data' on page 84
B	Water connection for cleaning system and recoil hand shower	Water quality, see 'Technical data' on page 84
C	Water distributor	-
Z	Customer water pipe	Water quality: Drinking water
X	0.08 mm sediment filter	A 0.08 mm sediment filter must be installed if the water has a high level of impurity.
Y	Shut-off device	Water tap
V	Suitable backflow preventer (only required for steam injectors if there is an NSF requirement, otherwise optional)	To satisfy the NSF specifications, the appliance must be installed with suitable backflow protection.

Connection diagram with water treatment

Connection diagram





Connections on the appliance

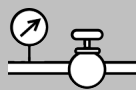


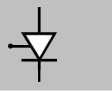
Item	Name	Explanation
A	Water connection for boiler and water injection	Water quality, see 'Technical data' on page 84
B	Water connection for cleaning system and recoil hand shower	Water quality, see 'Technical data' on page 84
Z	Customer water pipe	Water quality: Drinking water
X	0.08 mm sediment filter	A 0.08 mm sediment filter must be installed if the water has a high level of impurity.
W	Water treatment for softening the water to the required soft water quality (can be omitted in the case of adequate soft water quality)	Recommendation: Partial demineralization cartridge
Y ₁ /Y ₂	Shut-off devices	Water tap
V	Suitable backflow preventer (only required for steam injectors if there is an NSF requirement, otherwise optional)	To satisfy the NSF specifications, the appliance must be installed with suitable backflow protection.

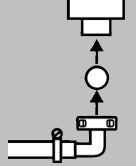
Installing the water supply in accordance with the connection diagram

- 

Flush through the customer's water supply pipe (Z).
- 

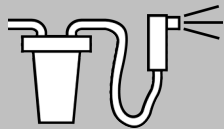
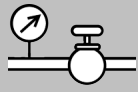

Fit the sediment filter (X) and, if necessary, a water treatment system (W).
- 

Fit a separate shut-off device for each appliance (Y or Y₁/Y₂).
- 

If needed, fit a suitable backflow preventer (V) in the water supply line (see connection diagram).
- 

Connect the appliance as shown in the 'Connection drawing' on page 111.

6 Installation

6.		Flush through the sediment filter by operating the recoil hand shower.
7.		Once the water supply has been installed, close the shut-off device.
8.		Inform the user about the service intervals for the filters, and the water treatment system if applicable.

6.4.2 Test the water quality

Materials required

You will need the following materials:

- 1 sample container for taking samples
- 1 conductivity meter (part no. 3019007)
- Analysis kit for measuring general hardness and carbonate hardness, including two analysis containers (part no. 3019010)
- Protective gloves

Test the water quality

Measure the electrical conductivity and general hardness of the water By following the instructions included with the tester and analysis kit.

Compare the measured values with the recommended values; see 'Technical data' on page 84.

6.4.3 Drain connection

Regulations for the drain connection

You must comply with local and national regulations on the design of the drain connection and on the composition of the wastewater. These include:

- DIN 1988 part 2 and part 4
- DIN EN 1717
- Local wastewater regulations

For appliances with an NSK certificate, the following regulations must also be observed:

- International Code Council (ICC) or the unified Plumbing Code from the International Association of Plumbing and Mechanical Officials (IAPMO)
- Regulations from the National Sanitation Foundation (NSF)

Drain piping and connections must comply with the International Plumbing Code 2003, International Code Council (ICC) or the Uniform Plumbing Code 2003, International Association of Plumbing and Mechanical Officials (IAPMO).

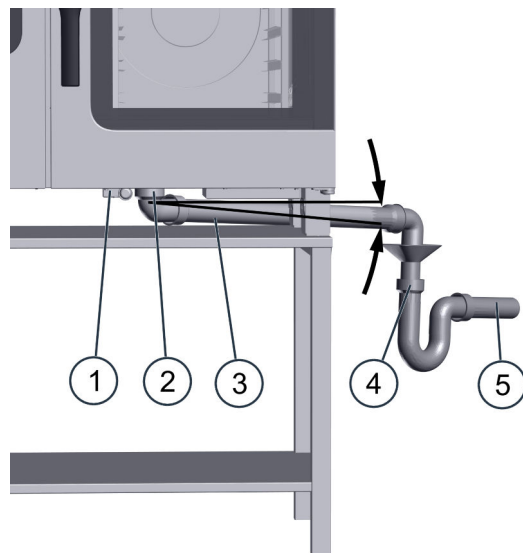
▲ Rules for safe installation of the drain connection

Observe the following rules to prevent hazards caused by a faulty drain connection:

- There must be no restriction or reduction in the cross-section of the drain pipe.
- The slope of the drain pipe must equal min. 3.5% (2°).
- If more than one appliance is connected to one drain pipe, this pipe must be large enough to allow the wastewater to flow out unchecked.
- The appliance must be connected to the drain using a NON-flexible pipe. An open funnel waste trap is recommended; alternatively, a fixed connection can be installed.

Connection diagram

The following illustration shows the connection diagram for the wastewater installation on a size 6.10 combi oven as an example for all appliances:



Item	Name	Function
1	Safety overflow	<ul style="list-style-type: none"> ▪ On the appliance floor, connection point M, see 'Connection drawing' on page 111 ▪ Used to drain away water in the event of a fault (blockage).
2	Appliance drain	On the appliance floor, connection point C, see 'Connection drawing' on page 111
3	Drain pipe DN 50	<ul style="list-style-type: none"> ▪ Minimum internal diameter = 46 mm ▪ Slope min. 3.5% (2°)
4	Funnel waste trap/odour trap	Recommended for blocking smells
5	Drain pipe DN 50	<ul style="list-style-type: none"> ▪ Minimum internal diameter = 46 mm ▪ Slope min. 3.5% (2°)

Connecting the appliance to the drain

Connect the appliance as shown in the connection diagram. Use the flat bend supplied.

6.5 Installing the fully automatic oven cleaning system

6.5.1 Layout of the fully automatic oven cleaning system

Cleaning agent and rinse aid

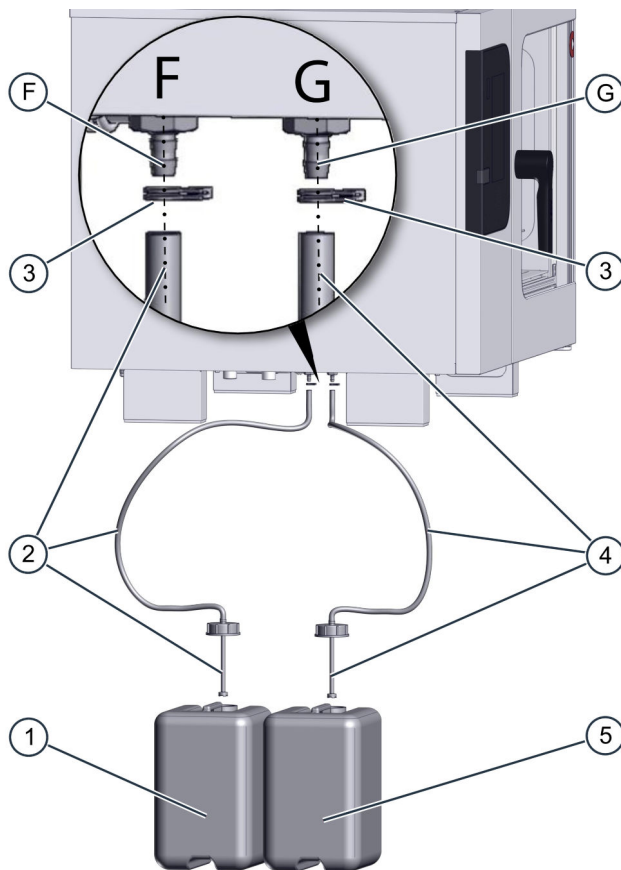
Use only the cleaning fluids specified here to clean the combi oven.

NOTICE Damage caused as a result of improper use of cleaning agents will invalidate any warranty claims.

The following table shows the approved cleaning agent and rinse aid:

Name	Product	Label color
Cleaning agents	ConvoClean forte / new	red
Rinse aid	ConvoCare	green

Layout of the fully automatic oven cleaning using connected canisters



Item	Name	Color coding
1	Canister containing ConvoCare rinse aid (ready-to-use solution in defined mixing ratio)	green (label)
2	Delivery tube for rinse-aid suction nozzle	green (tube)
3	D10 wire clip	-
4	Extractor tube for cleaning agent suction nozzle	red (tube)
5	Canister containing ConvoClean new or ConvoClean forte	red (label)
F	Appliance connector for rinse aid supply	green (lettering)
G	Appliance connector for cleaning agent supply	red (lettering)

Box for cleaning-fluid canisters (optional accessory)

The box for the cleaning-fluid canisters is an optional accessory for the combi oven and is available from the manufacturer.

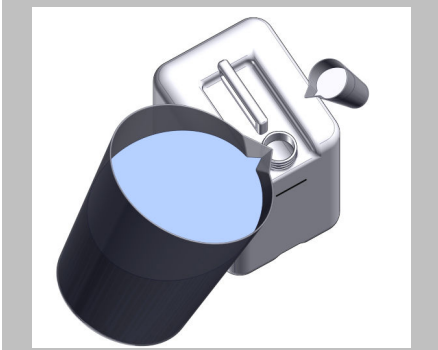
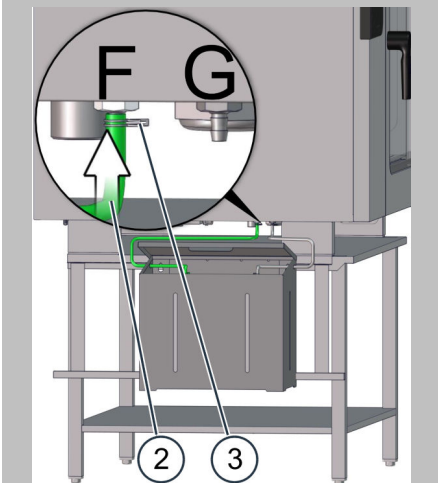
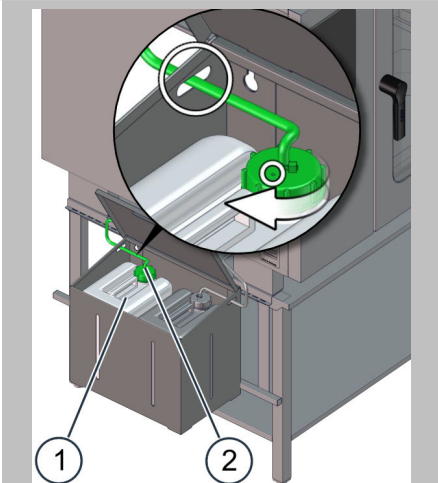
Installation location for the cleaning-agent and rinse aid canisters

Install the canisters as follows:

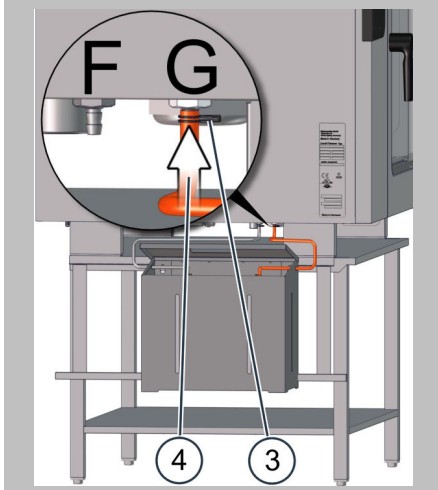
- The canisters should be located for easy access beside the appliance on a flat surface.
- The surface on which the canister sits must not lie above the level at which the appliance feet meet the appliance case.
- The surface on which the canister sits must not lie more than 1 metre below this level.

6.5.2 Connecting the fully automatic oven cleaning system

Connecting the fully automatic oven cleaning system to canisters

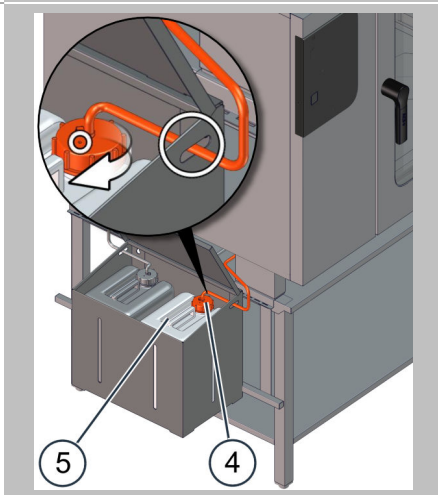
-  1. Mix the supplied ConvoCare K concentrate with soft water in the empty ConvoCare rinse aid canister. Follow the instructions in the user manual on mixing the ConvoCare rinse aid in the canister.
-  2. Plug the green extractor tube (2) for the ConvoCare rinse aid onto the connector nipple of the rear tube fitting (F) and secure the tube in place with the wire clip (3) (see label for rinse-aid connection on the left-hand side of the appliance).
-  3. Insert the suction nozzle on the green extractor tube (2) into the rinse aid canister (1). There must be no kinks in the tube and the vent hole in the canister must be open and unblocked.

4.



Plug the red extractor tube (4) for the ConvoClean forte or ConvoClean new cleaning agent onto the connector nipple of the front tube fitting (G) and secure the tube in place with the wire clip (3) (see label for cleaning-agent connection on the left-hand side of the appliance).

5.



Insert the suction nozzle on the red extractor tube (4) into the cleaning agent canister (5). There must be no kinks in the tube and the vent hole in the canister must be open and unblocked.

6.6 Installing the grease collecting canister

6.6.1 Connecting the grease collecting canister

Accessories required

The ConvoGrill is supplied with the following original accessories, which you need to use in order to connect the automatic grease removal system. Use solely these original accessories:

- Connecting tube with screw cap for screw-fitting on canister
- Grease collecting canister (empty canister for receiving extracted grease)
- Hose clip for securing the connecting tube on the combi oven.
- Forked bracket for holding the canister screw-cap and connecting tube while the grease collecting canister is being emptied and cleaned.

Connecting the grease collecting canister (ConvoGrill)

- | | | |
|----|--|---|
| 1. | | Check the accessories for damage, and only continue with the installation if all the parts are intact and leak-tight. |
| 2. | | Plug the bare end of the connecting tube (2) of the automatic grease collecting system onto the outlet pipe (1) at the back underneath the combi oven, and secure the tube (2) with the hose clip (3). |
| 3. | | Screw the canister screw-cap (4) attached to the connecting tube (2) onto the grease collecting canister (5). |
| 4. | | Place the grease collecting canister (5) in a suitable position and make sure there are no kinks in the connecting tube (2). |
| 5. | | Fix the forked bracket (6) within reach of the outlet pipe (1). This bracket will be used to hold the canister screw-cap (4) and connecting tube. To fix in place, use the double-sided adhesive tape on the back of the bracket or the pre-drilled holes in the bracket. |
- For appliances with a disappearing door:**
Do NOT position the bracket (6) on that side of the combi oven alongside which the appliance door slides back.

Installation position for the grease collecting canister

Install the grease collecting canister in accordance with the following requirements:

- The canister must be positioned upright and with easy access beside the appliance on a flat surface.
- The surface on which the canister sits must not lie more than 15 cm above the surface supporting the appliance.
- The user's work area must not be obstructed.

7 Putting into service

7.1 Safe working when putting the appliance into service

For your safety when using the combi oven

Before putting the combi oven into service, it is essential that you familiarize yourself with the rules and hazard warnings specified in the chapter 'For your safety' in the User manual, and follow the instructions given there. Follow the instructions in the relevant sections of the User manual when testing cooking operations and cleaning operations.

On smelling gas

If you smell gas, take the following actions:

- Cut off the gas supply immediately.
- Ventilate the room carefully.
- Do not operate any electrical equipment. Do not create a spark.
- Evacuate the building.
- Notify the gas utility company and if necessary the fire brigade using a phone located outside the hazardous area.

Basic rules for safe operation

If it is known or evident that the combi oven has been moved after installation without authorization (whether intentionally or unintentionally), the appliance must not be put back into service until all the following requirements have been met:

- The appliance and fittings or accessories being used show no signs of damage.
- The installed electrical power cables, water supply pipes and pipes for wastewater and cleaning products show no signs of damage, are fixed securely, are not leaking from any point and appear safe and in working order on visual inspection.
- The 'Requirements relating to the operating condition of the combi oven' on page 17 are met.
- The 'Requirements relating to the operating environment of the combi oven' on page 17 are met.
- All warning signs are in their designated position.

On gas appliances only:

- A gas service engineer has leak-tested all the gas components in the combi oven and confirmed that all connection and supply points for these gas components, inside and outside the appliance, are gastight.

Rules for safe operation of the appliance

To avoid hazards, the following rules must be observed during operation:

- The air vent and exhaust outlet and the ventilation port on the top of the appliance, and the ventilation holes in the appliance base must not be covered, obstructed or blocked.
- The racks must be attached securely.
- The food containers must be inserted correctly as stipulated in 'Positioning the cooking containers' in the user manual.
- The suction panel must be locked properly in place.

7.2 Procedure for putting the appliance into service

Checks prior to putting the appliance into service

Before preparing the combi oven for first-time use, check that the following requirements are met:

- The appliance and fittings or accessories being used show no signs of damage.
- The appliance has been set up so that it cannot slide about or tip over; the requirements for the installation position and the area around the appliance have been met (see section 'Appliance' on page 31).
- Protective films, cardboard packaging and transport securing devices etc. have been removed completely.
- The cooking chamber contains no stored items or food nor any equipment other than necessary cooking accessories (e. g. food containers).
- The appliance is installed in accordance with the requirements in the chapter 'Installation' on page 50.
- The installed electrical power cables, water supply pipes and pipes for wastewater and cleaning products show no signs of damage, are fixed securely, are not leaking from any point and appear safe and in working order on visual inspection.
- The appliance was subjected to an individual electrical test (see below).
- All safety devices are in their designated position and are working correctly.
- All warning signs are in their designated position.
- The appliance and any accessories and fitting used have been cleaned properly.

The appliance must not be put into operation until all the specified requirements are met.




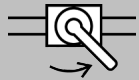
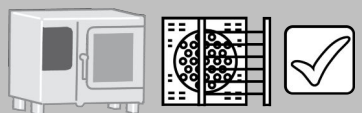
Individual electrical test

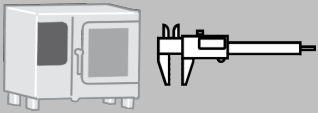


The individual electrical test comprises the following three steps:

- Observation: Visual inspection for damage or improper use
- Measurement: Carry out prescribed measurements in accordance with accepted engineering standards (protective earth resistance, insulating resistance, protective earth current / leakage current)
- Testing: Functional test








The individual electrical test must be repeated regularly in accordance with the legal regulations.

Preparing the appliance for first-time use

1.		Bring the ambient temperature to the permitted operating temperature.
2.		Switch on the circuit breaker.
3.		Open the water supply.
4.		Open the gas supply system (applies to gas appliances).
5.		Check that the following are seated properly and in the correct position: <ul style="list-style-type: none"> ▪ Suction panel ▪ Racks

6.		<p>Measure the door gap at the front of the appliance, as specified in 'Measuring appliance gaps' on page 82: If any measured values lie outside the tolerance range, or the top edge of the appliance door is not flush with the top edge of the appliance case, the appliance door must be adjusted. Adjust the gap as described in the servicing documentation or contact the manufacturer.</p>
7.		<p>Switch on the combi oven.</p>
8.		<p>Make the following settings:</p> <ul style="list-style-type: none"> ▪ Date ▪ Time ▪ Language

Putting the appliance into use

1.		<p>Start the cooking operation using the following cooking data:</p> <ul style="list-style-type: none"> ▪ 'Combi-steam' operating mode ▪ 150 °C ▪ 10 minutes
2.		<p>Check the following points:</p> <ul style="list-style-type: none"> ▪ Is the oven light illuminated? ▪ Is the fan running? ▪ Are there any leaks in the water supply and wastewater systems? ▪ Does the temperature rise inside the cooking chamber?
3.		<p>Start the cooking operation using the following cooking data:</p> <ul style="list-style-type: none"> ▪ 'Steam' operating mode ▪ 100 °C ▪ 10 minutes
4.		<p>Check whether steam is being generated in the cooking chamber (Open the appliance door carefully).</p>
5.		<p>Only for Convotherm 4 injection appliances: Use the pressure regulator to adjust the pressure to give the correct reading at the pressure gauge in the steam generation water supply:</p> <ul style="list-style-type: none"> ▪ [kPa] 100 (1 bar)
6.		<p>Start fully automatic oven cleaning using the cleaning profile for light soiling.</p>
7.		<p>Check that the cleaning process runs without an error message.</p>

Customer guidance and instruction.

Instruct the user in all safety-related functions and devices. Instruct the user in how to operate the appliance, and complete the checklist supplied with the appliance.

Warranty information

In order to be able to claim under the warranty for the combi oven, the appliance must be installed in accordance with the instructions in this installation manual by a qualified service engineer from an authorized service company. The manufacturer must be in receipt of a fully completed checklist, enclosed with the appliance, before a warranty claim can be dealt with.

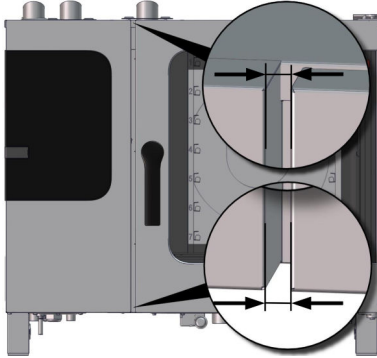
The warranty does not cover damage resulting from improper setup, installation, use, cleaning, use of cleaning agents, servicing, repair or descaling.

To extend the spare parts warranty to 2 years, you need to register the appliance on the manufacturer's homepage (www.convotherm.de) after installing the appliance.

7.3 Measuring appliance gaps

Measuring appliance gaps

The measured widths of the appliance gaps must lie within the following tolerance ranges:



Name	Measurement condition	Tolerance range
Door gap at the front of the appliance	The appliance door is closed.	12 ± 1 mm

If the door gap does not lie within tolerance, please contact Customer service.

8 Removal from service and disposal

8.1 Removal from service and disposal

Rules for safe and responsible working when removing the appliance from service

Avoid any risks to yourself and others by following the rules below:

- The kitchen floor must always be kept dry to reduce the risk of accidents.
- The appliance door to the combi oven must be closed and the door handle removed before disposing of the appliance.
- The cleaning agents must be disposed of in accordance with the instructions on the canisters in order to avoid damage to the environment.

Requirements

Before removing the appliance from service, check the following points:

- The appliance is de-energized.
- The gas supply system is shut off.
- The water supply is shut off.

Removal from service

To remove your appliance from service, follow the steps for setting up and installing your appliance in the reverse order (see the chapters 'Installation' on page 50, 'Moving the appliance' on page 29 and 'Setting up the appliance' on page 31).

Do not move the appliance until you have disconnected all the connections.

The following tasks must be performed correctly to remove the appliance from service:

- Disconnecting the water connection from the appliance
- Removing the drain connection from the appliance
- Disconnecting or isolating the electrical supply
- Disconnecting the gas supply from the appliance
- Disconnecting the exhaust gas extraction system
- Removing the door catch
- Disconnecting the cleaning agent and rinse aid connections
- Correct disposal of the cleaning fluids in accordance with the EC safety datasheets and as instructed on the cleaning agent containers
- Removing the grease collecting canister
- Professional disposal of extracted waste grease in accordance with national laws and the regulations of local disposal companies and authorities

Disposal

The appliance must not be disposed of with the household refuse, as bulk waste or in contravention of regulations.



Contact the manufacturer for guidance on the environmentally safe disposal of your appliance. The manufacturer is certified to the ISO 14001:2004 environmental management standard and will dispose of your old appliance in accordance with valid environmental protection regulations.

9 Technical data

9.1 Dimensions and weights

C4 EB/ES dimensions

		6.10	6.20	10.10	10.20
Appliance including packaging					
Width	[mm]	1100	1345	1100	1345
Height	[mm]	1025	1025	1300	1300
Depth	[mm]	940	1140	940	1140
Appliance excluding packaging					
Width for appliance with right-hinged appliance door	[mm]	792	992	792	992
Width for appliances with disappearing door inclusive of guide fixing bracket	[mm]	966	1211	966	1211
Height	[mm]	786	786	1058	1058
Depth with appliance door closed	[mm]	792	992	792	992
Safety clearances					
Rear	[mm]	50	50	50	50
Right, for appliance with right-hinged appliance door	[mm]	50	50	50	50
Right, for appliances with disappearing door	[mm]	50	50	50	50
Left (larger gap recommended for servicing)	[mm]	50	50	50	50
Top (for ventilation)	[mm]	500	500	500	500

C4 GB/GS dimensions

		6.10	6.20	10.10	10.20
Appliance including packaging					
Width	[mm]	1100	1345	1100	1345
Height	[mm]	1025	1025	1300	1300
Depth	[mm]	940	1140	940	1140
Appliance excluding packaging					
Width for appliance with right-hinged appliance door	[mm]	875	1120	875	1120
Width for appliances with disappearing door inclusive of guide fixing bracket	[mm]	966	1211	966	1211
Height	[mm]	786	786	1058	1058
Depth with appliance door closed	[mm]	792	992	792	992
Safety clearances					
Rear	[mm]	50	50	50	50
Right, for appliance with right-hinged appliance door	[mm]	50	50	50	50
Right, for appliances with disappearing door	[mm]	50	50	50	50
Left (larger gap recommended for servicing)	[mm]	50	50	50	50
Top (for ventilation)	[mm]	1000	1000	1000	1000

C4 EB weights

		6.10	6.20	10.10	10.20
Weight excluding packaging					
excluding ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	118	144	126	189
- Disappearing door	[kg]	126	152	136	199
including ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	124	150	132	195
- Disappearing door	[kg]	132	158	142	205
including ConvoClean / ConvoClean+, including ConvoSmoke					
- Right-hinged door	[kg]	129	155	137	200
- Disappearing door	[kg]	137	163	147	210
Weight of packaging					
Weight of packaging	[kg]	25	35	28	38

C4 ES weights

		6.10	6.20	10.10	10.20
Weight excluding packaging					
excluding ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	108	132	114	174
- Disappearing door	[kg]	116	140	124	190
including ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	114	138	120	180
- Disappearing door	[kg]	122	146	130	195
including ConvoClean / ConvoClean+, including ConvoSmoke					
- Right-hinged door	[kg]	119	143	125	185
- Disappearing door	[kg]	127	151	135	184
Weight of packaging					
Weight of packaging	[kg]	25	35	28	38

C4 GB weights

		6.10	6.20	10.10	10.20
Weight excluding packaging					
excluding ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	125	153	132	200
- Disappearing door	[kg]	133	161	142	210
including ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	131	159	138	206
- Disappearing door	[kg]	139	167	148	216
including ConvoClean / ConvoClean+, including ConvoSmoke					

		6.10	6.20	10.10	10.20
- Right-hinged door	[kg]	136	164	143	211
- Disappearing door	[kg]	144	172	153	221
Weight of packaging					
Weight of packaging	[kg]	25	35	28	38

C4 GS weights

		6.10	6.20	10.10	10.20
Weight excluding packaging					
excluding ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	111	138	118	185
- Disappearing door	[kg]	119	146	128	195
including ConvoClean / ConvoClean+, excluding ConvoSmoke					
- Right-hinged door	[kg]	117	144	124	191
- Disappearing door	[kg]	125	152	134	201
including ConvoClean / ConvoClean+, including ConvoSmoke					
- Right-hinged door	[kg]	122	149	129	196
- Disappearing door	[kg]	130	157	139	206
Weight of packaging					
Weight of packaging	[kg]	25	35	28	38

9.2 Maximum permissible loading weight

C4 EB/ES/GB/GS

The total weight of items placed on the shelf levels must not exceed the maximum permissible loading weight of the combi oven:

		6.10	6.20	10.10	10.20
Maximum load					
Per combi oven	[kg]	30	60	50	100
Per shelf	[kg]	15	15	15	15

9.3 Electrical supply, EB/ES

C4 EB (three-phase FC)

		6.10	6.20	10.10	10.20
3~ 400 V 50/60 Hz					
Rated power consumption	[kW]	11.0	19.5	19.5	33.7
Convection power	[kW]	10.6	19.1	19.1	33.3
Steam power	[kW]	9.1	18.1	18.1	27.2
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	15.9	28.1	28.1	48.7
Fuse rating	[A]	16	35	35	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	5G4	5G6	5G6	5G16
Residual-current device	Type	B	B	B	B

C4 ES (three-phase FC)

		6.10	6.20	10.10	10.20
3~ 400 V 50/60 Hz					
Rated power consumption	[kW]	11.0	19.5	19.5	33.7
Convection power	[kW]	10.6	19.1	19.1	33.3
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	15.9	28.1	28.1	48.7
Fuse rating	[A]	16	35	35	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	5G4	5G6	5G6	5G16
Residual-current device	Type	B	B	B	B

C4 EB (single-phase FC)

		6.10	6.20	10.10	10.20
3N~ 400V 50/60Hz (3/N/PE)					
Rated power consumption	[kW]	11.0	19.5	19.5	33.7
Convection power	[kW]	10.6	19.1	19.1	33.3
Steam power	[kW]	9.1	18.1	18.1	27.2
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	15.9	28.1	28.1	48.7
Fuse rating	[A]	16	32	32	50
Residual current	[mA]	~7.5	~7.5	~7.5	~7.5
Protective earth current	[mA]	~7.5	~7.5	~7.5	~7.5
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	5G4	5G6	5G6	5G16
Residual-current device	Type	A/B	A/B	A/B	A/B

3~ 230V 50/60Hz (3/PE)					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Steam power	[kW]	9.0	18.0	18.0	27.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	27.4	48.5	48.5	84.0
Fuse rating	[A]	35	50	50	100
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G6	4G16	4G16	4G35
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 ES (single-phase FC)

		6.10	6.20	10.10	10.20
3N~ 400V 50/60Hz (3/N/PE)					
Rated power consumption	[kW]	11.0	19.5	19.5	33.7
Convection power	[kW]	10.6	19.1	19.1	33.3
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	15.9	28.1	28.1	48.7
Fuse rating	[A]	16	32	32	50
Residual current	[mA]	~7.5	~7.5	~7.5	~7.5
Protective earth current	[mA]	~7.5	~7.5	~7.5	~7.5
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	5G4	5G6	5G6	5G16
Residual-current device	Type	A/B	A/B	A/B	A/B
3~ 230V 50/60Hz (3/PE)					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	27.4	48.5	48.5	84.0
Fuse rating	[A]	35	50	50	100
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G6	4G16	4G16	4G35
Residual-current device	Type	A/B	A/B	A/B	A/B

9.4 Electrical supply, GB/GS

C4 GB (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 230V 50/60Hz (1/N/PE)					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Steam power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	2.7	2.7	2.7	2.7
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.9	-	7.5	-
Protective earth current	[mA]	28.0	-	14.3	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 GS (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 230V 50/60Hz (1/N/PE)					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	2.3	2.3	2.3	2.3
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.0	7.0	6.9	-
Protective earth current	[mA]	28.0	33.0	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

9.5 Electrical supply, Japan

C4 EB (single-phase FC)

		6.10	6.20	10.10	10.20
3~ 200 V 50/60 Hz (3/PE)					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Steam power	[kW]	9.0	18.0	18.0	27.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	31.5	55.8	55.8	96.6
Fuse rating	[A]	35	63	63	100
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G6	4G16	4G16	4G35
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 ES (single-phase FC)

		6.10	6.20	10.10	10.20
3~ 200 V 50/60 Hz (3/PE)					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	31.5	55.8	55.8	96.6
Fuse rating	[A]	35	63	63	100
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G6	4G16	4G16	4G35
Residual-current device	Type	A/B	A/B	A/B	A/B

9.6 Electrical supply, Korea

C4 EB/ES (single-phase FC)

		6.10	6.20	10.10	10.20
3~ 220 V 60 Hz (3/PE)					
Rated power consumption	[kW]	10.0	17.7	17.7	30.5
Convection power	[kW]	9.6	17.3	17.3	30.2
Steam power (EB only)	[kW]	8.2	16.5	16.5	24.7
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	28.6	46.3	46.3	80.0
Fuse rating	[A]	35	50	50	100
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G6	4G10	4G16	4G35
Residual-current device	Type	A/B	A/B	A/B	A/B
3N~ 380 V 60 Hz (3/N/PE)					
Rated power consumption	[kW]	9.9	17.6	17.6	30.4
Convection power	[kW]	9.6	17.2	17.2	30.1
Steam power (EB only)	[kW]	8.2	16.3	16.3	24.5
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	15.0	26.7	26.7	46.2
Fuse rating	[A]	16	32	32	50
Residual current	[mA]	~7.5	~7.5	~7.5	~7.5
Protective earth current	[mA]	~7.5	~7.5	~7.5	~7.5
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	5G4	5G6	5G6	5G16
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 GB (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 220V 60Hz (1/N/PE)					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Steam power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	2.7	2.7	2.7	2.7
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.9	-	-	-
Protective earth current	[mA]	28.0	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 GS (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 220V 60Hz (1/N/PE)					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	2.3	2.3	2.3	2.3
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.0	7.0	6.9	-
Protective earth current	[mA]	28.0	33.0	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

9.7 Electrical supply, Mexico/Nicaragua

C4 GB (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 120V 60Hz					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Steam power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.4	0.4	0.4	0.4
Rated current	[A]	5.7	5.7	5.7	5.7
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	2.4	-	10.6	-
Protective earth current	[mA]	-	-	1.6	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B
2~ 230 V 50/60Hz					
Rated power consumption	[kW]	0.6	0.6	0.6	0.6
Convection power	[kW]	0.1	0.1	0.1	0.1
Steam power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	2.7	2.7	2.7	2.7
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.9	-	7.5	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

C4 GS (single-phase FC)

		6.10	6.20	10.10	10.20
1N~ 120V 60Hz					
Rated power consumption	[kW]	0.5	0.5	0.5	0.5
Convection power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.4	0.4	0.4	0.4
Rated current	[A]	4.7	4.7	4.7	4.7
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	2.0	5.7	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B
2~ 230 V 50/60Hz					
Rated power consumption	[kW]	0.5	0.5	0.5	0.5
Convection power	[kW]	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35

9 Technical data

		6.10	6.20	10.10	10.20
Rated current	[A]	2.3	2.3	2.3	2.3
Fuse rating	[A]	16	16	16	16
Residual current	[mA]	7.0	7.0	7.6	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	3G2.5	3G2.5	3G2.5	3G2.5
Residual-current device	Type	A/B	A/B	A/B	A/B

9.8 Electrical supply, marine

C4 EB (three-phase FC)

		6.10	6.20	10.10	10.20
3~ 440V 50/60Hz					
Rated power consumption	[kW]	9.2	16.3	16.3	28.2
Convection power	[kW]	8.8	15.9	15.9	27.8
Steam power	[kW]	7.6	15.1	15.1	22.7
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	12.1	21.4	21.4	37.0
Fuse rating	[A]	16	25	25	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G4	4G6	4G6	4G16
Residual-current device	Type	B	B	B	B
3~ 480V 50/60Hz					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Steam power	[kW]	9.0	18.0	18.0	27.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	13.1	23.3	23.3	40.3
Fuse rating	[A]	16	25	25	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G4	4G6	4G6	4G16
Residual-current device	Type	B	B	B	B

C4 ES (three-phase FC)

		6.10	6.20	10.10	10.20
3~ 440V 50/60Hz					
Rated power consumption	[kW]	9.2	16.3	16.3	28.2
Convection power	[kW]	8.8	15.9	15.9	27.8
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	12.1	21.4	21.4	37.0
Fuse rating	[A]	16	25	25	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G4	4G6	4G6	4G16
Residual-current device	Type	B	B	B	B
3~ 480V 50/60Hz					
Rated power consumption	[kW]	10.9	19.3	19.3	33.4
Convection power	[kW]	10.5	18.9	18.9	33.0
Motor power	[kW]	0.35	0.35	0.35	0.35
Rated current	[A]	13.1	23.3	23.3	40.3
Fuse rating	[A]	16	25	25	50
Residual current	[mA]	-	-	-	-
Protective earth current	[mA]	-	-	-	-
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm ²]	4G4	4G6	4G6	4G16
Residual-current device	Type	B	B	B	B

9.9 Gas specification, natural gas 2H (E), natural gas 2L (LL), propane 3P, liquefied gas 3B/P

C4 GB/GS

Gas type		Natural gas 2H (E)	Natural gas 2L (LL)	Propane 3P	Liquefied gas 3B/P
Standard test gas, code		G20	G25	G31	G30/G31
Operating materials					
Natural gas, liquid gas		x	x	x	x
Gas supply values					
Gas pipe connection		R 3/4"	R 3/4"	R 3/4"	R 3/4"
Supply flow pressure	[mbar]	20 (17 - 25)	20/25 (18 - 30)	29/37/50 (25 - 57.5)	29/37/50 (25 - 57.5)
Gas data (as per CE) at 15 °C and 1013 mbar dry					
Lower Wobbe Index W_i	[MJ/m ³]	45.7 (36.8 - 49.6)	37.4 (30.9 - 40.5)	70.7 (68.1 - 70.7)	80.6 (68.1 - 80.6)
Upper Wobbe Index W_s	[MJ/m ³]	50.7 (40.9 - 54.7)	41.5 (34.4 - 44.8)	76.8 (72.9 - 76.8)	87.3 (72.9 - 87.3)
Lower calorific value H_i	[MJ/m ³]	34	29.3	88	116.1
	[MJ/kg]	-	-	46.3	45.7
Higher calorific value H_s	[MJ/m ³]	37.8	32.5	95.7	125.8
	[MJ/kg]	-	-	50.4	49.5
Exhaust gas extraction system					
Air ventilation system with safety shutdown		mandatory	mandatory	mandatory	mandatory
Exhaust gas values					
CO ₂	[%]	9.3 - 9.5	9.1 - 9.3	10.8 - 11.2	12.8 - 13.3
CO	[ppm]	< 500	< 500	< 500	< 500

9.10 Gas specification, The Netherlands

C4 GB/GS

Gas type		Natural gas 2H (E)	Natural gas 2K**	Propane 3P	Liquefied gas 3B/P
Standard test gas, code		G20	G25.3	G31	G30/G31
Operating materials					
Natural gas, liquid gas		x	x	x	x
Gas supply values					
Gas pipe connection		R 3/4"	R 3/4"	R 3/4"	R 3/4"
Supply flow pressure	[mbar]	20 (17 - 25)	25 (20 - 30)	29/37/50 (25 - 57.5)	29/37/50 (25 - 57.5)
Gas data (as per CE) at 15 °C and 1013 mbar dry					
Lower Wobbe Index W_i	[MJ/m ³]	45.7 (36.8 - 49.6)	38.5 (37.2 - 38.9)	70.7 (68.1 - 70.7)	80.6 (68.1 - 80.6)
Upper Wobbe Index W_s	[MJ/m ³]	50.7 (40.9 - 54.7)	42.7 (41.2 - 43.0)	76.8 (72.9 - 76.8)	87.3 (72.9 - 87.3)
Lower calorific value H_i	[MJ/m ³]	34	29.9	88	116.1
	[MJ/kg]	-	-	46.3	45.7
Higher calorific value H_s	[MJ/m ³]	37.8	33.2	95.7	125.8
	[MJ/kg]	-	-	50.4	49.5
Exhaust gas extraction system					
Air ventilation system with safety shutdown		mandatory	mandatory	mandatory	mandatory
Exhaust gas values					
CO ₂	[%]	9.3 - 9.5	9.1 - 9.3	10.8 - 11.2	12.8 - 13.3
CO	[ppm]	< 500	< 500	< 500	< 500

**Dit toestel is afgesteld voor de toestelcategorie K (I2K) en is geschikt voor het gebruik van G en G+ distributiegassen volgens de specificaties zoals die zijn weergegeven in de NTA 8837:2012 Annex D met een Wobbe-index van 43,46 – 45,3 MJ/m³ (droog, 0 °C, bovenwaarde) of 41,23 – 42,98 (droog, 15 °C, bovenwaarde).

Dit toestel kan daarnaast worden omgebouwd en/of opnieuw worden afgeregeld voor de toestelcategorie E (I2E). Dit houdt derhalve in dat het toestel: “geschikt is voor G+-gas en H-gas, dan wel aantoonbaar geschikt is voor G+-gas en aantoonbaar geschikt is te maken voor H-gas” in de zin van het “Besluit van 10 mei 2016 tot wijziging van het Besluit gastoeestellen....”

9.11 Gas specification, Australia/New Zealand

C4 GB/GS

Gas type		Natural gas (AUS/NZL)	Propane (AUS/NZL)	Propane 3P	Liquefied gas 3B/P
Standard test gas, code		-	-	G31	G30/G31
Operating materials					
Natural gas, liquid gas		x	x	x	x
Gas supply values					
Gas pipe connection		R 3/4"	R 3/4"	R 3/4"	R 3/4"
Supply flow pressure	[mbar]	11.3 (10.0 - 50.0)	27.5 (27.5 - 60.0)	29/37/50 (25 - 57.5)	29/37/50 (25 - 57.5)
Gas data (as per CE) at 15 °C and 1013 mbar dry					
Lower Wobbe Index W_i	[MJ/m ³]	-	-	70.7 (68.1 - 70.7)	80.6 (68.1 - 80.6)
Upper Wobbe Index W_s	[MJ/m ³]	-	-	76.8 (72.9 - 76.8)	87.3 (72.9 - 87.3)
Lower calorific value H_i	[MJ/m ³]	-	-	88	116.1
	[MJ/kg]	-	-	46.3	45.7
Higher calorific value H_s	[MJ/m ³]	-	-	95.7	125.8
	[MJ/kg]	-	-	50.4	49.5
Exhaust gas extraction system					
Air ventilation system with safety shutdown		mandatory	mandatory	mandatory	mandatory
Exhaust gas values					
CO ₂	[%]	9.5 - 9.7	10.8 - 11.0	10.8 - 11.2	12.8 - 13.3
CO	[ppm]	< 500	< 500	< 500	< 500

9.12 Gas specification, Japan

C4 GB/GS

Gas type		Natural gas 13A (JPN)	Propane (JPN)
Operating materials			
Natural gas, Propane		x	x
Gas supply values			
Gas pipe connection		R 3/4"	R 3/4"
Supply flow pressure	[kPa]	2.0 (1.0 - 2.5)	2.8 (2.0 - 3.3)
Gas data (as per CE) at 15 °C and 1013 mbar dry			
Wobbe index (Ws)	[MJ/m ³ N]	55.3 (52.7 - 57.8)	84.3
Exhaust gas extraction system			
Air ventilation system with safety shutdown		mandatory	mandatory
Exhaust gas values			
Exhaust gas value CO ₂	[%]	9.8 - 10.0	10.9 - 11.3
Exhaust gas value CO	[ppm]	< 500	< 500

9.13 Gas specification, Korea

C4 GB/GS

Gas type		Natural gas 13A (KOR)	Propane (KOR)
Code		LNG	LPG
Operating materials			
Natural gas, Propane		x	x
Gas supply values			
Gas pipe connection		R 3/4"	R 3/4"
Supply flow pressure	[kPa]	2.0 (1.0 - 2.5)	2.8 (2.0 - 3.3)
Gas data (as per CE) at 15 °C and 1013 mbar dry			
Wobbe index (gross)	[MJ/m ³]	56.1 (52.8 - 57.8)	84.6
Gross caloric value (Hs)	[MJ/m ³]	44.5	110
Exhaust gas extraction system			
Air ventilation system with safety shutdown		mandatory	mandatory
Exhaust gas values			
Exhaust gas value CO ₂	[%]	9.3 - 9.5	10.9 - 11.3
Exhaust gas value CO	[ppm]	< 500	< 500

9.14 Gas consumption

C4 GB/GS

		6.10	6.20	10.10	10.20
Australia, New Zealand					
Natural gas (AUS/NZL)	[m ³ /h]	1.1	2.0	2.1	3.0
Propane (AUS/NZL)	[m ³ /h]	0.8	1.5	1.6	3.2
G30/G31: Propane 3P / liquefied gas 3B/P	[kg/h]	0.9	1.6	1.7	2.4
Japan					
Natural gas 13A (JPN)	[m ³ /h]	0.8	-	1.5	-
Propane (JPN)	[kg/h]	0.8	-	1.4	-
Korea					
LNG: Natural gas 13A (KOR)	[m ³ /h]	0.9	1.7	1.7	2.5
LPG: Propane (KOR)	[kg/h]	0.8	1.4	1.5	2.1
The Netherlands					
G20: Natural gas 2H (E)	[m ³ /h]	1.2	2.1	2.1	3.3
G25.3: Natural gas 2K	[m ³ /h]	1.2	2.3	2.3	3.4
G30/G31: Propane 3P / liquefied gas 3B/P	[kg/h]	0.9	1.6	1.7	2.4
Other					
G20: Natural gas 2H (E)	[m ³ /h]	1.2	2.1	2.1	3.3
G25: Natural gas 2L (LL)	[m ³ /h]	1.4	2.5	2.5	3.8
G30/G31: Propane 3P / liquefied gas 3B/P	[kg/h]	0.9	1.6	1.7	2.4

9.15 Exhaust gas output rate

C4 GB/GS

		6.10	6.20	10.10	10.20
Air consumption for combustion					
Air consumption for combustion	[m ³ /h]	24	44	44	68
Exhaust gas output rate					
Exhaust gas output rate	[m ³ /h]	51	92	92	143

9.16 Heat output, natural gas 2H [E], natural gas 2L (LL), propane 3P, liquefied gas 3B/P

C4 GB

		6.10	6.20	10.10	10.20
G20: Natural gas 2H (E) (referred to lower calorific value H_i)					
Convection burner	[kW]	11	21	21	31
Boiler burner	[kW]	11	19	19	31
G25: Natural gas 2L (LL) (referred to lower calorific value H_i)					
Convection burner	[kW]	10.5	20	20	30
Boiler burner	[kW]	10.5	18	18	30
G30/G31: Propane 3P* (referred to lower calorific value H_i)					
Convection burner	[kW]	11.5	21	22	31
Boiler burner	[kW]	11.5	19	20	31

*The heat output is up to 15% higher with 3B/P LPG.

C4 GS

		6.10	6.20	10.10	10.20
G20: Natural gas 2H (E) (referred to lower calorific value H_i)					
Convection burner	[kW]	11	21	21	31
G25: Natural gas 2L (LL) (referred to lower calorific value H_i)					
Convection burner	[kW]	10.5	20	20	30
G30/G31: Propane 3P* (referred to lower calorific value H_i)					
Convection burner	[kW]	11.5	21	22	31

*The heat output is up to 15% higher with 3B/P LPG.

9.17 Heat output, The Netherlands

C4 GB

		6.10	6.20	10.10	10.20
G20: Natural gas 2H (E) (referred to lower calorific value H_i)					
Convection burner	[kW]	11	21	21	31
Boiler burner	[kW]	11	19	19	31
G25.3: Natural gas 2K (referred to lower calorific value H_i)					
Convection burner	[kW]	10.5	20	20	30
Boiler burner	[kW]	10.5	18	18	30
G30/G31: Propane 3P* (referred to lower calorific value H_i)					
Convection burner	[kW]	11.5	21	22	31
Boiler burner	[kW]	11.5	19	20	31

*The heat output is up to 15% higher with 3B/P LPG.

C4 GS

		6.10	6.20	10.10	10.20
G20: Natural gas 2H (E) (referred to lower calorific value H_i)					
Convection burner	[kW]	11	21	21	31
G25.3: Natural gas 2K (referred to lower calorific value H_i)					
Convection burner	[kW]	10.5	20	20	30
G30/G31: Propane 3P* (referred to lower calorific value H_i)					
Convection burner	[kW]	11.5	21	22	31

*The heat output is up to 15% higher with 3B/P LPG.

9.18 Heat output, Australia/New Zealand

C4 GB

		6.10	6.20	10.10	10.20
Natural gas (AUS/NZL)					
Convection burner	[MJ/h]	42	74	81	115
Boiler burner	[MJ/h]	41	74	71	122
Propane (AUS/NZL)					
Convection burner	[MJ/h]	42	74	81	115
Boiler burner	[MJ/h]	41	74	71	122
G30/G31: Propane 3P* (referred to lower calorific value H_i)					
Convection burner	[kW]	11.5	21	22	31
Boiler burner	[kW]	11.5	19	20	31

*The heat output is up to 15% higher with 3B/P LPG.

C4 GS

		6.10	6.20	10.10	10.20
Natural gas (AUS/NZL)					
Convection burner	[MJ/h]	42	74	81	115
Propane (AUS/NZL)					
Convection burner	[MJ/h]	42	74	81	115
G30/G31: Propane 3P					
Convection burner	[kW]	11.5	21	22	31

*The heat output is up to 15% higher with 3B/P LPG.

9.19 Heat output, Japan

C4 GB

		6.10	6.20	10.10	10.20
Natural gas 13A (JPN)					
Convection burner	[kW]	11	-	20	-
Boiler burner	[kW]	11	-	18	-
Propane (JPN)					
Convection burner	[kW]	11.5	-	21	-
Boiler burner	[kW]	11.5	-	19	-

C4 GS

		6.10	6.20	10.10	10.20
Natural gas 13A (JPN)					
Convection burner	[kW]	11	-	20	-
Propane (JPN)					
Convection burner	[kW]	11.5	-	21	-

9.20 Heat output, Korea

C4 GB

		6.10	6.20	10.10	10.20
LNG: Natural gas 13A (KOR)					
Convection burner	[kW]	11	21	21	31
Boiler burner	[kW]	11	19	19	31
LPG: Propane (KOR)					
Convection burner	[kW]	11.5	21	22	31
Boiler burner	[kW]	12	19	19	31

C4 GS

		6.10	6.20	10.10	10.20
Natural gas 13A (KOR)					
Convection burner	[kW]	11	21	21	31
Propane (KOR)					
Convection burner	[kW]	11.5	21	22	31

9.21 Dissipated heat

C4 EB/ES

		6.10	6.20	10.10	10.20
With appliance door closed					
Latent heat	[kJ/h]	2100	3200	2900	4700
	[kW]	0.58	0.89	0.81	1.31
Sensible heat	[kJ/h]	2900	4200	3600	5100
	[kW]	0.81	1.17	1.00	1.42

C4 GB/GS

		6.10	6.20	10.10	10.20
With appliance door closed					
Latent heat	[kJ/h]	2100	3200	2900	4700
	[kW]	0.58	0.89	0.81	1.31
Sensible heat	[kJ/h]	3500	5000	4300	6100
	[kW]	0.97	1.39	1.19	1.69

9.22 Water connection

C4 EB/ES/GB/GS

Water supply (cold only)		
Water supply		2 x G 3/4" fixed connection, optionally including connecting pipe (min. DN13 / 1/2")
Flow pressure	[kPa]	150 - 600 (1.5 - 6 bar)
Pressure gauge in the water supply	[kPa]	100 (1 bar)
Water drain		
Model		Funnel drain with P-trap (recommended) or fixed connection
Type	DN	50
Waste water temperature	[°C]	max. 80
Slope for drain pipe		min. 3.5% (2°)
Safety overflow	[mm]	80 x 25 mm

9.23 Water quality

EB/GB

Water hardness for both water-supply connections: Cleaning, recoil hand shower (A) and boiler (B)

Water quality

- Drinking water
- Hard water

German degrees of hardness (general hardness: GH)	[°dH]	4 - 20
French degrees of hardness	[°fH]	7 - 35
English degrees of hardness	[°e]	5 - 25
International	[ppm]	70 - 360
Chemical	[mmol/l]	0.7 - 3.6

Properties

Temperature	[°C]	max. 40
Electrical conductivity	[µS/cm]	min. 20
pH		6.5 - 8.5
Cl ⁻ (chloride)	[mg/l]	max. 60
Cl ₂ (free chlorine)	[mg/l]	max. 0.2
SO ₄ ²⁻ -(sulphate)	[mg/l]	max. 150
Fe (iron)	[mg/l]	max. 0.1
SiO ₂ (silicate)	[mg/l]	max. 13
NH ₂ Cl (monochloramine)	[mg/l]	max. 0.2

ES/GS

Water hardness for water connection (A) for water injection

Water quality		<ul style="list-style-type: none"> ▪ Drinking water ▪ Soft water
German degrees of hardness (general hardness: GH)	[°dH]	4 - 7
French degrees of hardness	[°fH]	7 - 13
English degrees of hardness	[°e]	5 - 9
International	[ppm]	70 - 125
Chemical	[mmol/l]	0.7 - 1.3

Water hardness for water connection (B) for cleaning system

Water quality		<ul style="list-style-type: none"> ▪ Drinking water ▪ Hard water (or soft water; see above for specification)
German degrees of hardness (general hardness: GH)	[°dH]	4 - 20
French degrees of hardness	[°fH]	7 - 35
English degrees of hardness	[°e]	5 - 25
International	[ppm]	70 - 360
Chemical	[mmol/l]	0.7 - 3.6

Properties

Temperature	[°C]	max. 40
Electrical conductivity	[µS/cm]	min. 20
pH		6.5 - 8.5
Cl ⁻ (chloride)	[mg/l]	max. 60
Cl ₂ (free chlorine)	[mg/l]	max. 0.2
SO ₄ ²⁻ (sulphate)	[mg/l]	max. 150
Fe (iron)	[mg/l]	max. 0.1
SiO ₂ (silicate)	[mg/l]	max. 13
NH ₂ Cl (monochloramine)	[mg/l]	max. 0.2

9.24 Boiler

C4 EB/GB

		6.10	6.20	10.10	10.20
Rating					
Steam output	[l/h]	14.4	28.7	28.7	42.1
Contents					
Volumes	[l]	3.8	6.0	6.0	8.0

9.25 Water consumption, cooking

C4 EB/GB

		6.10	6.20	10.10	10.20
Hard water and soft water					
Average consumption without cleaning	[l/h]	3.0	7.2	6.0	8.8
Maximum possible water flow rate	[l/min]	15	15	15	15

C4 ES/GS

		6.10	6.20	10.10	10.20
Hard water and soft water					
Average consumption without cleaning	[l/h]	3.5	7.6	6.3	11.1
Maximum possible water flow rate	[l/min]	15	15	15	15
Soft water (specification of water treatment system)					
Average consumption without cleaning	[l/h]	2.3	5.1	4.2	7.4
Maximum possible water flow rate	[l/min]	0.6	0.6	0.6	0.6

9.26 Water consumption, cooking and cleaning

C4 EB/GB

		6.10	6.20	10.10	10.20
Hard water and soft water					
Average water consumption including cleaning	[l/h]	6.8	11.0	9.8	12.6

C4 ES/GS

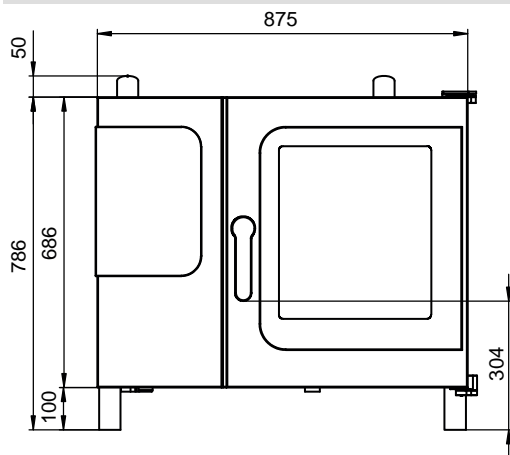
		6.10	6.20	10.10	10.20
Hard water and soft water					
Average water consumption including cleaning	[l/h]	7.3	11.3	10.1	14.8

10 Connection diagrams

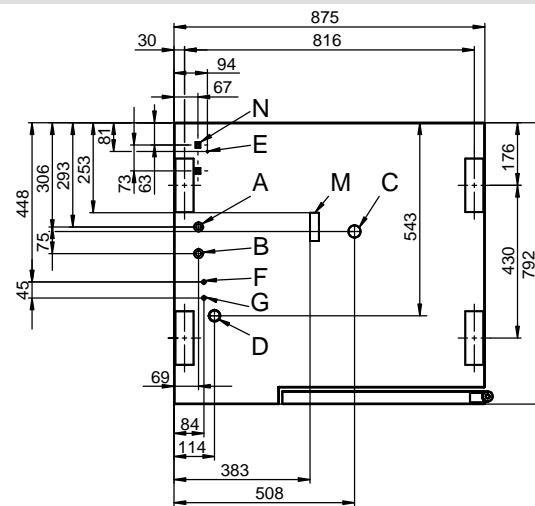
10.1 Convotherm 4 6.10 electric appliance

Dimensions and connection points for C4 6.10 (right-hinged appliance door)

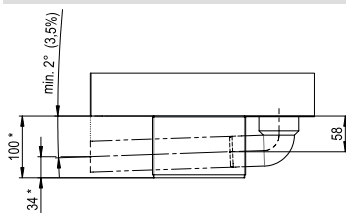
Front view



Connection points in appliance floor

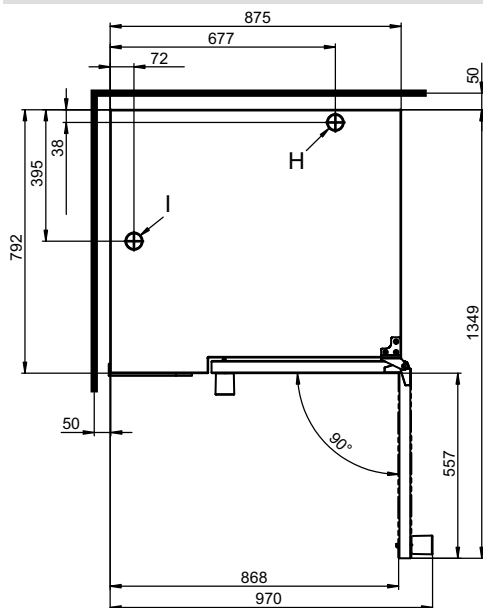


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

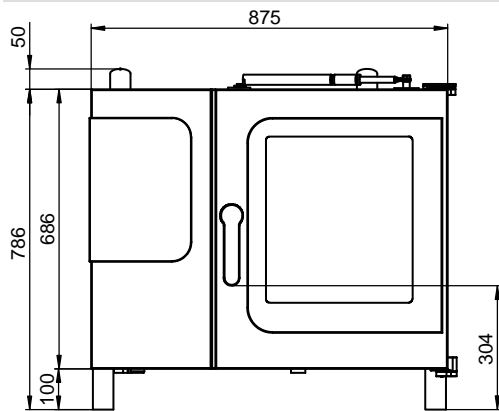


Meaning of labelled elements

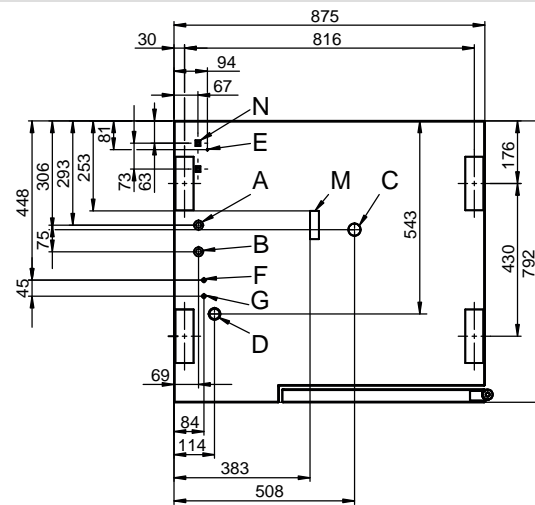
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.10 (right-hinged appliance door / Marine version)

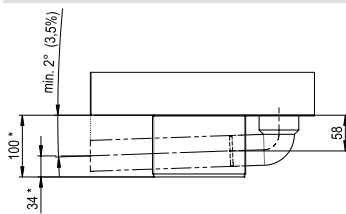
Front view



Connection points in appliance floor

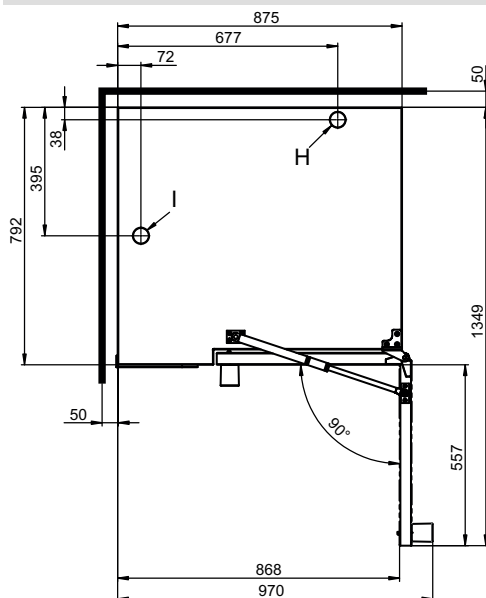


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

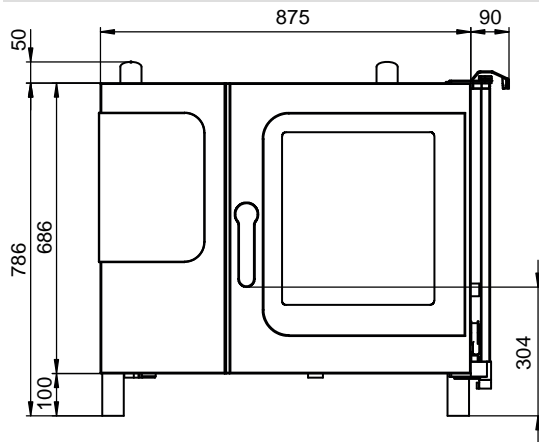


Meaning of labelled elements

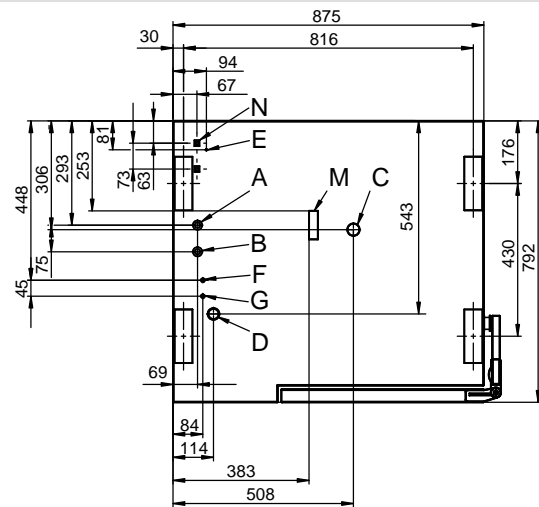
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for 6.10 (disappearing door)

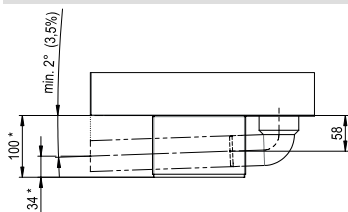
Front view



Connection points in appliance floor

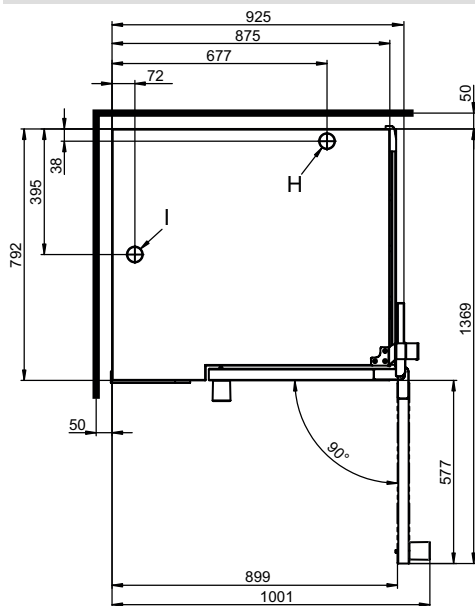


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

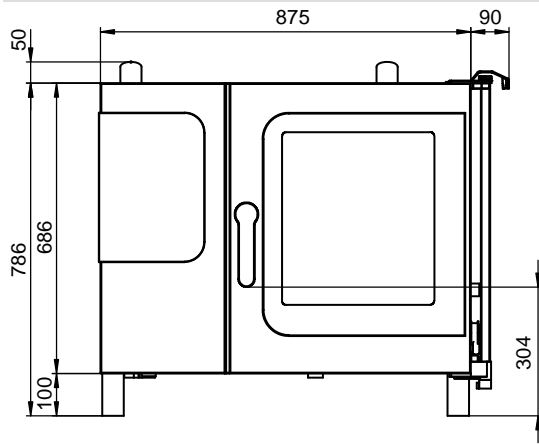


Meaning of labelled elements

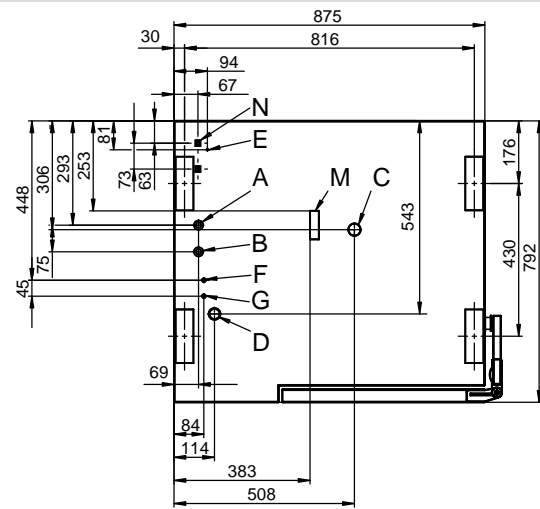
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.10 (disappearing door / Marine version)

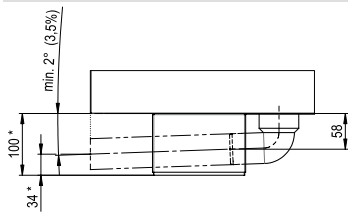
Front view



Connection points in appliance floor

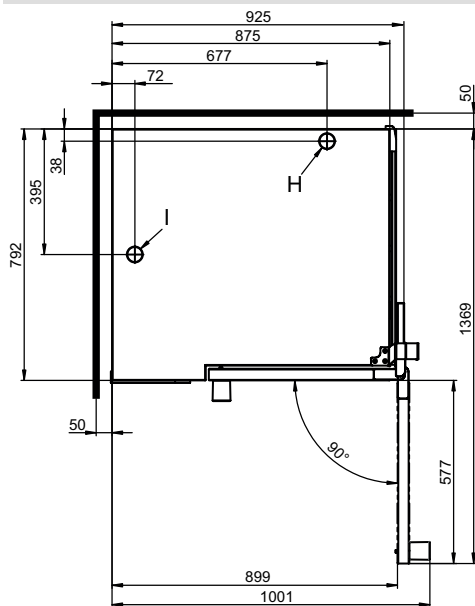


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



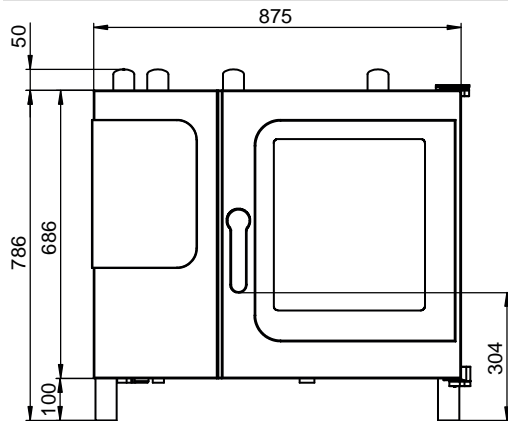
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

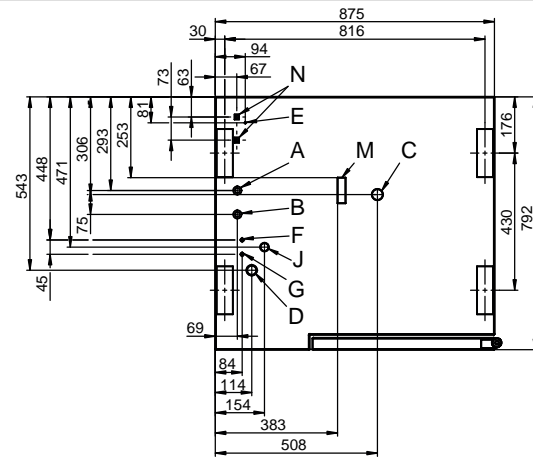
10.2 Convothem 4 6.10 boiler gas appliance

Dimensions and connection points for C4 6.10 (right-hinged appliance door)

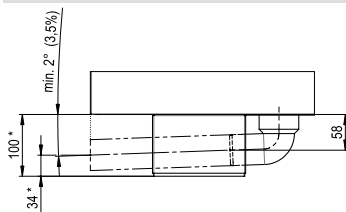
Front view



Connection points in appliance floor

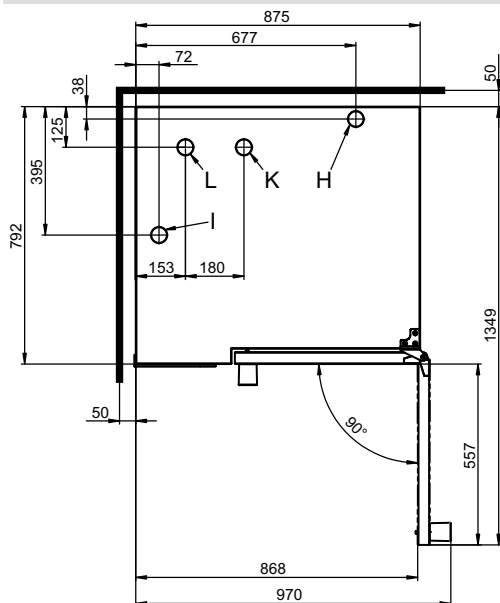


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

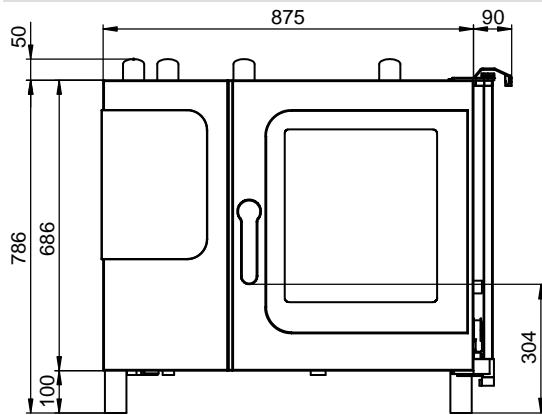


Meaning of labelled elements

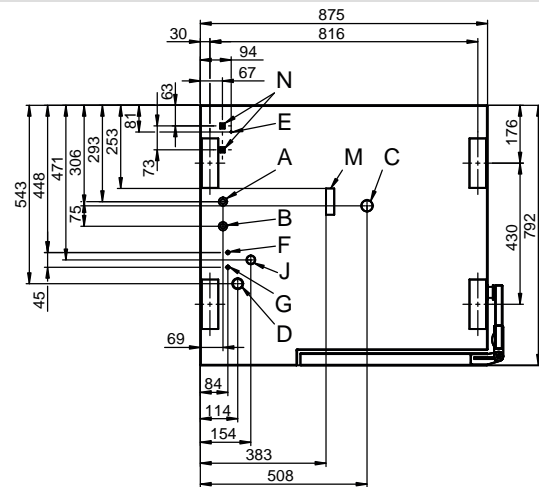
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 50 mm
- L Exhaust outlet for boiler burner \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.10 (disappearing door)

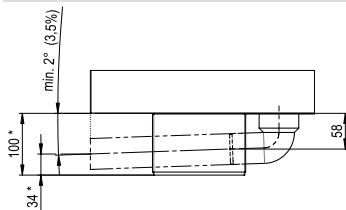
Front view



Connection points in appliance floor

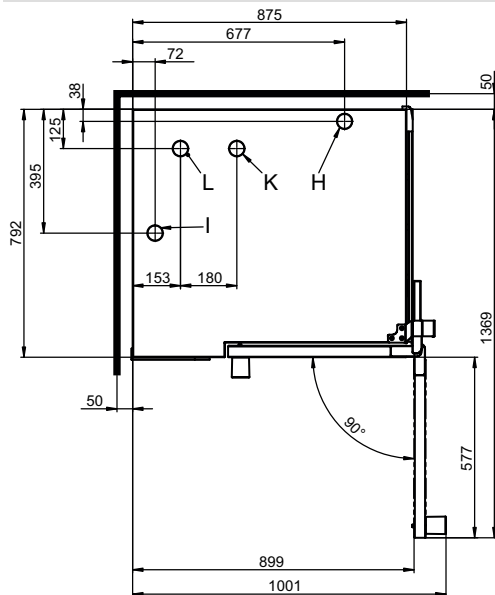


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



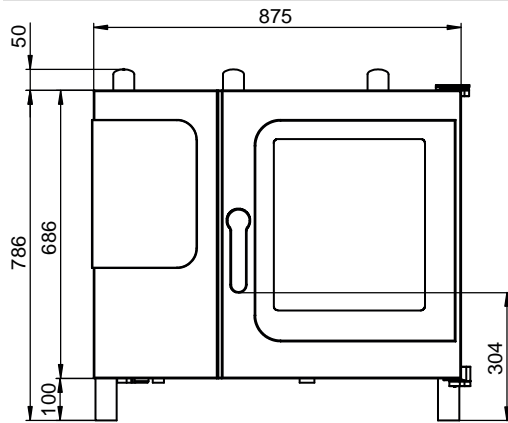
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- J Gas connection
- K Exhaust outlet for convection burner Ø 50 mm
- L Exhaust outlet for boiler burner Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

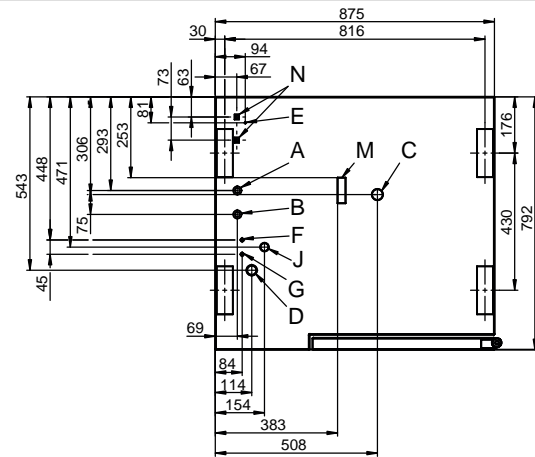
10.3 Convothem 4 6.10 injection gas appliance

Dimensions and connection points for C4 6.10 (right-hinged appliance door)

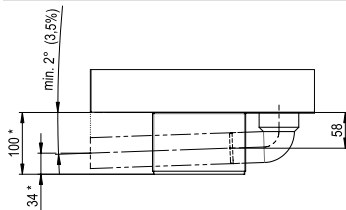
Front view



Connection points in appliance floor

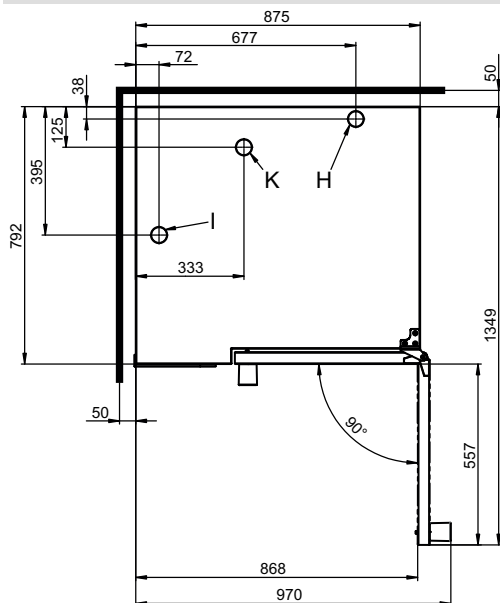


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

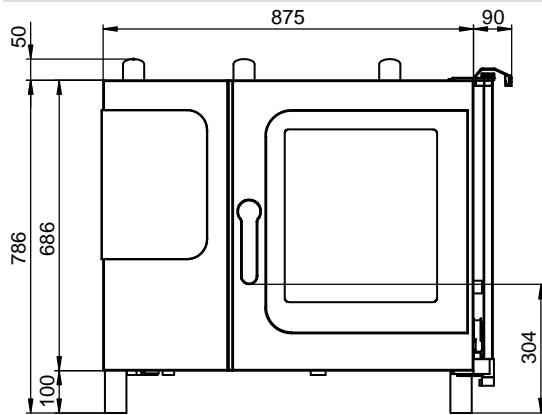


Meaning of labelled elements

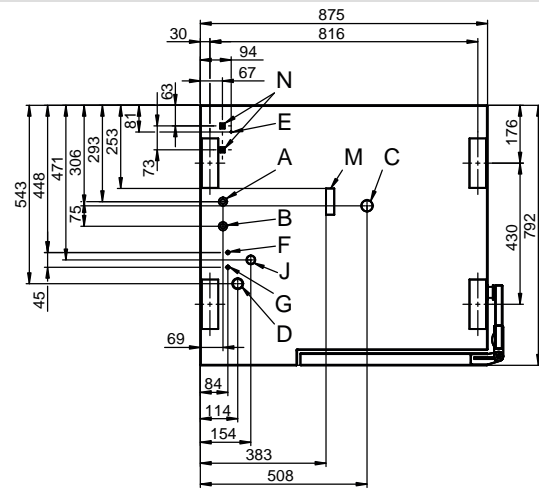
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.10 (disappearing door)

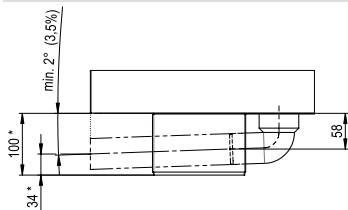
Front view



Connection points in appliance floor

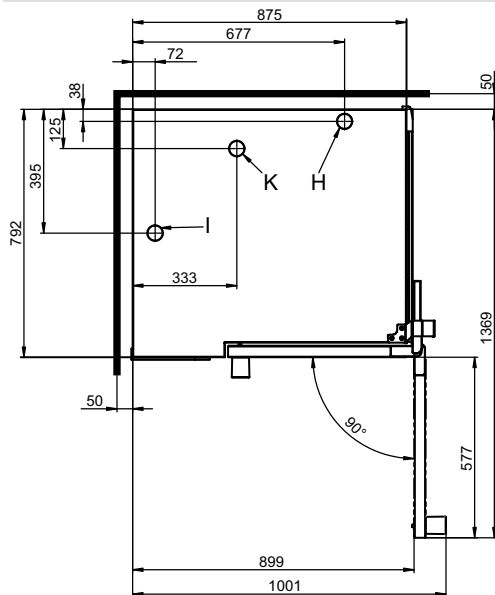


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

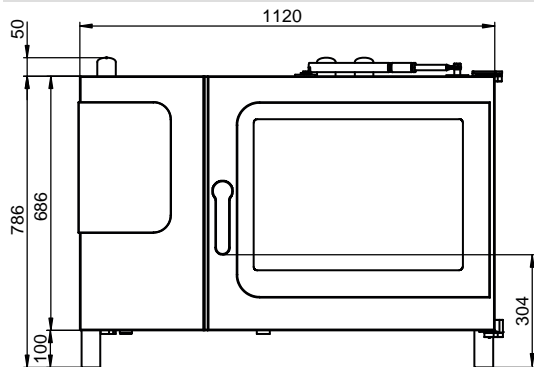


Meaning of labelled elements

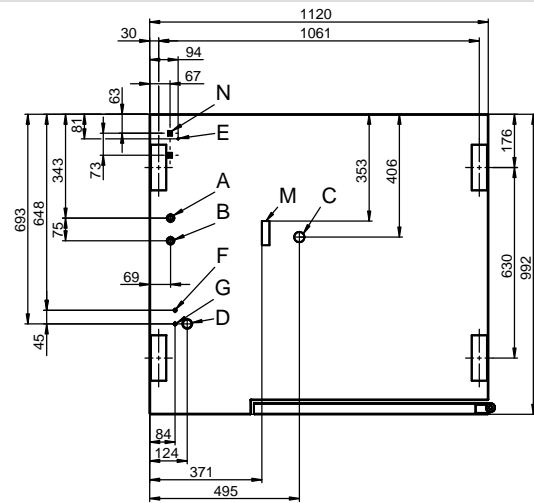
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.20 (right-hinged appliance door / Marine version)

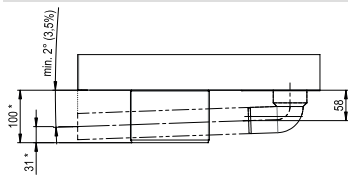
Front view



Connection points in appliance floor

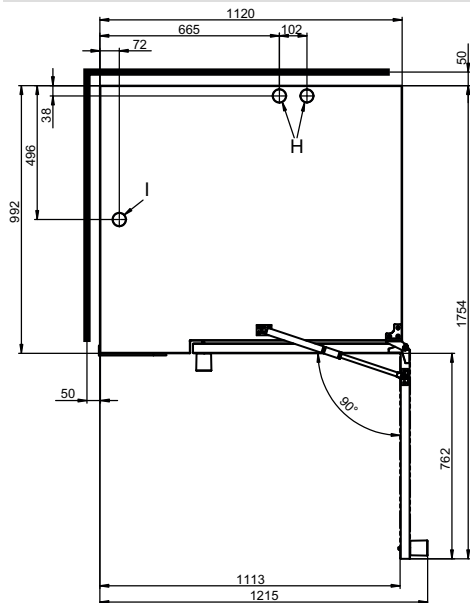


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

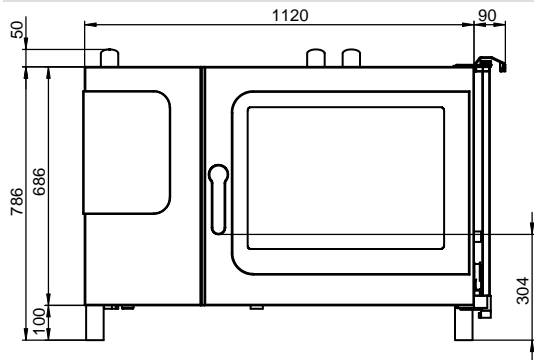


Meaning of labelled elements

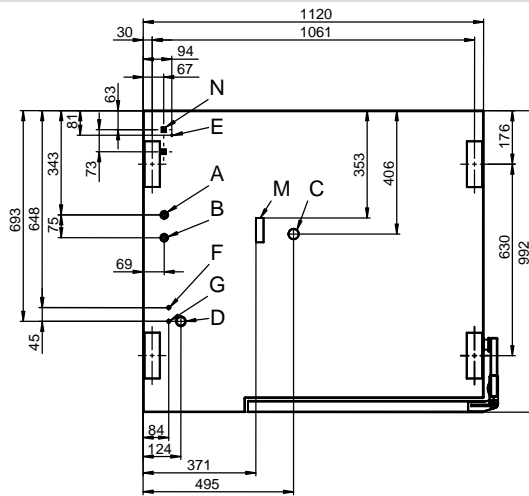
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.20 (disappearing door)

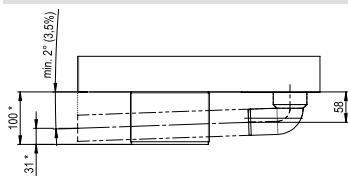
Front view



Connection points in appliance floor

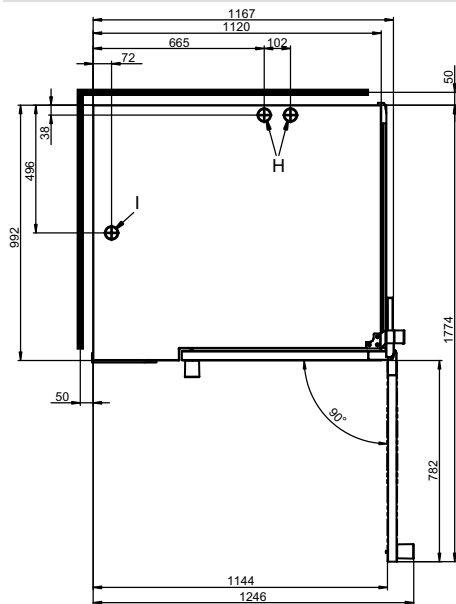


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

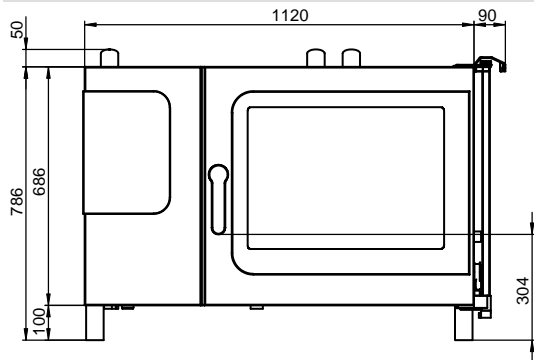


Meaning of labelled elements

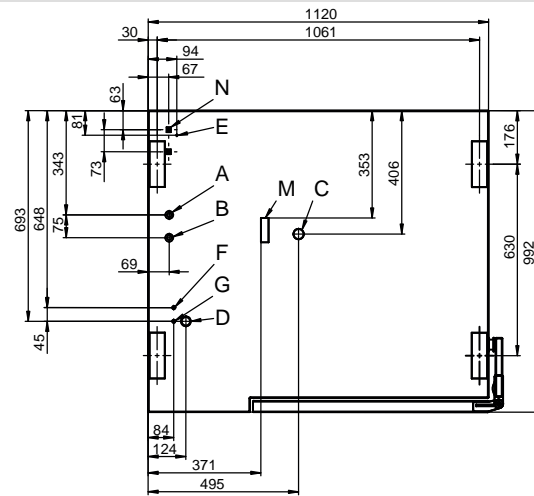
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.20 (disappearing door / Marine version)

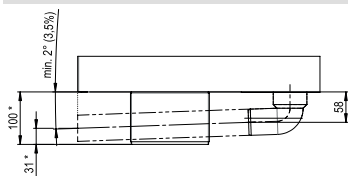
Front view



Connection points in appliance floor

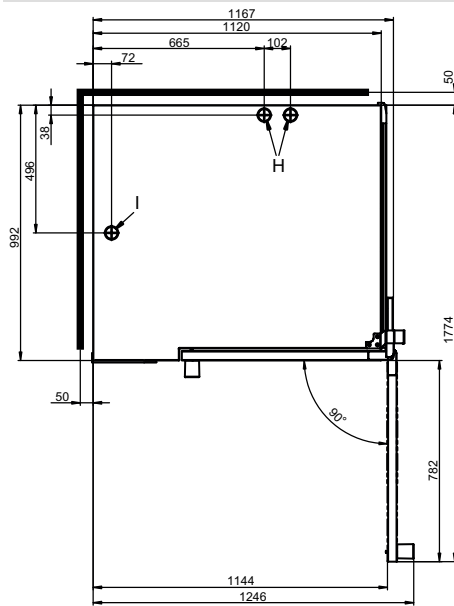


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



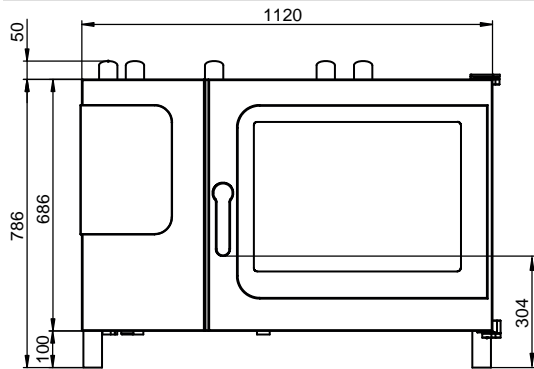
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

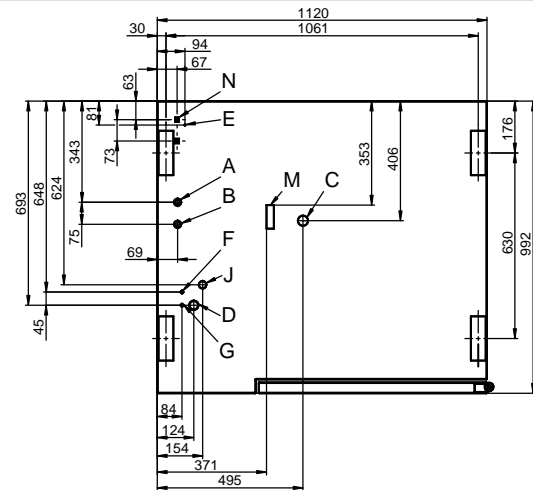
10.5 Convotherm 4 6.20 boiler gas appliance

Dimensions and connection points for C4 6.20 (right-hinged appliance door)

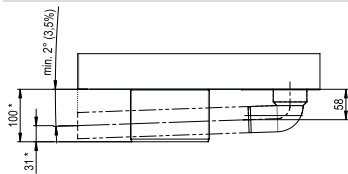
Front view



Connection points in appliance floor

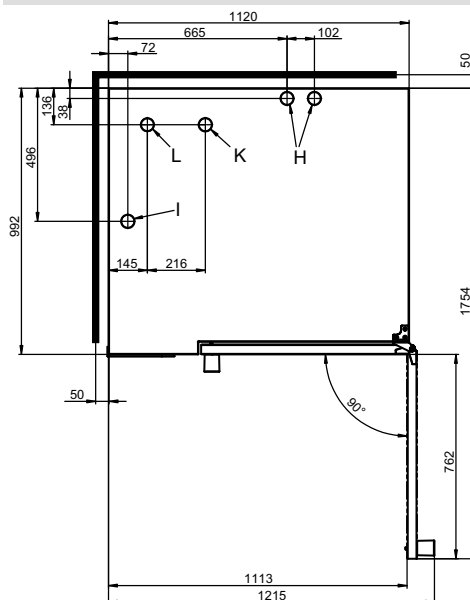


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

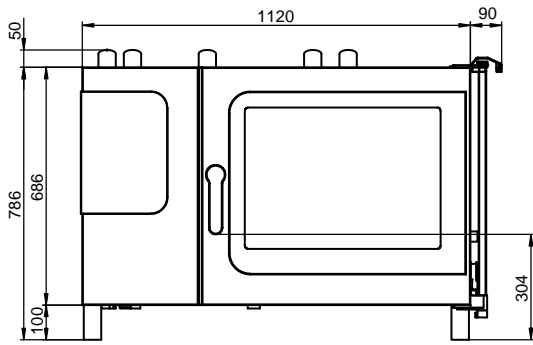


Meaning of labelled elements

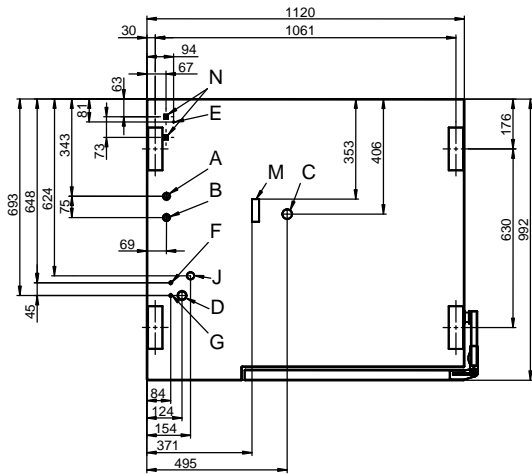
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 50 mm
- L Exhaust outlet for boiler burner \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.20 (disappearing door)

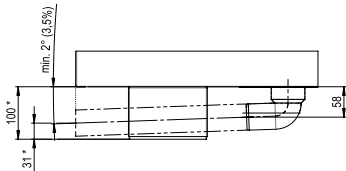
Front view



Connection points in appliance floor

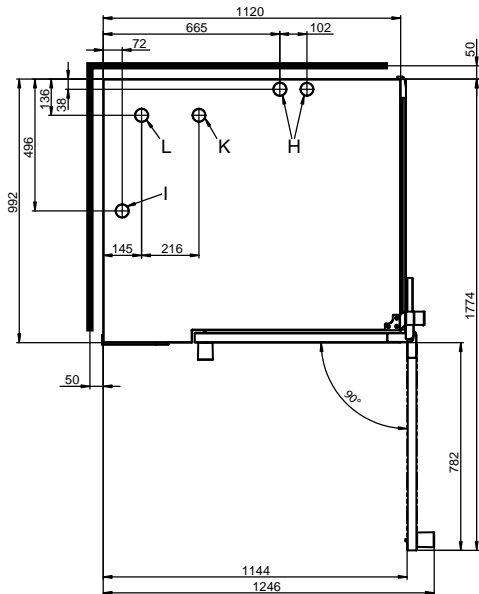


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



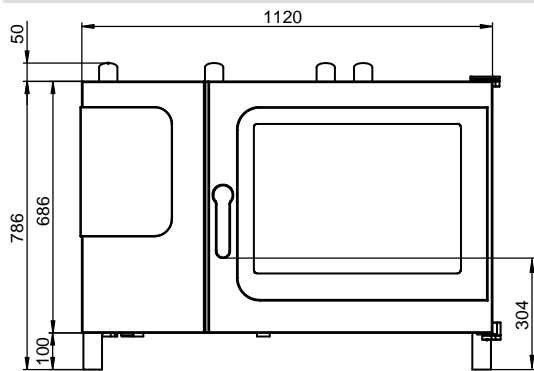
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 50 mm
- L Exhaust outlet for boiler burner \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

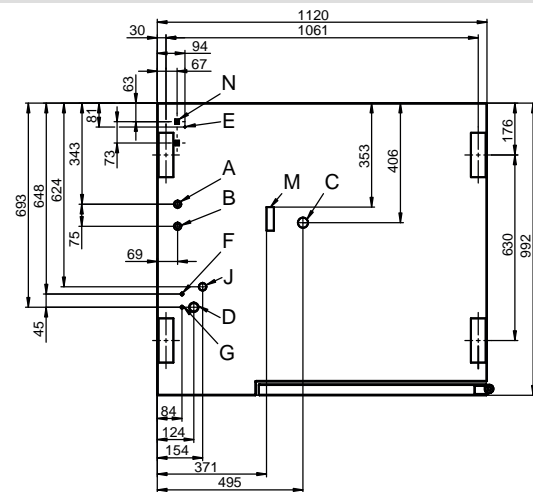
10.6 Convothem 4 6.20 injection gas appliance

Dimensions and connection points for C4 6.20 (right-hinged appliance door)

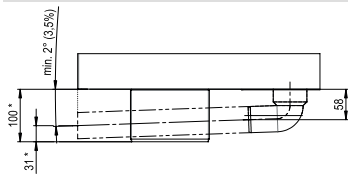
Front view



Connection points in appliance floor

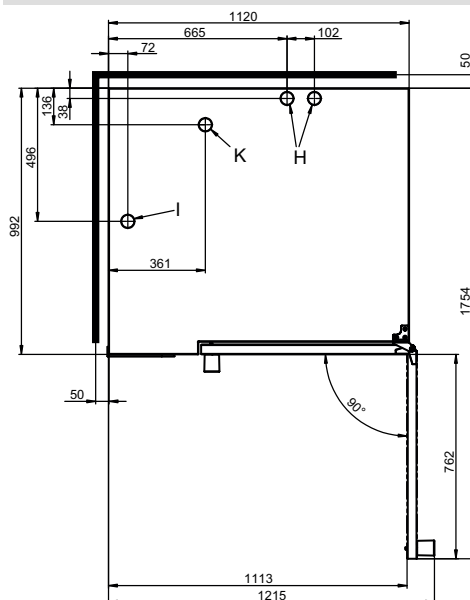


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

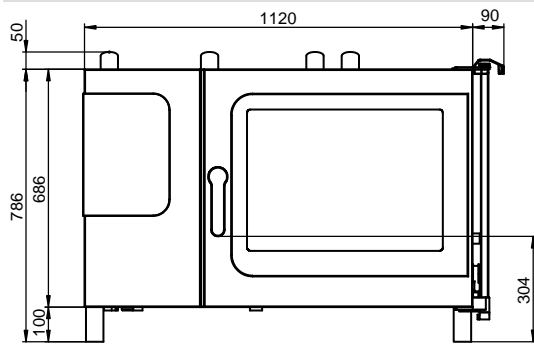


Meaning of labelled elements

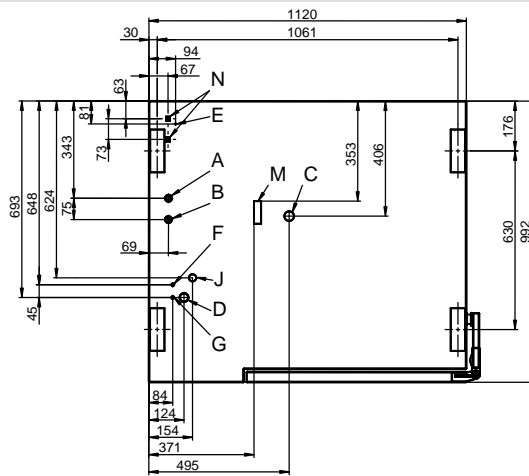
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 6.20 (disappearing door)

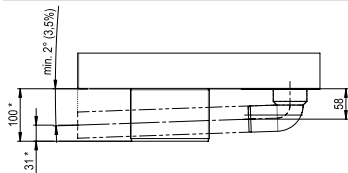
Front view



Connection points in appliance floor

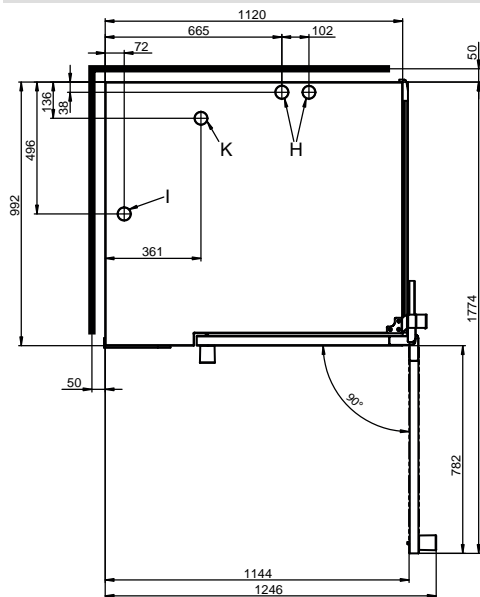


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



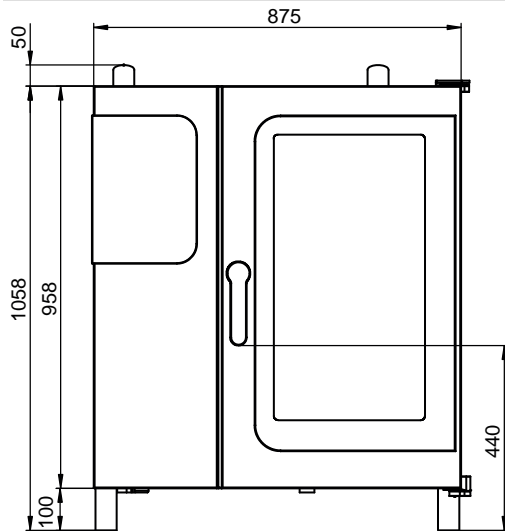
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

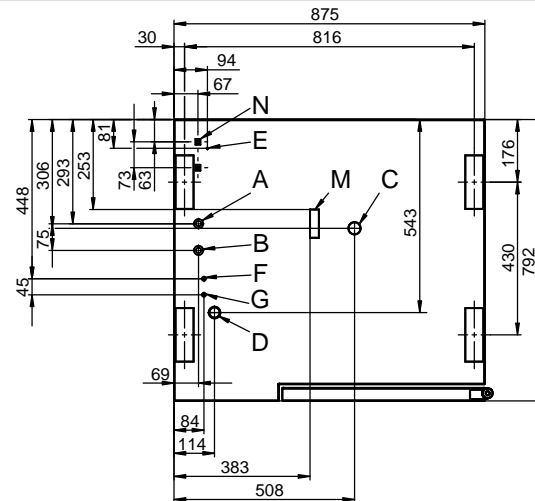
10.7 Convothem 4 10.10 electric appliance

Dimensions and connection points for C4 10.10 (right-hinged appliance door)

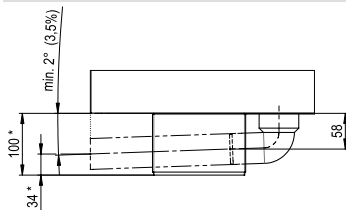
Front view



Connection points in appliance floor

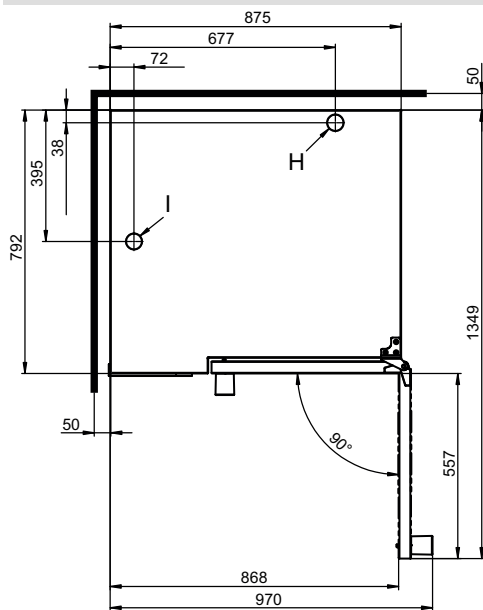


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

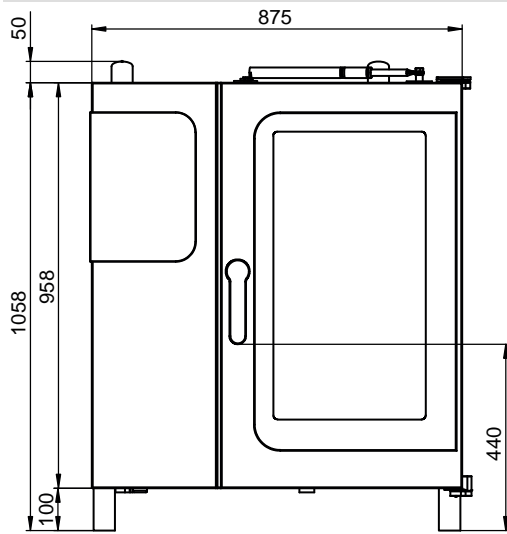


Meaning of labelled elements

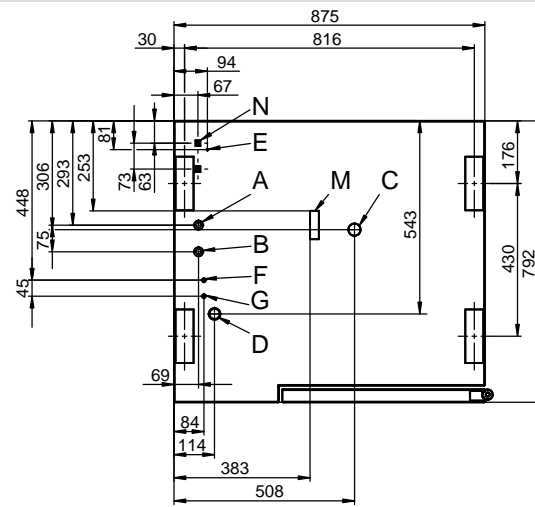
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.10 (right-hinged appliance door / Marine version)

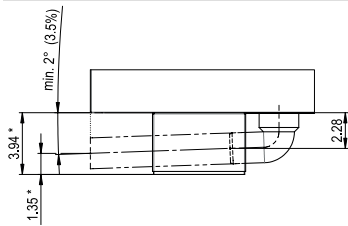
Front view



Connection points in appliance floor

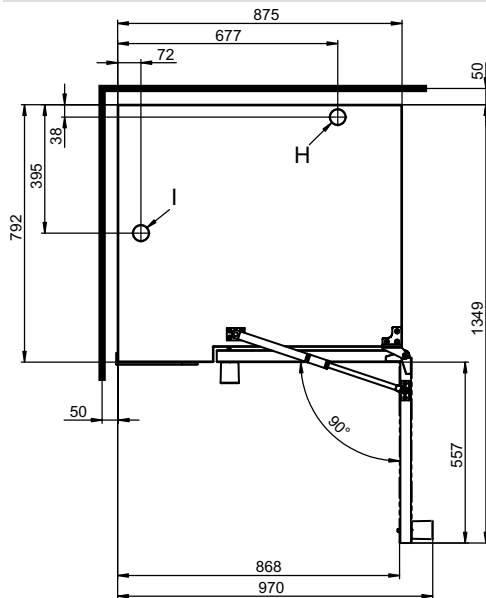


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

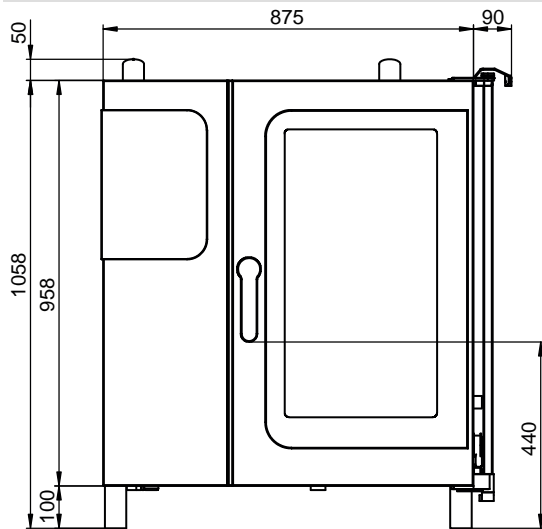


Meaning of labelled elements

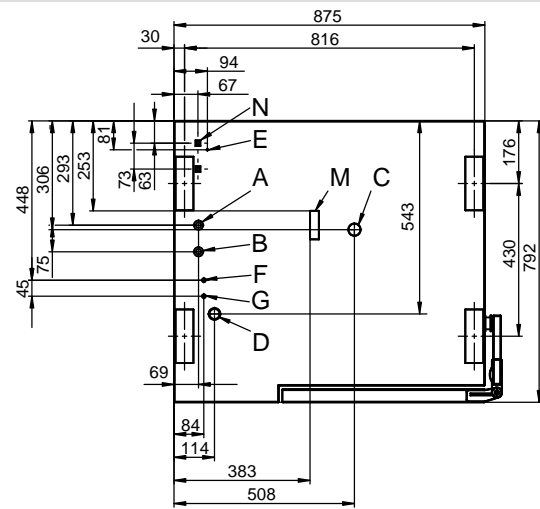
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.10 (disappearing door)

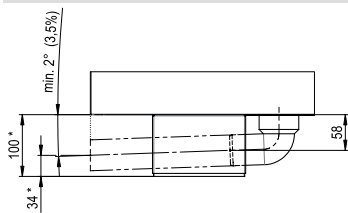
Front view



Connection points in appliance floor

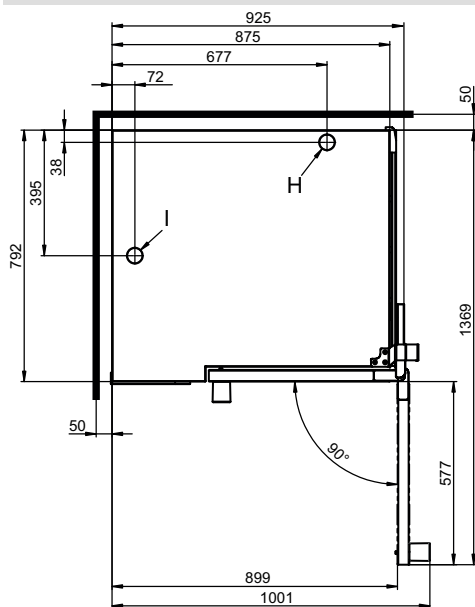


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

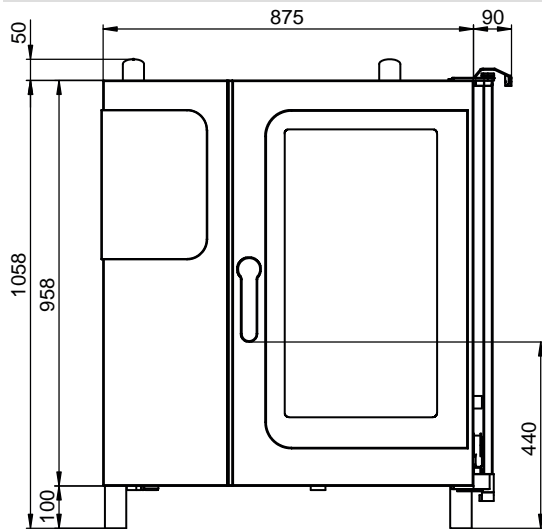


Meaning of labelled elements

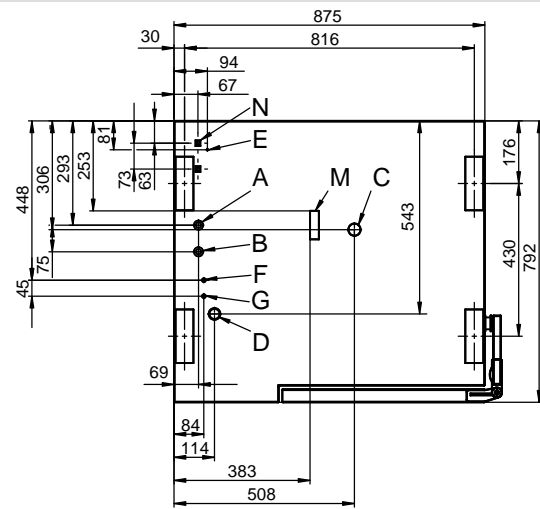
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.10 (disappearing door / Marine version)

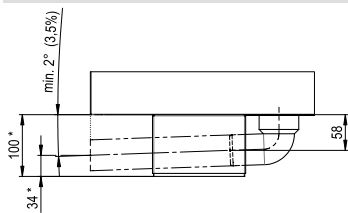
Front view



Connection points in appliance floor

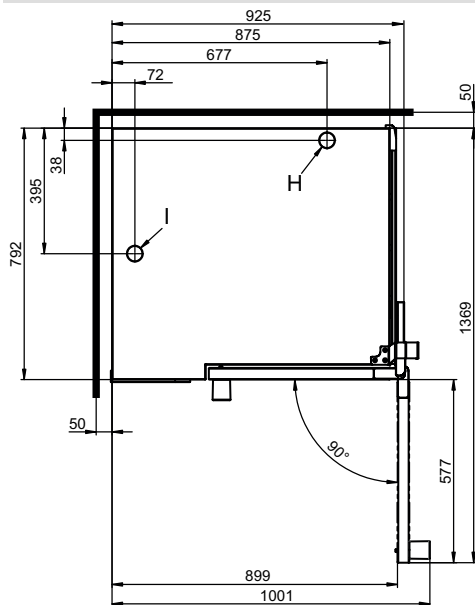


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



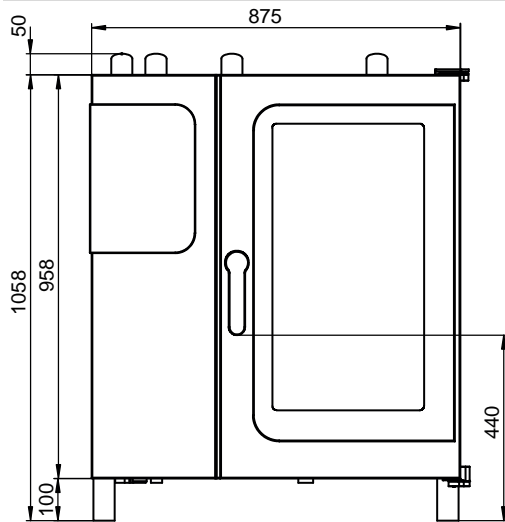
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

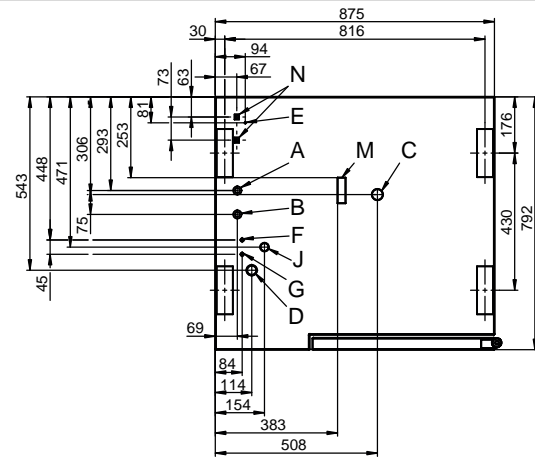
10.8 Convotherm 4 10.10 boiler gas appliance

Dimensions and connection points for C4 10.10 (right-hinged appliance door)

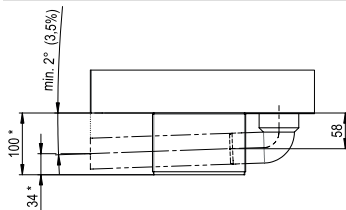
Front view



Connection points in appliance floor

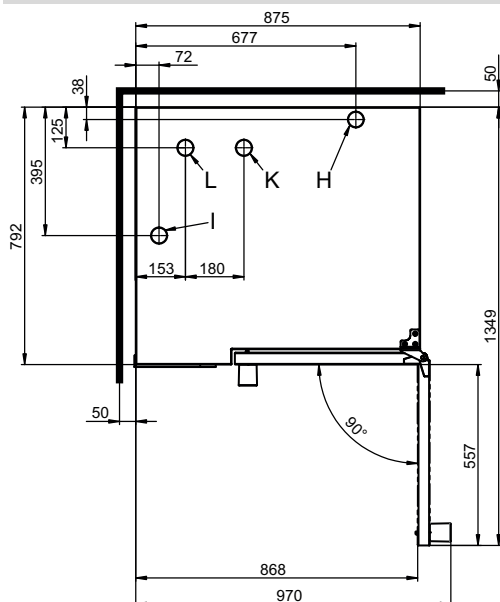


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

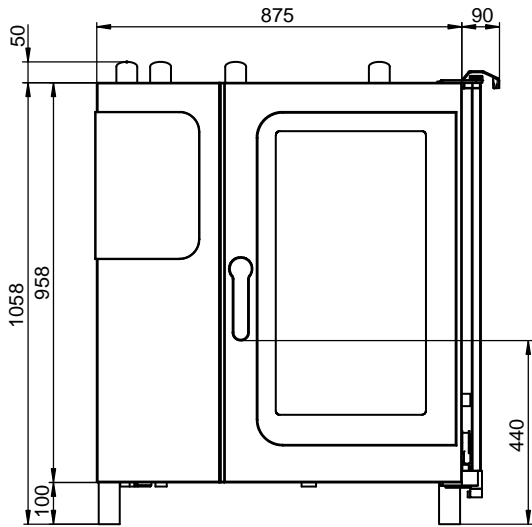


Meaning of labelled elements

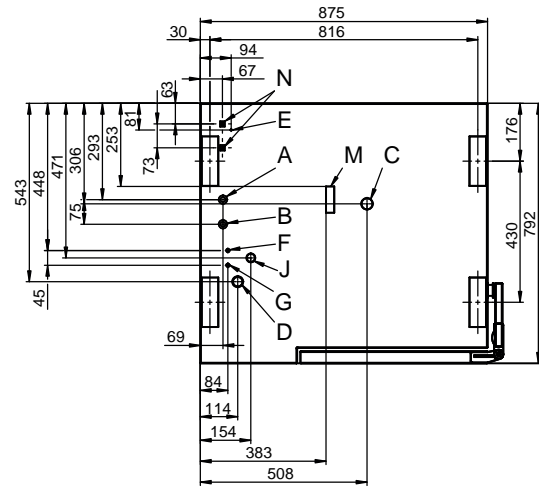
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 50 mm
- L Exhaust outlet for boiler burner \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.10 (disappearing door)

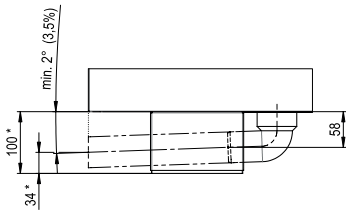
Front view



Connection points in appliance floor

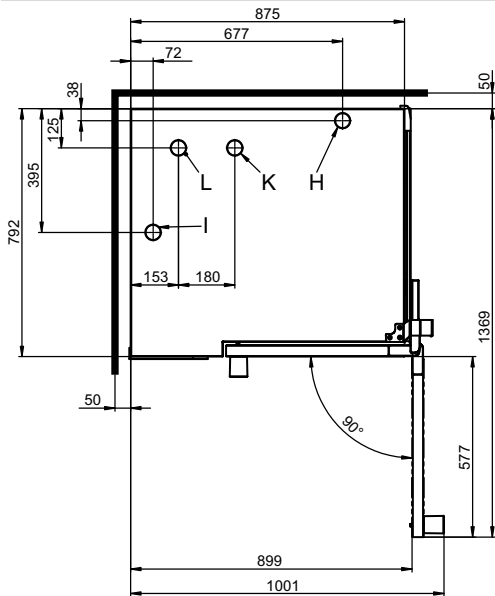


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



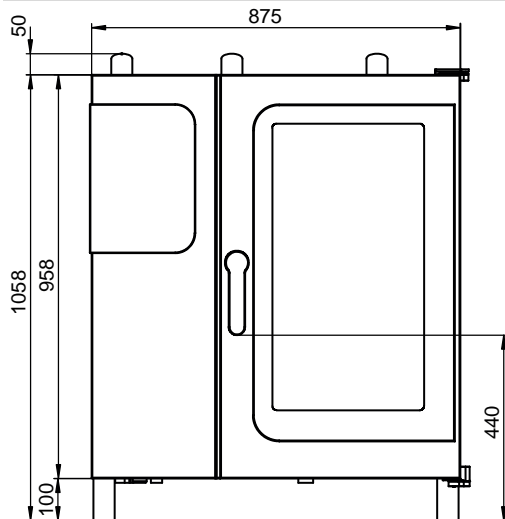
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 50 mm
- L Exhaust outlet for boiler burner \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

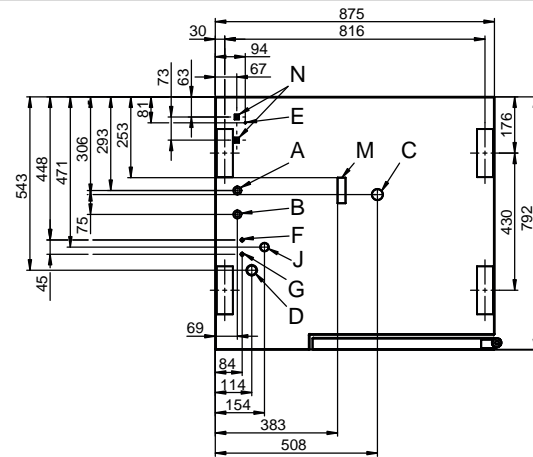
10.9 Convotherm 4 10.10 injection gas appliance

Dimensions and connection points for C4 10.10 (right-hinged appliance door)

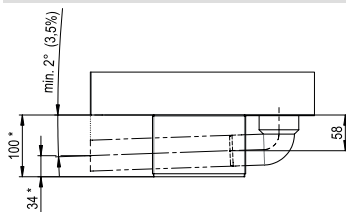
Front view



Connection points in appliance floor

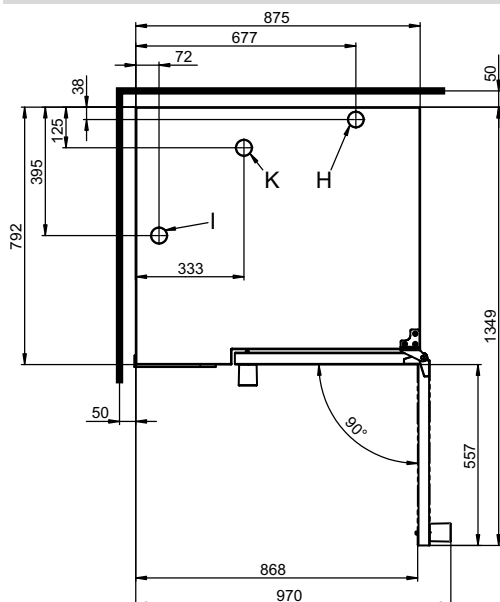


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

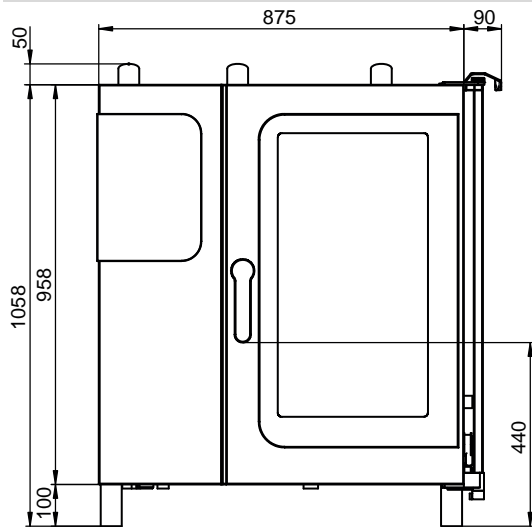


Meaning of labelled elements

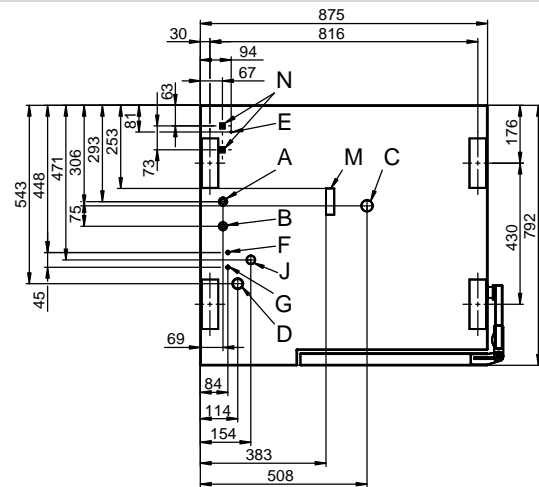
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.10 (disappearing door)

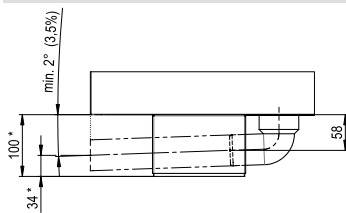
Front view



Connection points in appliance floor

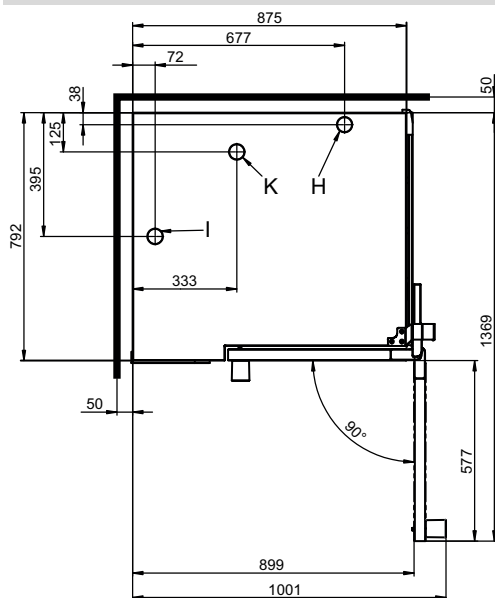


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

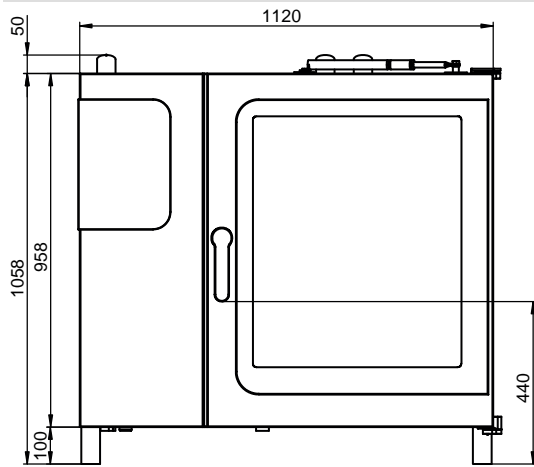


Meaning of labelled elements

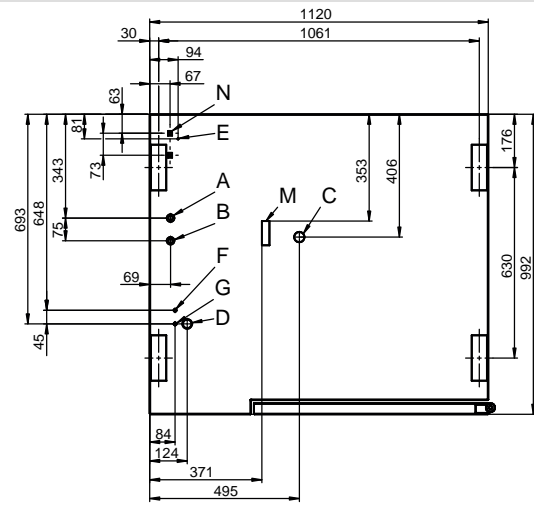
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- J Gas connection
- K Exhaust outlet Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.20 (right-hinged appliance door / Marine version)

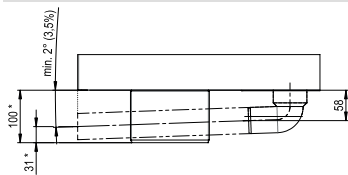
Front view



Connection points in appliance floor

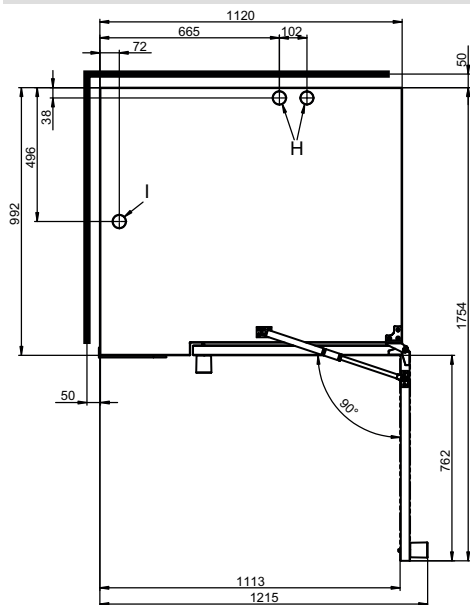


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

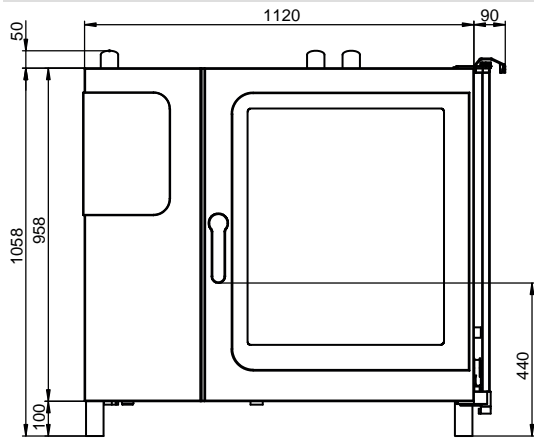


Meaning of labelled elements

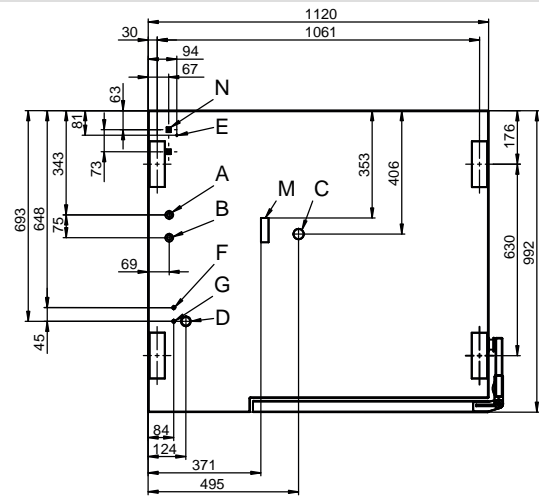
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.20 (disappearing door)

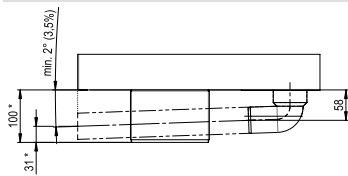
Front view



Connection points in appliance floor

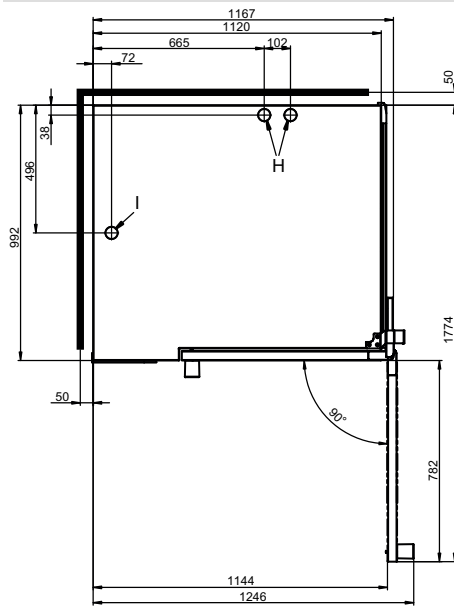


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

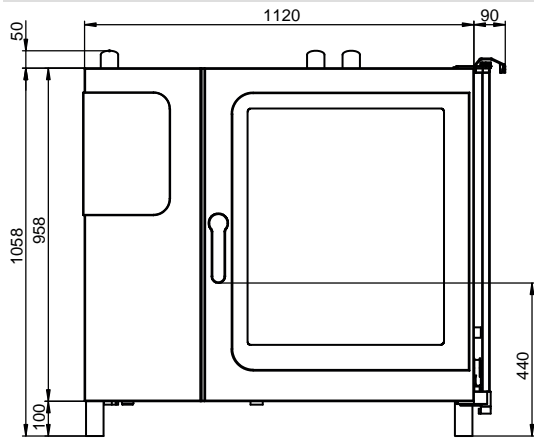


Meaning of labelled elements

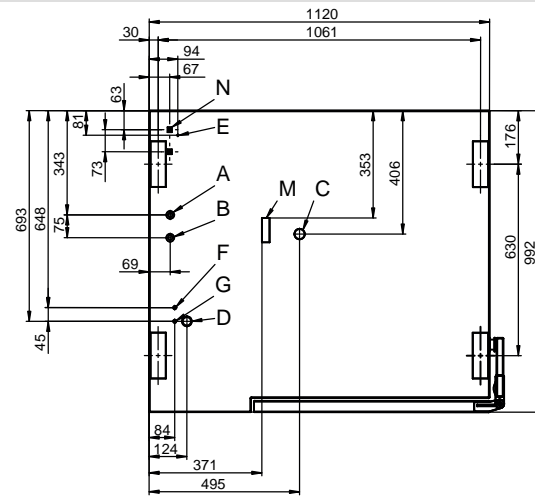
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.20 (disappearing door / Marine version)

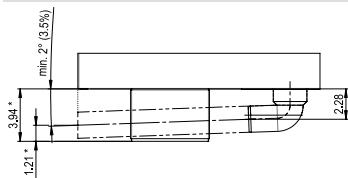
Front view



Connection points in appliance floor

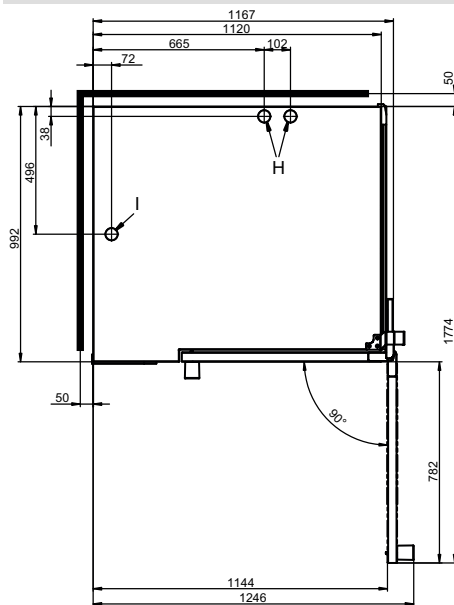


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



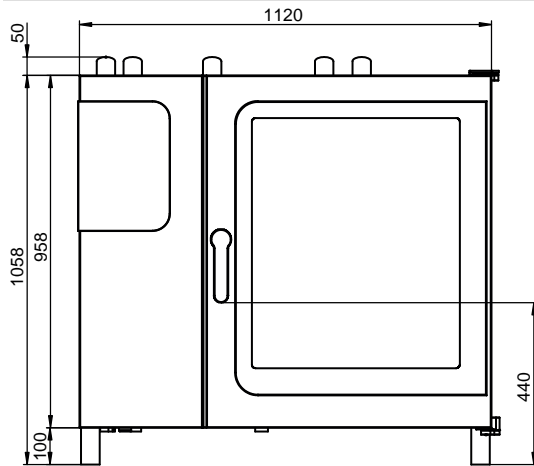
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent Ø 50 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

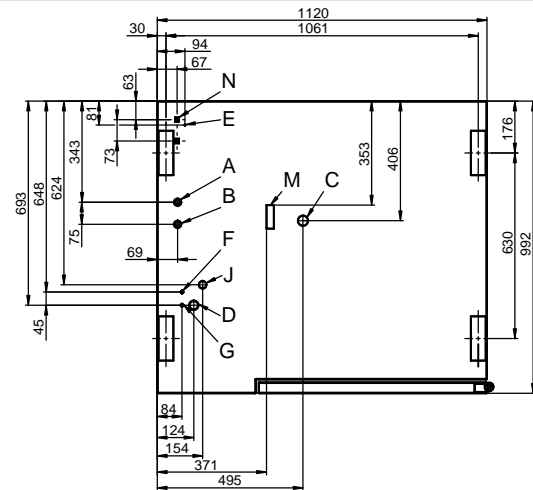
10.11 Convotherm 4 10.20 boiler gas appliance

Dimensions and connection points for C4 10.20 (right-hinged appliance door)

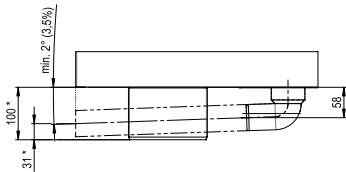
Front view



Connection points in appliance floor

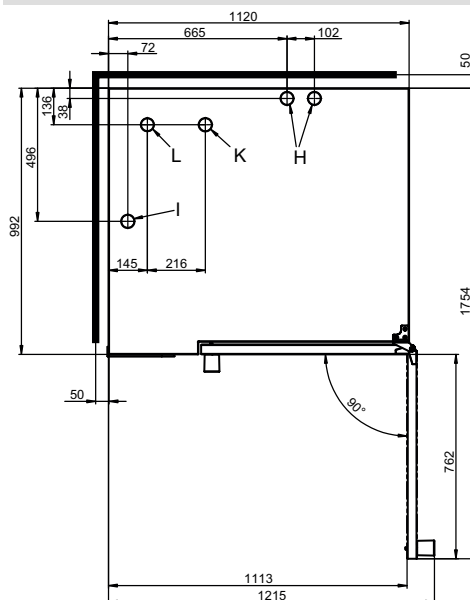


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

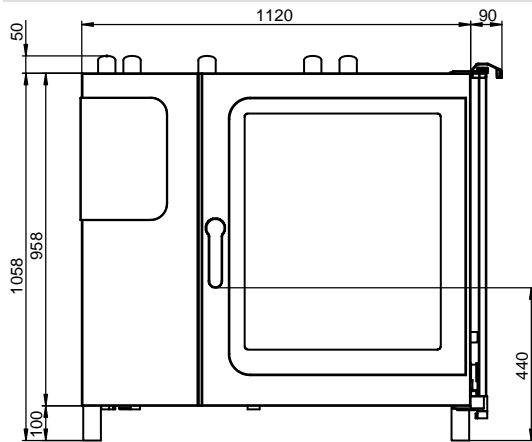


Meaning of labelled elements

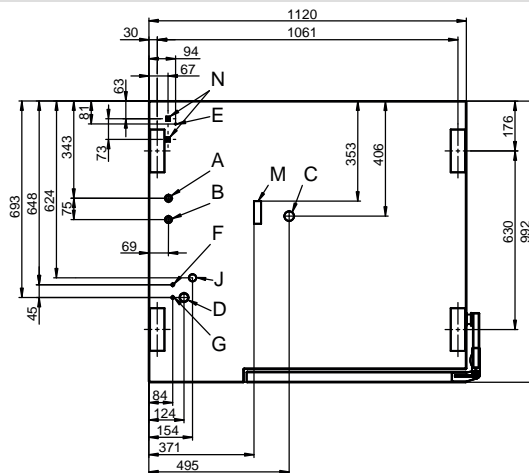
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 60.3 mm
- L Exhaust outlet for boiler burner \varnothing 60.3 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.20 (disappearing door)

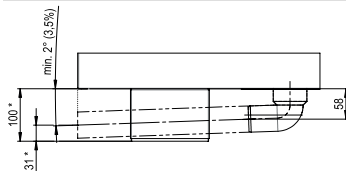
Front view



Connection points in appliance floor

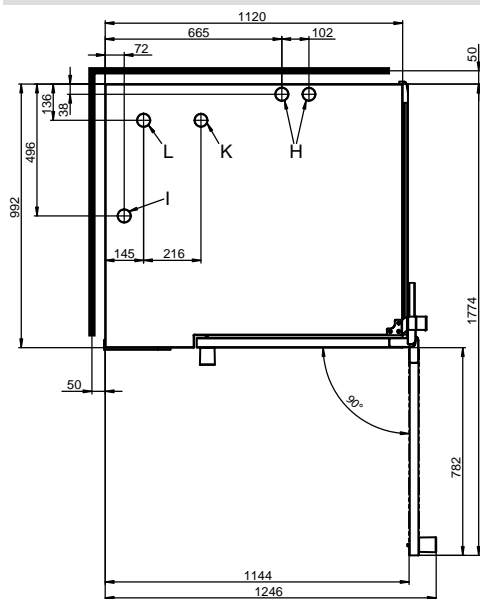


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



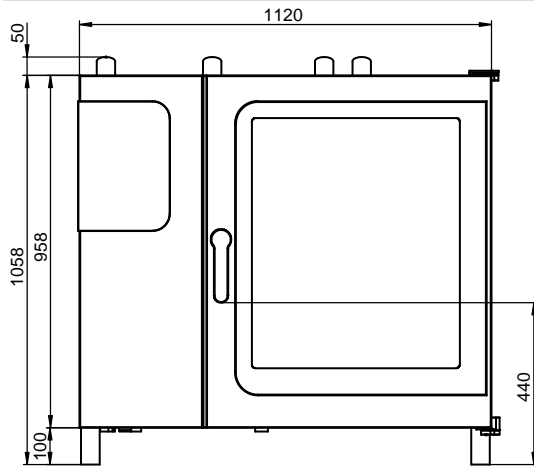
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet for convection burner \varnothing 60.3 mm
- L Exhaust outlet for boiler burner \varnothing 60.3 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

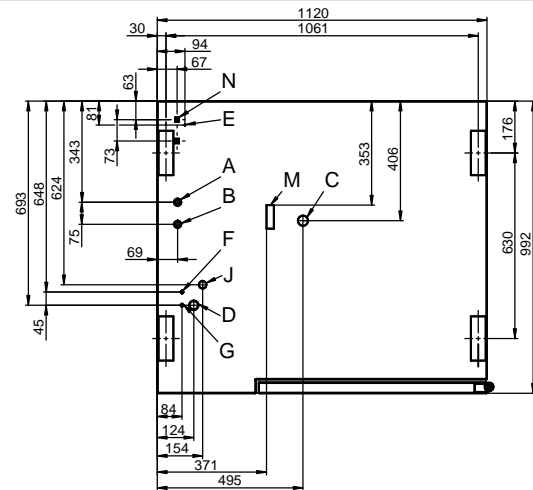
10.12 Convotherm 4 10.20 injection gas appliance

Dimensions and connection points for C4 10.20 (right-hinged appliance door)

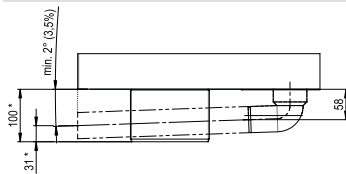
Front view



Connection points in appliance floor

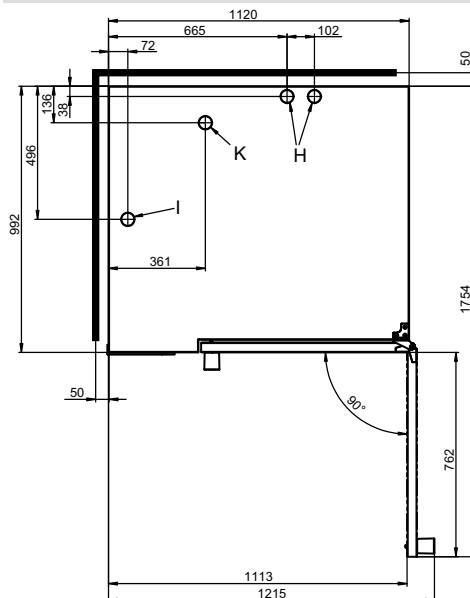


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances

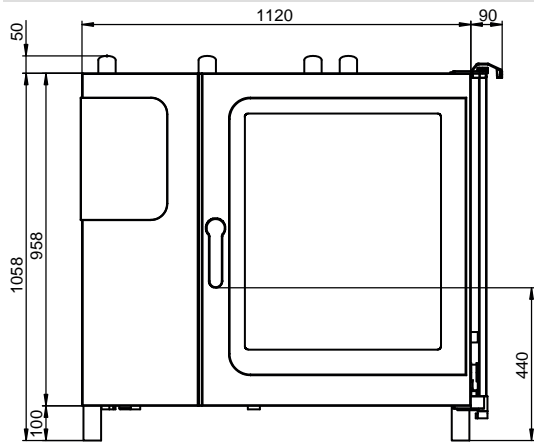


Meaning of labelled elements

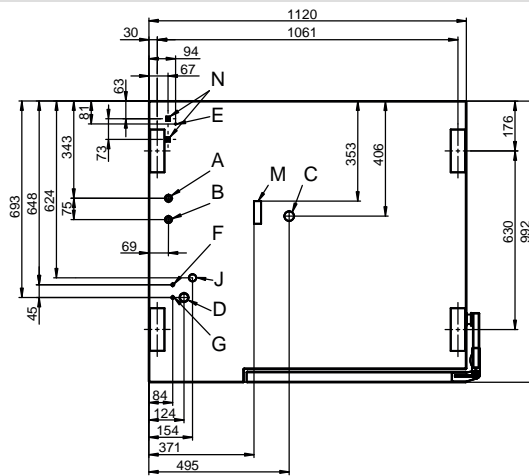
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent \varnothing 50 mm
- I Ventilation port \varnothing 50 mm
- J Gas connection
- K Exhaust outlet \varnothing 50 mm
- M Safety overflow 80 x 25 mm
- N RJ45 Ethernet port

Dimensions and connection points for C4 10.20 (disappearing door)

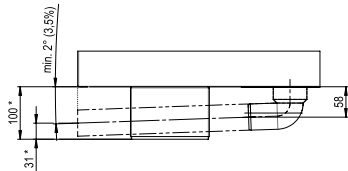
Front view



Connection points in appliance floor

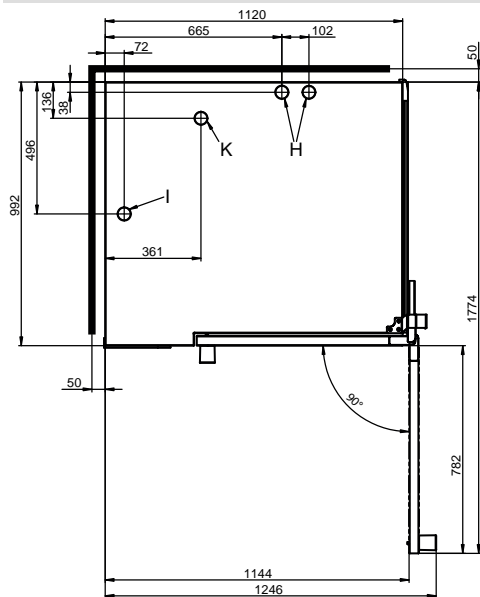


Detailed view of drain connection



* Distance depends on how far the appliance feet are extended (max. +25 mm)

View from above with wall clearances



Meaning of labelled elements

- A Water connection Soft water G 3/4"
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Combi oven
Convotherm maxx pro
C4 table-top units

Serial no.
Item no.
Order no.

Additional technical documentation can be found in the download center at :
www.convotherm.com



Welbilt offers fully-integrated kitchen systems and our products are backed by KitchenCare® aftermarket parts and service. Welbilt's portfolio of award-winning brands includes **Cleveland™, Convotherm®, Crem®, Delfield®, fit-kitchenSM, Frymaster®, Garland®, Kolpak®, Lincoln™, Manitowoc®, Merco®, Merrychef® and Multiplex®.**

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