Combi steamer

Read instructions before use

Convotherm 4

Installation manual CE - Original, ENG

Your meal. Our mission.

Table of Contents

1 General information

Purpose of this chapter

This chapter shows you how to identify your combi steamer and provides guidance on using this manual.

Contents

This chapter contains the following topics:

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 9001:2008 and ISO 14001:2004.

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.

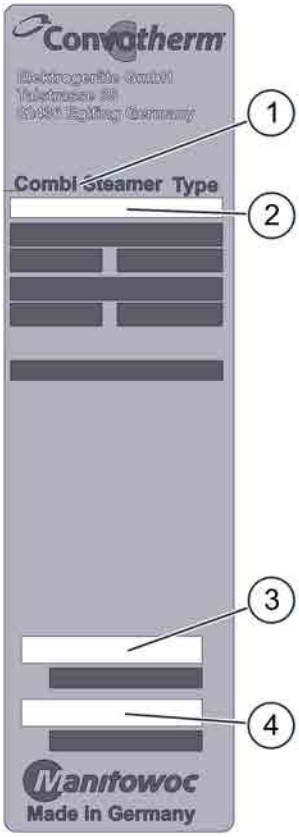
1.2 Identifying your combi steamer

Position of type plate

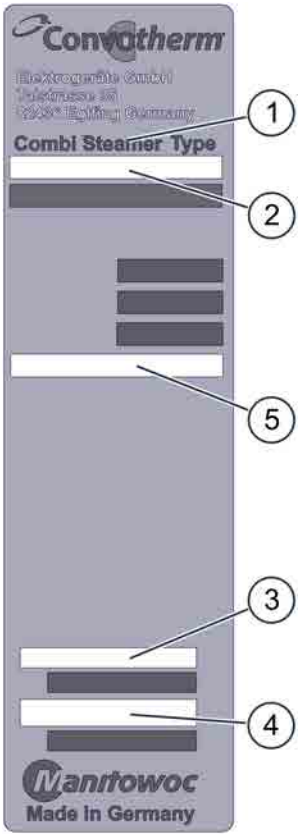
The type plate is located on the left-hand side of the combi steamer.

Layout and structure of the type plate

Electrical unit



Gas appliance



	Name	
1	**Name of appliance** Combi Steamer	
2	**Trade name**	
	Element	Meaning
	C4	Convotherm 4 appliance series
	eT	easyTouch controls
	eD	easyDial controls
	numbers xx.yy	Appliance size
	EB	Electrical unit with boiler
	ES	Electrical unit with water injection
	GB	Gas appliance with boiler
	GS	Gas appliance with water injection
3	**Part number**	
4	**Serial number**	
	Element	Meaning
	Heating method	▪ Electric appliance (X, V) ▪ Gas appliance (Y, W)
	Steam generation method	▪ Injection (S) ▪ Boiler (B)
	Appliance size	▪ 6.10 (1) ▪ 6.20 (2) ▪ 10.10 (3) ▪ 10.20 (4) ▪ 12.20 (5) ▪ 20.10 (6) ▪ 20.20 (7)
	Year of manufacture	▪ 2014 (14) ▪ 2015 (15) ▪ ...
	Month of manufacture	▪ January (01) ▪ February (02) ▪ March (03) ▪ ...

	Sequential number	4 digits
5	**Gas data**	BTU/hr, gas type

1.3 Structure of customer documentation

Contents of customer documentation

The customer documentation for the combi steamer includes the following documents:
- Installation manual (this document)
- User manual
- easyTouch operating instructions (extract from the on-screen Help)
- On-screen Help integrated in easyTouch (full instructions on how to use the software)
- easyDial operating instructions

Topics in the installation manual

The installation manual is intended for trained professional staff; see '*Requirements to be met by personnel* on page 41' in the installation manual.

It contains the following topics:
- **Design and function**: describes the components relevant to installing the combi steamer
- **Safety**: describes all the hazards and appropriate preventive measures relevant to installation tasks
- **Moving the appliance**: contains necessary information on moving the combi steamer
- **Setting up the appliance**: lists and describes the options for setting up the combi steamer
- **Installation**: describes all the supply connections that are needed
- **Preparing the appliance for first-time use**: describes how to prepare the combi steamer for use for the first time
- **Taking the appliance out of operation**: describes the tasks that need to be performed at the end of the combi-steamer life cycle
- **Technical data, dimensional drawings and connection points**: contains all the relevant technical data for the combi steamer
- **Checklists**: contains checklists for installing the combi steamer in compliance with the warranty

Topics in the user manual

The user manual is intended for trained staff and trained professional staff; see '*Requirements to be met by personnel* in the user manual.

It contains the following topics:
- **Design and function**: describes the components relevant to operating the combi steamer
- **Safety**: describes all the hazards and appropriate preventive measures relevant to operating the combi steamer
- **Cooking**: describes the rules, working procedures, operating steps and appliance usage instructions for cooking
- **Cleaning**: lists and describes cleaning processes, cleaning fluids, working procedures, operating steps and appliance usage instructions for cleaning
- **Servicing**: contains warranty information, the servicing schedule, information about faults, errors and emergency use, plus working procedures, operating steps and appliance usage instructions for servicing

Topics in the operating instructions and the on-screen help (easyTouch only)

The operating instructions and the on-screen help (easyTouch only) are intended for trained staff and trained professional staff; see '*Requirements to be met by personnel* in the user manual. For easyTouch models, the operating instructions are an extract from the on-screen help.

The Operating instructions and online help (easyTouch only) include the following topics:
- **Layout of the user interface**: explains the combi-steamer user interface
- **Using the software**: contains instructions for entering and opening cooking profiles, for opening cleaning profiles, for starting cooking and cleaning processes; describes how to make settings and how to import and export data
- **Selected cooking profiles**: lists tried and tested cooking profiles

1.4 Essential reading relating to safety

Safety information in the customer documentation

Safety information relating to the combi steamer 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 preparing the appliance for first-time use and taking the appliance out of operation.

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 steamer must have read and understood the following parts of this document before starting any work:

- the chapter '*For your safety* on page 21'
- the sections that describe the activity to be carried out

Danger symbol

Danger symbol	Meaning
	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 notices 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

1.5 About this installation manual

Purpose

This installation manual is intended for all people who work with the combi steamer, and provides them with the necessary information for proper and safe working when moving, setting up and installing the appliance and when preparing it for first-time use.

Who should read the installation manual

Name of target group	Tasks
Start-up engineer (Service engineer)	▪ Overall responsibility for preparing the combi steamer for first-time use ▪ Instructing the user
Owner of the combi steamer or Owner's member of staff who is responsible for the appliance	▪ Made aware of all safety-related functions and devices of the combi steamer 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.
Equipment mover	Conveying within the establishment
Service engineer	▪ Setting up the appliance ▪ Installing the fully automatic oven cleaning system ConvoClean / ConvoClean+ (optional) ▪ Preparing the appliance for first-time use and taking the appliance out of operation
Electrical fitter	▪ Connecting the appliance to the building's electrical supply ▪ Disconnecting the electrical supply
Plumber	▪ Connecting the appliance to the building's water supply ▪ Disconnecting the water supply ▪ Connecting the appliance to the building's wastewater system ▪ Disconnecting the wastewater system
Gas fitter	Installing and removing the gas connection

Chapters in the installation manual

Chapter/section	Purpose
General information	▪ Shows you how to identify your appliance ▪ Provides guidance on using this installation manual
Design and function	▪ Specifies the intended use of the appliance ▪ Explains the functions of the appliance and shows the position of its components
For your safety	Describes the hazards posed by the appliance and suitable preventive measures **It is important that you read this chapter carefully.**
Moving the appliance	▪ Specifies the basic appliance dimensions ▪ Specifies the requirements for the installation location ▪ Explains how to convey the appliance to the installation location
Setting up the appliance	▪ Explains how to unpack the appliance and specifies the parts supplied with the appliance ▪ Explains how to set up the appliance

Chapter/section	Purpose
Installation	Provides information on installing the: ▪ Electrical supply ▪ Gas ▪ Water and waste water ▪ Exhaust gas and vented air ▪ ConvoClean+ / ConvoClean fully automatic oven cleaning system
Preparing the appliance for use	Explains the procedure for preparing the appliance for first-time use
Taking the appliance out of operation and disposal	▪ Explains the procedure for taking the appliance out of use ▪ Contains information about disposal
Technical data	Contains the technical data
Dimensional drawings and connection diagrams	Contains the dimensional drawings and connection plans.
Checklists and completion of installation	▪ Contains the checklists for ▪ Installation ▪ Safety devices and warnings ▪ Customer guidance and instruction ▪ Contains information on the warranty and explains the completion procedure using the checklists

Notation for decimal points

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

2 Design and function

Purpose of this chapter

This chapter describes the design and construction of the combi steamer and explains its functions.

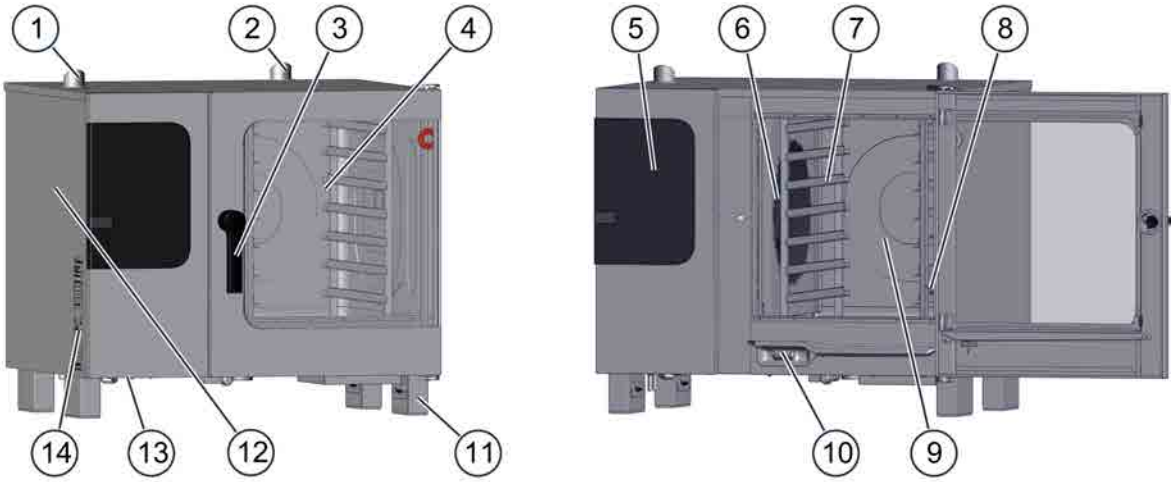
Contents

This chapter contains the following topics:

2.1 Design and function of the combi steamer

Components and function (electrical table-top units)

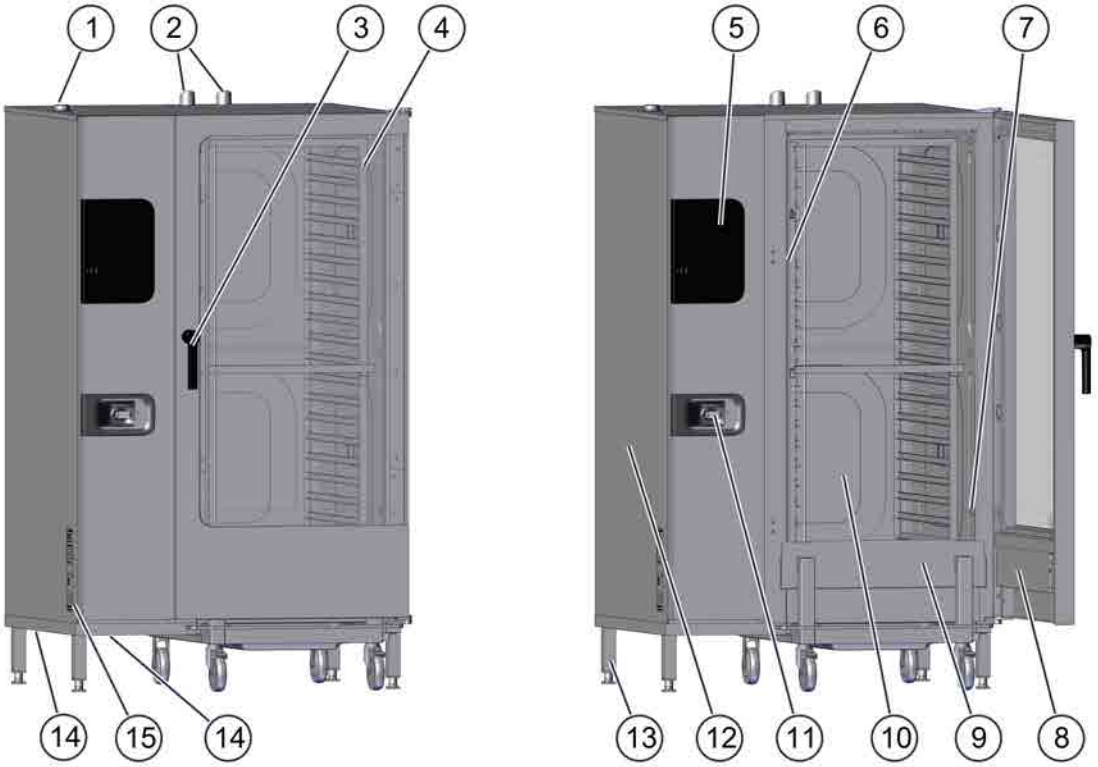
The following illustration shows a size 6.10 combi steamer as an example of all electric table-top models:



Item	Name	Function
1	Ventilation port	▪ External air intake for removing the moisture from the cooking chamber ▪ Smoothes out any pressure fluctuations in the cooking chamber
2	Air vent	Allows hot vapour to escape
3	Door handle	▪ Opens and closes the appliance door ▪ Venting position for opening the appliance safely (“safety catch”) ▪ Sure-shut function ▪ Antibacterial material containing silver ions ("HygienicCare")
4	Appliance door	▪ Closes the cooking chamber ▪ Can slide back beside the appliance when opened in order to save space (optional “disappearing door”)
5	Operating panel	▪ Used for operating the appliance ▪ Antibacterial ("HygienicCare")
6	Suction panel	Distributes the heat evenly inside the cooking chamber
7	Rack	Holds standard-sized food containers
8	Core temperature probe, sous-vide sensor (with external socket)	Measures the core temperature of the food being cooked
9	Cooking chamber	Contains the food during cooking
10	Recoil hand shower	▪ Intended solely for rinsing out the cooking chamber with water ▪ Retracts automatically into the holder after use ▪ Antibacterial ("HygienicCare")
11	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
12	Side panel	Covers the appliance wiring compartment
13	Ventilation slots underneath the appliance	▪ Used for appliance ventilation ▪ Must not be covered
14	Type plate	Identifies the appliance

Components and function (electric floor-standing appliances)

The figure below shows a size 20.20 combi steamer as an example of all electric floor-standing appliances:

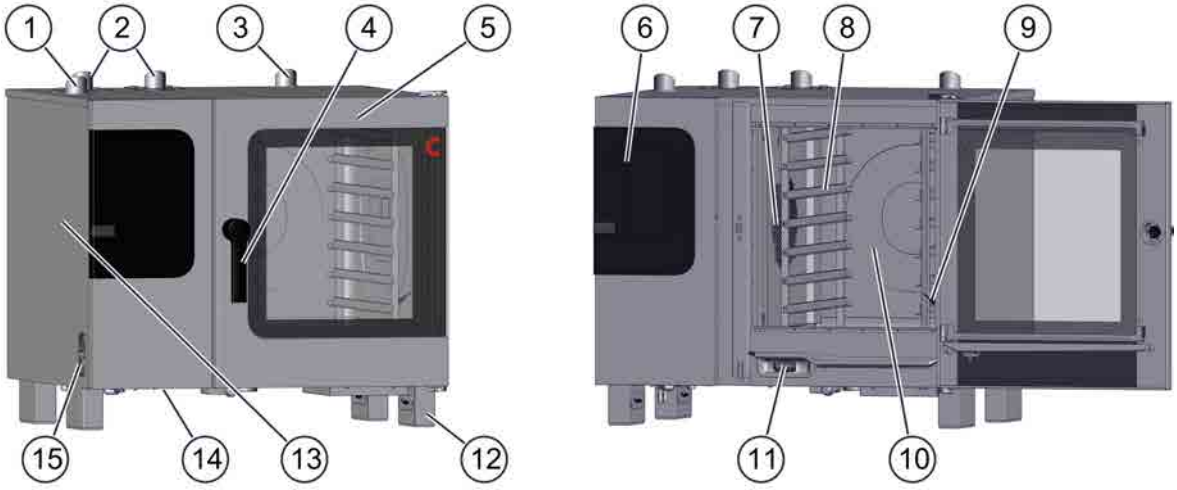


Item	Name	Function
1	Ventilation port	▪ External air intake for removing the moisture from the cooking chamber ▪ Smoothes out any pressure fluctuations in the cooking chamber
2	Air vent	Allows hot vapour to escape
3	Door handle	▪ Opens and closes the appliance door ▪ On-latch position for opening the appliance safely ▪ Antibacterial material containing silver ions ("HygienicCare")
4	Appliance door	▪ Closes the cooking chamber ▪ Can slide back beside the appliance when opened in order to save space (optional “disappearing door”)
5	Operating panel	▪ Used for operating the appliance ▪ Antibacterial ("HygienicCare")
6	Suction panel	Distributes the heat evenly inside the cooking chamber
7	Core temperature probe, sous-vide sensor (with external socket)	Measures the core temperature of the food being cooked
8	Built-in preheat bridge in appliance door	Used for safety purposes during preheating and reduces energy wastage
9	Loading trolley	Holds standard-sized food containers
10	Cooking chamber	Contains the food during cooking
11	Recoil hand shower	▪ Intended solely for rinsing out the cooking chamber with water ▪ Retracts automatically into the holder after use ▪ Antibacterial ("HygienicCare")

Item	Name	Function
12	Side panel	Covers the appliance wiring compartment
13	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
14	Ventilation slots underneath the appliance	▪ Used for appliance ventilation ▪ Must not be covered
15	Type plate	Identifies the appliance

Components and function (gas table-top units)

The following illustration shows a size 6.10 combi steamer as an example of all gas table-top models:

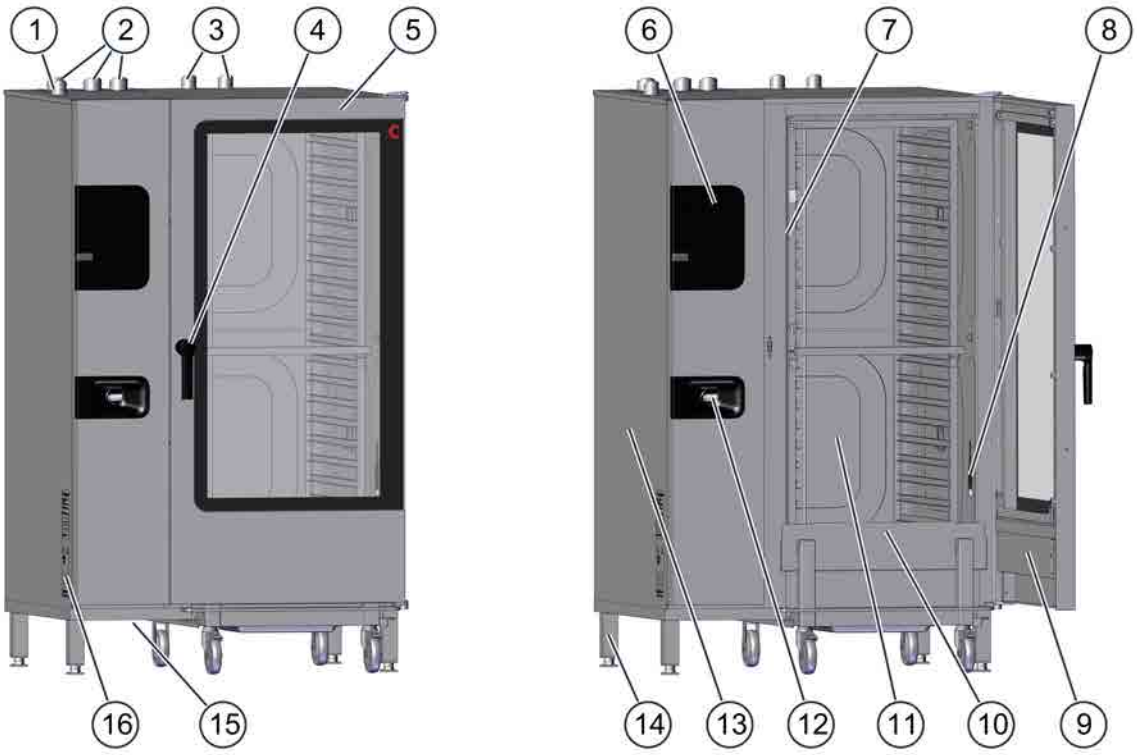


Item	Name	Function
1	Ventilation port	▪ External air intake for removing the moisture from the cooking chamber ▪ Smoothes out any pressure fluctuations in the cooking chamber
2	Exhaust outlet	Takes away hot exhaust gases
3	Air vent	Allows hot vapour to escape
4	Door handle	▪ Opens and closes the appliance door ▪ Venting position for opening the appliance safely (“safety catch”) ▪ Sure-shut function ▪ Antibacterial material containing silver ions ("HygienicCare")
5	Appliance door	▪ Closes the cooking chamber ▪ Can slide back beside the appliance when opened in order to save space (optional “disappearing door”)
6	Operating panel	▪ Used for operating the appliance ▪ Antibacterial ("HygienicCare")
7	Suction panel	Distributes the heat evenly inside the cooking chamber
8	Rack	Holds standard-sized food containers
9	Core temperature probe, sous-vide sensor (with external socket)	Measures the core temperature of the food being cooked
10	Cooking chamber	Contains the food during cooking

Item	Name	Function
11	Recoil hand shower	▪ Intended solely for rinsing out the cooking chamber with water ▪ Retracts automatically into the holder after use ▪ Antibacterial ("HygienicCare")
12	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
13	Side panel	Covers the appliance wiring compartment
14	Ventilation slots underneath the appliance	▪ Used for appliance ventilation ▪ Must not be covered
15	Type plate	Identifies the appliance

Components and function (gas floor-standing units)

The following illustration shows a size 20.20 combi steamer as an example of all gas floor-standing models:



Item	Name	Function
1	Ventilation port	▪ External air intake for removing the moisture from the cooking chamber ▪ Smoothes 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	▪ Opens and closes the appliance door ▪ On-latch position for opening the appliance safely ▪ Antibacterial material containing silver ions ("HygienicCare")
5	Appliance door	▪ Closes the cooking chamber ▪ Can slide back beside the appliance when opened in order to save space (optional “disappearing door”)

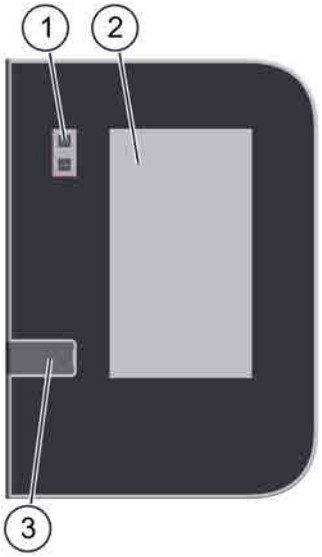
Item	Name	Function
6	Operating panel	▪ Used for operating the appliance ▪ Antibacterial ("HygienicCare")
7	Suction panel	Distributes the heat evenly inside the cooking chamber
8	Core temperature probe, sous-vide sensor (with external socket)	Measures the core temperature of the food being cooked
9	Built-in preheat bridge in appliance door	Used for safety purposes during preheating and reduces energy wastage
10	Loading trolley	Holds standard-sized food containers
11	Cooking chamber	Contains the food during cooking
12	Recoil hand shower	▪ Intended solely for rinsing out the cooking chamber with water ▪ Retracts automatically into the holder after use ▪ Antibacterial ("HygienicCare")
13	Side panel	Covers the appliance wiring compartment
14	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
15	Ventilation slots underneath the appliance	▪ Used for appliance ventilation ▪ Must not be covered
16	Type plate	Identifies the appliance

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	ON/OFF appliance switch	Switches the combi steamer on and off
2	Full touchscreen display	Central controls for appliance ▪ Appliance operated by touching icons on the control panel (full touchscreen display) ▪ Status displays
3	USB port	For connecting a USB stick

Layout and elements of the easyDial control panel

Item	Name	Function
1	ON/OFF appliance switch	Switches the combi steamer on and off
2	Control panel	Central controls for appliance ▪ 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 steamer safely without putting yourself or others at risk.

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

Contents

This chapter contains the following topics:

3.1 Basic safety code

Object of this safety code

This safety code aims to ensure that all persons who use the combi steamer 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 steamer. 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 steamer 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.

Working with the combi steamer

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

More on this ...

Related topics

▷ Intended use of your combi steamer 23
▷ Warning signs on the combi steamer for table-top units 24
▷ Warning signs on the combi steamer for floor-standing units 26
▷ Hazards and safety precautions when moving the appliance 28
▷ Hazards and safety precautions when setting up the appliance 29
▷ Hazards and safety precautions during installing 30
▷ Hazards and safety precautions when preparing appliance for use 32
▷ Hazards and safety precautions when taking the appliance out of operation 35
▷ Safety devices 38
▷ Requirements to be met by personnel, working positions 41
▷ Personal protective equipment 43

3.2 Intended use of your combi steamer

Intended use

- The combi steamer is designed and built solely for cooking different foodstuffs in standard-sized food containers (e.g. Gastronorm containers, standard baking sheets). 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 steamer is intended solely for professional, commercial use.

Restrictions on use

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

- **No** dry powder or granulated material
- **No** highly flammable objects with a flash point below 270°C, such as highly flammable oils, fats, plastics
- **No** food in sealed tins or jars

Requirements to be met by personnel

- The combi steamer 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 41' 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 steamer

- The combi steamer 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 operation and servicing of the combi steamer must be observed.
- The combi steamer must not be loaded over the maximum permissible loading weight for the given model or shelf allowance; see '*Technical Data* on page 111'.

Requirements relating to the operating environment of the combi steamer

Specified operating environment for the combi steamer

- 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.
- High-pressure cleaners must not be used for cleaning.
- Water jets must not be used for cleaning the exterior. The water jet from the recoil hand shower must only be used for cleaning the cooking chamber.
- The combi steamer must not be treated with acids or exposed to acid fumes, except for the purpose of descaling the cooking chamber and the boiler by an authorized service company in accordance with the manufacturer's instructions.

3.3 Warning signs on the combi steamer for table-top units

Fixed supporting structure

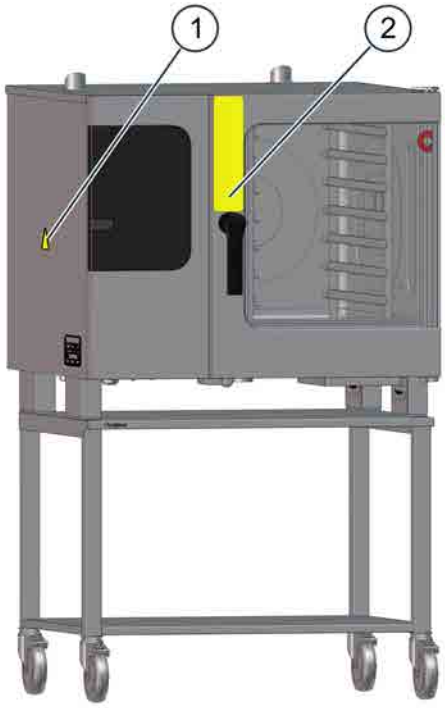
A fixed supporting structure for the combi steamer is a permanently fixed worktable or stand. These supporting structures are not intended to be mobile and so are not equipped with features that would help to move them.

Mobile supporting structure

A mobile supporting structure for the combi steamer is, for example, a wheeled worktable or a stand or stacking kit on castors.

Positioning of warning notices

The following illustration shows a size 6.10 electric combi steamer on a mobile platform as an example of all table-top models:



Transport trolley (optional)

Obligatory warning signs

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

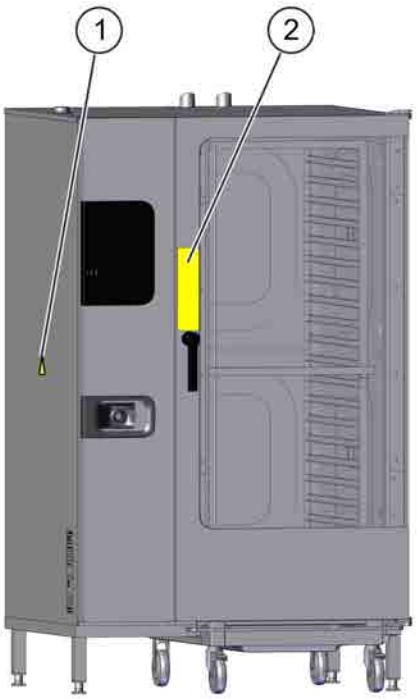
Area	Warning sign	Description
1		Warning of dangerous electric voltage / electric shock There is a risk of electric shock from live parts if the safety cover is opened.
2		Warning of hot steam and vapour There is a risk of scalding from hot steam and vapour escaping when the appliance door is opened.

Area	Warning sign	Description
2 and 3		Warning of hot liquids Spillage of hot liquid foods can result in scalds if the upper shelves are loaded with liquids or foods that produce liquid during cooking. Shelves that lie above the sightline of the user must not be used for liquid foodstuffs or food that will liquefy during cooking.
2 only for a mobile platform		Tipping or toppling warning for combi steamer There is a risk of the combi steamer toppling over if moved. Always take great care when moving the combi steamer.
3		Tipping or toppling warning for transport trolley There is a risk of the transport trolley toppling over if moved. Always take great care when moving the transport trolley. When moving the transport trolley, watch out for objects in the way or unevenness in the floor.
2 only for a mobile platform		Damage or detachment warning for appliance connections There is a risk of the appliance connections being damaged or detached if the combi steamer is moved. Always ensure there is enough length in the supply cables and pipes when moving the combi steamer. After moving, always secure the combi steamer against rolling away.

3.4 Warning signs on the combi steamer for floor-standing units

Positioning of warning notices

The following illustration shows a size 20.20 electric combi steamer as an example of all floor-standing models:



Loading trolley

Plate loading trolley (optional)

Obligatory warning signs

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

Area	Warning sign	Description
1		Warning of dangerous electric voltage / electric shock There is a risk of electric shock from live parts if the safety cover is opened.
2		Warning of hot steam and vapour There is a risk of scalding from hot steam and vapour escaping when the appliance door is opened.

Area	Warning sign	Description
2 and 3		Warning of hot liquids Spillage of hot liquid foods can result in scalds if the upper shelves are loaded with liquids or foods that produce liquid during cooking. Shelves that lie above the sightline of the user must not be used for liquid foodstuffs or food that will liquefy during cooking.
3		Tipping or toppling warning for loading trolley or plate loading trolley There is a risk of the loading trolley or plate loading trolley toppling over if moved. Always take great care when moving the loading trolley or plate loading trolley. When moving the loading trolley or plate loading trolley, watch out for objects in the way or unevenness in the floor.

3.5 Hazards and safety precautions when moving the appliance

Safety hazard: moving heavy weights

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of injury from overstressing your body	When moving the appliance onto and off the moving equipment	▪ Use a forklift truck or pallet truck ▪ Do not exceed safety limits for lifting and carrying ▪ Wear personal protective equipment

Safety hazard: mechanical parts of the appliance

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of body parts being crushed if the appliance is dropped	When moving the appliance	▪ Use suitable handling gear ▪ Move the appliance slowly and carefully, and secure it against tipping over ▪ Make sure center of gravity is balanced ▪ Avoid jolts
Risk of body parts being crushed if the appliance tips over or falls off	When placing the appliance down on the supporting surface	Always observe the requirements for the supporting surface while setting up the appliance; see '*Requirements for the installation location* on page 50'

3.6 Hazards and safety precautions when setting up the appliance

Safety hazard: moving heavy weights

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of injury from overstressing your body	When moving the appliance	▪ 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 ▪ Observe the local occupational safety regulations ▪ Wear personal protective equipment

Safety hazard: mechanical parts of the appliance

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of body parts being crushed if the appliance tips over	When the appliance is being moved off the pallet	▪ Before sliding the appliance off the pallet, make sure that the slides are screwed firmly to the pallet. ▪ Take care not to let an appliance foot slip off the side of the slide. ▪ Be careful when transferring the appliance from the slide onto the non-slip floor.
Risk of body parts being crushed if the appliance is dropped	When lifting the appliance	▪ Make sure center of gravity is balanced ▪ Avoid jolts
Risk of body parts being crushed if the appliance tips over or falls off	When installing the appliance on the floor	Always observe the requirements for the supporting surface while setting up the appliance; see '*Requirements for the installation location* on page 50'
Risk of cuts from sharp edges	When handling sheet-metal parts	▪ Exercise caution when performing these tasks ▪ Wear personal protective equipment

3.7 Hazards and safety precautions during installing

Safety hazard: electrical power

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of electric shock from live parts	▪ Under covers ▪ Under the control panel ▪ Along the mains power lead	▪ Work on the electrical system must only be performed by qualified electricians from an authorized service company ▪ Professional working
		Before removing the covers: ▪ 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. ▪ Make sure that the appliance is de-energized
		Ensure that all electrical connections are in perfect condition and fixed securely before putting the appliance into use
	▪ On the appliance and on adjacent metal parts ▪ On the appliance and on adjacent metallic accessories	Before preparing the appliance for use, make sure that the appliance, including all metallic accessories, is connected to an equipotential bonding system.
Risk of electric shock from incorrect water connection	In the entire work area, as soon as the water pipe bursts or starts leaking	▪ Use a permanent connection ▪ Make sure that the water pressure of the water supply is compatible with the pressure specified on the appliance ▪ Use suitable pipes that comply with EN 61770

Safety hazard: gas

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of explosion from gas	▪ If gas pipes are leaking ▪ If the gas tap is opened before the gas has been connected fully ▪ If the appliance is moved	Install gas shutoff device close to appliance
		For table-top units on a wheeled platform and with a flexible connection pipe: ▪ In order to secure the appliance in place, make sure that the retaining device which restricts the range of movement of the platform plus appliance is connected.
		Never move appliance during use
		Connection of the gas supply must be entrusted solely to qualified gas engineers from an authorized installation company

Safety hazard: mechanical parts of the appliance

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of cuts from sharp edges	When handling sheet-metal parts	▪ Exercise caution when performing these tasks ▪ Wear personal protective equipment

Safety hazard: cleaning agent

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of chemical burns or irritation to skin, eyes and respiratory system from contact with cleaning agents and their fumes	When fitting the cleaning system	▪ Wear personal protective equipment ▪ Observe the labels on the cleaning fluids and the relevant safety datasheets
	When corrosive cleaning agents are used	Only use those cleaning fluids that are specified under *Cleaning fluids* in the 'Cleaning procedures' chapter of the user manual

3.8 Hazards and safety precautions when preparing appliance for use

Safety hazard: electrical power

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of electric shock from live parts	▪ Under covers ▪ Under the control panel ▪ Along the mains power lead	▪ Work on the electrical system must only be performed by qualified electricians from an authorized service company ▪ Professional working
		Before removing the covers: ▪ 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. ▪ Make sure that the appliance is de-energized
		Ensure that all electrical connections are in perfect condition and fixed securely before putting the appliance into use
	▪ On the appliance and on adjacent metal parts ▪ On the appliance and on adjacent metallic accessories	Before preparing the appliance for use, make sure that the appliance, including all metallic accessories, is connected to an equipotential bonding system.

Safety hazard: gas

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of explosion from gas	If the appliance is moved	Never move appliance during use
		For table-top units on a wheeled platform and with a flexible connection pipe: ▪ Only move the appliance forward for the purpose of cleaning the case or cleaning the floor under the appliance. Do not move the appliance forward by more than the allowed range of movement. The range of movement is set by the retaining device used to secure the appliance in place (typically 0.5 m). ▪ Before operating the appliance, always engage the parking brake on the wheels ▪ Check that wheel brakes are on before operation each day
Risk of suffocation from lack of air	Where appliance is installed	▪ Check the exhaust gas levels and if necessary get an authorized installation 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 installation engineer are met ▪ Do not obstruct lower area of equipment ▪ Only operate appliance in a draught-free environment

Safety hazard: mechanical parts of the appliance

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of injuries from rotating fan	If the cooking chamber is being cooled using 'cool down' with the appliance door open and the fan wheel is exposed because the suction panel is not fitted	Make sure that the suction panel is fitted and secured in place

Safety hazard: moving appliances supported on a wheeled base

Danger	Where or in what situations does the hazard arise?	Preventive action
All specified hazards	While appliances are being moved on a wheeled platform	▪ Before moving appliances with a fixed wastewater connection, disconnect the drain pipe ▪ Before moving (for instance to clean the case of the combi steamers or to clean the floor), check whether the retaining device which restricts the radius of movement of the platform plus appliance is connected. ▪ When moving the appliance, take care not to wheel over the electrical supply cables or the gas and water pipes
Risk of crushing of body parts	While appliances are being moved on a wheeled platform	▪ Watch out for the connecting cables and pipes ▪ Use at least two people to move it
Risk of hands and feet being pinched	While appliances are being moved on a wheeled platform	Keep the appliance doors closed
Risk of scalding from hot waste water	While appliances are being moved on a wheeled platform	▪ Let the appliance cool down ▪ Wipe up immediately any water spillages ▪ Wear protective clothing
Risk of scalding from hot liquid food	While appliances are being moved on a wheeled platform	Always remove any food from the appliances before moving them
Risk of electric shock from live parts	While appliances are being moved on a wheeled platform	Watch out for connected electrical cables and water pipes
Risk of explosion from gas	While appliances are being moved on a wheeled platform	Watch out for the gas supply pipe
Risk of skin and eye irritation from contact with cleaning agents	While appliances are being moved on a wheeled platform	▪ Make sure that the connecting lines and pipes are long enough ▪ Keep cleaning-agent canisters closed when moving the base
Risk of tripping from exposed cables and pipes	While cleaning behind appliances when pulled forward	Exercise caution when performing this action
Risk of falling on wet floor caused by waste water	▪ While cleaning behind appliances when pulled forward ▪ In front of the appliances	▪ Wipe up immediately any water spillages ▪ Make sure that the connecting lines and pipes are long enough
Risk of falling on wet floor caused by cleaning agents	▪ While cleaning behind appliances when pulled forward ▪ In front of the appliances	Keep the cleaning-agent canisters closed when moving appliances

Additional safety hazards when preparing appliance for use

When preparing the appliance for use, read and follow the safety information given in this chapter and also the following sections in the chapter 'For your safety' in the user manual:

- 'Hazards and safety precautions during operation'
- 'Hazards and safety precautions during cleaning'

3.9 Hazards and safety precautions when taking the appliance out of operation

Safety hazard: electrical power

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of electric shock from live parts	▪ Under covers ▪ Under the control panel	▪ Work on the electrical system must only be performed by qualified electricians from an authorized customer service company ▪ Professional working
		Before removing the covers: ▪ 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 ▪ Make sure that the appliance is de-energized

Safety hazard: gas

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of explosion from gas	If the gas supply has not been disconnected before starting work on the gas installation	Always disconnect the gas supply before starting work on the gas installation
		Any work on the gas installation must be entrusted solely to qualified gas engineers from an authorized installation company

Safety hazard: moving heavy weights

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of injury from overstressing your body	When moving the appliance onto and off the moving equipment	▪ Use a forklift truck or pallet truck ▪ Do not exceed safety limits for lifting and carrying ▪ Wear personal protective equipment

Safety hazard: moving appliances supported on a wheeled base

Danger	Where or in what situations does the hazard arise?	Preventive action
All specified hazards	While appliances are being moved on a wheeled platform	▪ Before moving appliances with a fixed wastewater connection, disconnect the drain pipe ▪ Before moving (for instance to access the back of the appliance), check that the retaining device is connected The retaining device restricts the range of movement of the platform supporting the appliance. The lengths of the electrical supply cables and gas and water pipes are chosen to accommodate the range of movement of the retaining device. ▪ When moving the appliance, take care not to wheel over the electrical supply cables or the gas and water pipes
Risk of crushing of body parts	While appliances are being moved on a wheeled platform	▪ Watch out for the connecting cables and pipes ▪ Use at least two people to move it
Risk of hands and feet being pinched	While appliances are being moved on a wheeled platform	Keep the appliance doors closed
Risk of scalding from hot waste water	While appliances are being moved on a wheeled platform	▪ Let the appliance cool down ▪ Wipe up immediately any water spillages ▪ Wear personal protective equipment
Risk of scalding from hot liquid food	While appliances are being moved on a wheeled platform	Always remove any food from the appliances before moving them
Risk of electric shock from live parts	While appliances are being moved on a wheeled platform	Watch out for connected electrical cables and water pipes
Risk of explosion from gas	While appliances are being moved on a wheeled platform	Watch out for the gas supply pipe
Risk of skin and eye irritation from contact with cleaning agents	While appliances are being moved on a wheeled platform	▪ Make sure that the connecting lines and pipes are long enough ▪ Keep cleaning-agent canisters closed when moving the base
Risk of tripping from exposed cables and pipes	While cleaning behind appliances when pulled forward	Exercise caution when performing this action
Risk of falling on wet floor caused by waste water	▪ While cleaning behind appliances when pulled forward ▪ In front of the appliances	▪ Wipe up immediately any water spillages ▪ Make sure that the connecting lines and pipes are long enough
Risk of falling on wet floor caused by cleaning fluids	▪ While cleaning behind appliances when pulled forward ▪ In front of the appliances	Keep the cleaning-agent canisters closed when moving appliances

Safety hazard: mechanical parts of the appliance

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of body parts being crushed if the appliance tips over or falls off	When the appliance is being moved e.g. to gain better access to the connections	Always observe the requirements for the supporting surface when taking the appliance out of service; see '*Requirements for the installation site* on page 50'
Risk of slipping on damp kitchen floor	In front of the appliance	Ensure that the floor around the appliance is dry at all times

Safety hazard: cleaning agent

Danger	Where or in what situations does the hazard arise?	Preventive action
Risk of chemical burns or irritation to skin, eyes and respiratory system from contact with cleaning agents and their fumes	▪ When removing the cleaning system ▪ When disposing of the appliance	▪ Wear personal protective equipment ▪ Observe the labels on the cleaning fluids and the relevant safety datasheets

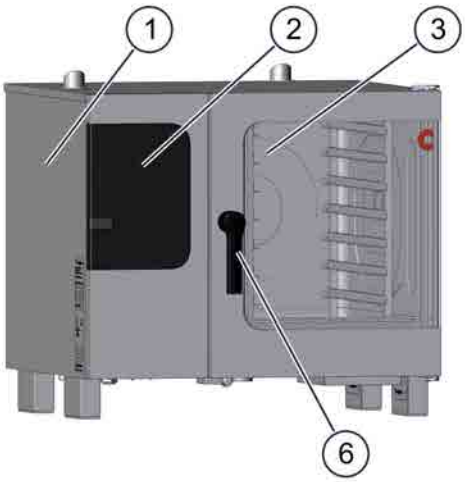
3.10 Safety devices

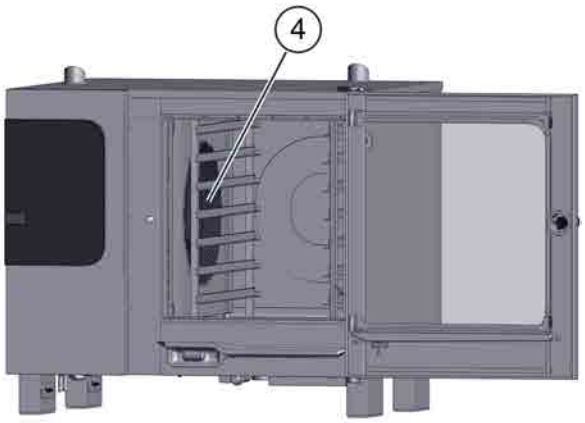
Meaning

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

Position and function (table-top units)

The following illustration shows a size 6.10 electric combi steamer as an example of all table-top models:





Position and function (floor-standing units)

The following illustration shows a size 20.20 electric combi steamer as an example of all floor-standing models:

Item	Safety device	Function	Check
1	Cover can only be removed using tool	▪ 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 with magnetic door switch	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

		Magnetic door switch (electrical door sensor):
		▪ When the appliance door is opened, the switch stops:
		  ▪ rotation of the fan (comes to a stop after a few seconds)
		  ▪ operation of the heating element
		  ▪ distribution of the cleaning fluids by the fully automatic oven cleaning system
		▪ Prompt to close the appliance door
			Check magnetic door switch at low temperature:
			Action:
			▪ Open the appliance door fully
			▪ Press Start
			Result:
			Motor must not start up

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	**For floor-standing units:** Built-in preheat bridge in appliance door	Prevents scalding from escaping steam when the loading trolley is not in the appliance during preheating	None
6	**For table-top units:** Venting position of appliance door	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
7 (no picture)	Safety thermostat ▪ 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)
8 (no picture)	Restart or forced rinsing after power failure in case cleaning fluid was left in the appliance	Re-starts fully automatic oven cleaning in a defined state after power failure	None
9 (installed by customer)	Disconnection device	▪ 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 case of danger	**Action:** ▪ Trip the disconnection device ▪ Check at the -X10 terminal strip on the appliance that none of the three phases carry a live voltage

Item	Safety device	Function	Check
10 (installed by customer)	Gas shut-off device	▪ 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 case of danger	Action: ▪ Close gas shut-off device ▪ Check that the appliance is isolated from the gas supply
11 (no picture)	Only when installing on a wheeled stand: Retaining device	Restricts the range of movement of the assembly (platform plus appliance) at the customer's site.	Check that the retaining device is connected

3.11 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 steamer or Owner's member of staff who is responsible for the appliance	▪ Customer's member of staff who is responsible for the combi steamer and for the personnel operating the combi steamer ▪ Knows the regulations associated with handling heavy loads	▪ As the representative for the entire team of operating personnel, is made aware of all safety-related functions and devices of the combi steamer 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	▪ 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	▪ 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 electrical, gas and water supplies and the wastewater system have been connected correctly. ▪ For servicing work on the gas fittings: is a qualified service engineer from a servicing company authorized by the gas supply company	▪ Setting up the appliance ▪ Installing the fully automatic oven cleaning system ▪ Preparing the appliance for first-time use ▪ Taking the appliance out of service
Gas fitter	▪ Is a gas fitter authorized by the gas supply company ▪ Has relevant professional training ▪ Is an employee of an authorized service company	▪ Connecting the appliance to the building's gas supply ▪ Disconnecting the gas supply
Electrical fitter	▪ Is an employee of an authorized service company ▪ Has relevant professional training ▪ Is a qualified electrician	▪ Connecting the appliance to the building's electrical supply ▪ Disconnecting the electrical supply

Role	Skills required	Tasks
Plumber	▪ Is an employee of an authorized service company ▪ Has relevant professional training	▪ Connecting the appliance to the building's water supply ▪ Disconnecting the water supply ▪ Connecting the appliance to the building's wastewater system ▪ Disconnecting the wastewater system
Start-up engineer (Service engineer)	▪ Is an employee of an authorized service company who has overall responsibility for preparing the combi steamer 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 electrical, gas and water supplies and the wastewater system have been connected correctly.	▪ 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 and preparing the appliance for first-time use

The working position for personnel installing and preparing the appliance for first-time use is the entire appliance area.

3.12 Personal protective equipment

Moving and setting up the appliance

Activity	Materials used	Personal protective equipment
▪ Conveying within the establishment ▪ Setting up the appliance on a work surface, stand or in a stacking kit ▪ Setting up the appliance in the installation location	▪ Lifting straps ▪ Suitable lifting gear ▪ Forklift truck or pallet truck	▪ Protective gloves ▪ Safety boots ▪ Hard hat (e.g. when heavy loads are being lifted, working overhead,...)

Installation, preparing for first-time use and taking out of operation

Activity	Materials used	Personal protective equipment
Installing and removing (taking out of operation) the ▪ Electrical connection ▪ Water connection ▪ Drain connection ▪ Gas supply	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
Installing and removing the ConvoClean / ConvoClean+ system	Tools and equipment depend on the task	Items of protection equipment, depending on cleaning agent being used: ▪ Breathing mask ▪ Safety goggles ▪ Protective gloves ▪ Protective clothing/apron The EC safety datasheet for the relevant cleaning fluid 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 fluid concerned.
▪ Preparing the appliance for first-time use ▪ 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: ▪ Protective clothing ▪ Heat protective gloves (compliant with EN 407 in European Union) ▪ Safety boots
Dismantling the appliance (taking out of operation)	▪ Lifting straps ▪ Suitable lifting gear ▪ Forklift truck or pallet truck	▪ Protective gloves ▪ Safety boots ▪ Hard hat (e.g. when heavy loads are being lifted, working overhead,...)

4 Moving the appliance

Purpose of this chapter

This chapter provides information on how to move the appliance.

This chapter is intended for the owner's member of staff responsible for the appliance and for a qualified member of staff from an authorized service company.

Contents

This chapter contains the following topics:

4.1 Working safely with the appliance

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions when moving the appliance* on page 28'.

Eligibility of personnel for moving the appliance

Personnel eligible for moving the appliance:
- Only personnel who are trained in the use of a pallet truck and fork-lift truck for handling purposes are permitted to move the appliance.
- Personnel must be aware of the regulations relating to handling heavy loads.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

Moving heavy loads

⚠WARNING

Risk of injury from lifting incorrectly

When lifting the appliance, the weight of the appliance may lead to injuries, especially in the area of the torso.

▷ Use a fork-lift truck/pallet truck to move the appliance.

▷ When lifting the appliance, use enough people for the weight of the appliance (guide value: 15 to 55 kg max., depending on age and gender). Observe the local occupational safety regulations.

▷ Wear personal protective equipment.

Unsuitable supporting surface

⚠WARNING

Risk of crushing if the appliance tips over or falls off

Body parts can be crushed if the appliance tips over or falls off.

▷ Make sure that the appliance is never placed on an unsuitable supporting surface.

4.2 Moving 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	12.20	20.10	20.20
Width	[mm]	1110	1345	1110	1345	1410	1165	1410
Height	[mm]	1010	1010	1280	1280	1615	2150	2150
Depth	[mm]	940	1140	940	1140	1170	970	1170

Load bearing capability for conveying the appliance

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

Refer to the weight of the appliances including packaging to determine the minimum working load limit of handling equipment; see 'Dimensions and weights on page 112'

Moving the appliance to the installation location

Please observe the following points when conveying the appliance:

- Always move the appliance on a pallet.
- Always move the appliance in an upright position.
- 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 the appliance along uneven routes or up or down steep slopes.

5 Setting up the appliance

Purpose of this chapter

This chapter provides information on how to set up your appliance.

This chapter is intended for the owner's member of staff responsible for the appliance and for a qualified member of staff from an authorized service company.

Contents

This chapter contains the following topics:

5.1 Safe working when setting up the appliance

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions when setting up the appliance* on page 29'.

Eligibility of personnel for setting up the appliance

Personnel eligible for setting up the appliance:

- Only qualified personnel from an authorized service company are permitted to set up the appliance.

Regulations for setting up the appliance

Local and national standards and regulations relating to workplaces in catering kitchens must be observed.

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

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

Moving heavy loads

⚠WARNING

Risk of injury from lifting incorrectly

When lifting the appliance, the weight of the appliance may lead to injuries, especially in the area of the torso.

- ▷ Use a forklift truck or pallet truck to place the appliance in the installation position or to move it to a new position.
- ▷ To shift the appliance into the correct position, lift the appliance using enough people for the weight of the appliance (guide value: 15 to 55 kg max., depending on age and gender). Observe the local occupational safety regulations.
- ▷ Wear personal protective equipment.

Unsuitable supporting surface

⚠WARNING

Risk of crushing if the appliance tips over or falls off

Body parts can be crushed if the appliance tips over or falls off.

- ▷ Make sure that the appliance is never placed on an unsuitable supporting surface.

5.2 Adjacent systems

Dealing with the discharged air

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

- The guide value for the minimum vertical clearance is listed in *'Requirements for the installation location'* on page 50.
- Type of air-vent system
- the nature of the ceiling in the installation location

It is a fundamental requirement that the combi steamer 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 steamer into the surrounding air. It is not permitted to connect pipes directly to the exhaust outlet(s) of the combi steamer 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 steamer 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:

- The guide value for the minimum vertical clearance is listed in *'Requirements for the installation location'* on page 50.
- 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 steamer 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.

5.3 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.

⚠ 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:

- It must be possible to comply with the operating conditions. For operating conditions, see '*Requirements relating to the operating environment of the combi steamer* on page 23'.
- 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 49 and the minimum space required for the appliance.
- Heat sources in the vicinity must lie at a minimum distance of 500 mm.
- 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 table-top units of size x.10
  - 1450 mm for table-top units of size x.20
  - 1600 mm for floor-standing units.
- The appliance must not be installed 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 **table-top units**, it must be possible to set up the supporting structure for the appliance (work surface, stand or stacking kit) in the installation position so that it cannot tip over or slide about. It must be possible to set up **floor-standing units** in the installation position so that they cannot tip over or slide about. The supporting surface must satisfy the requirements listed below.
- For **table-top units** on a wheeled platform, a retaining device must be connected to limit the range of movement of the assembly (platform plus appliance) at the customer's site. The maximum distance that the platform plus appliance can be pulled out is 0.5 m.
  The lengths of the supply cables and pipes must accommodate the range of movement allowed by the retaining device. When moving the assembly, never strain or wheel over the supply cables and pipes.
- In environments in which the appliance might be subject to strong vibrations or jolting (e.g. on vehicles or on ships), the appliance must be fixed in the installation position using the suitable accessory.
- For **table-top units**, vibrations must generally be avoided when using wheeled oven stands or wheeled stacking kits.

Requirements for the supporting surface

The supporting surface 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.
- For **table-top units**, the work surface or stand must have a load bearing capability 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 steamer 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 list of individual weights to find the total appliance weight:

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Weight of combi steamer when empty	[kg]	See weight excluding packaging in *'Dimensions and weights'* on page 112						
Maximum permissible loading weight	[kg]	30	60	50	100	120	100	180
Maximum weight of cleaning fluids	[kg]	20	20	20	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 steamers safely, in particular to handle hot food safely.

For the distance that is actually needed between the top of the combi steamer and the ceiling, please refer to the topic *'Adjacent systems'* on page 49.

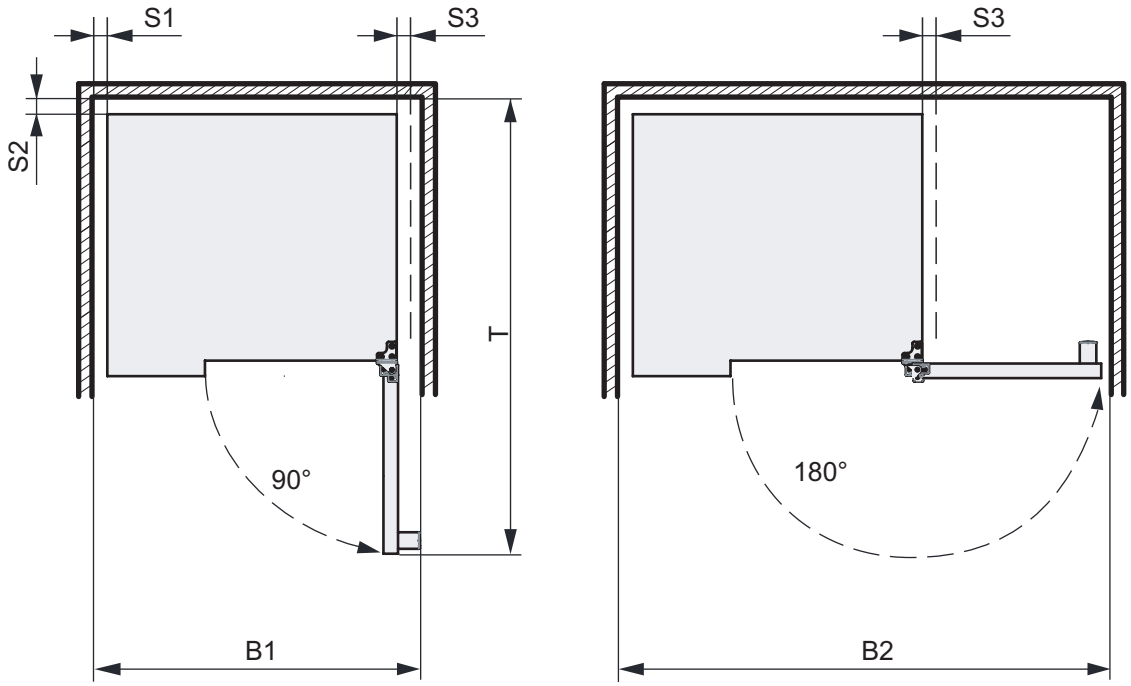
Larger wall gaps are generally recommended to provide access for servicing.

In the installation location, the following parts must not be covered, obstructed or blocked (see also '*Design and function of the combi steamer* on page 15'):

- 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 right-hinged door - width and depth

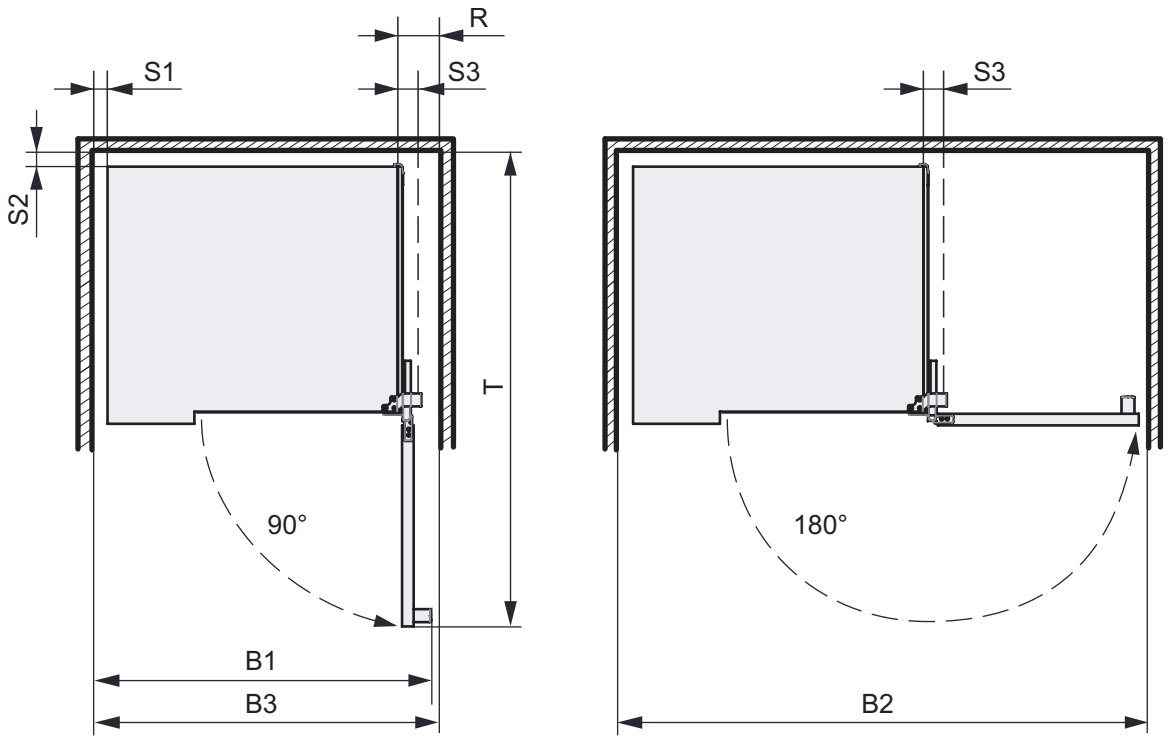
The following diagram and table show the space required for the appliance for different installation and operating situations. They also show the minimum horizontal distances from adjacent walls and surfaces. The safety clearances on the left, right and rear must always be complied with.



	Meaning		6.10	6.20	10.10	10.20	12.20	20.10	20.20
B1	Width requirement, appliance door open at 90°	[mm]	995	1240	995	1240	1309	1064	1309
B2	Width requirement, appliance door open at 180°	[mm]	1413	1863	1413	1863	1955	1505	1955
T	Depth requirement when opening the appliance door	[mm]	1379	1784	1379	1784	1835	1430	1835
S1	Safety clearance on left-hand side	[mm]	50	50	50	50	50	50	50
S2	Safety clearance at rear	[mm]	50	50	50	50	50	50	50
S3	Safety clearance on right-hand side	[mm]	50	50	50	50	50	50	50

Space required for disappearing door - width and depth

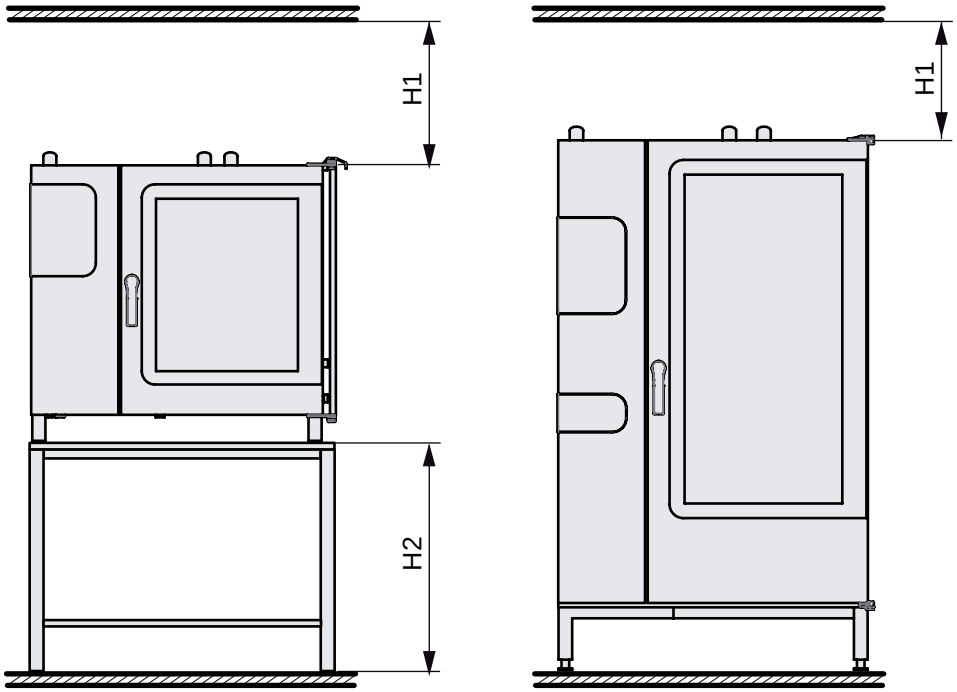
The following diagram and table show the space required for the appliance for different installation and operating situations. They also show the minimum horizontal distances from adjacent walls and surfaces:



	Meaning		6.10	6.20	10.10	10.20	12.20	20.10	20.20
B1	Width requirement, appliance door open at 90°	[mm]	1052	1297	1052	1297	1338	1093	1338
B2	Width requirement, appliance door open at 180°	[mm]	1510	1960	1510	1960	2010	1560	2010
B3	Width requirement, disappearing door retracted	[mm]	1055	1300	1055	1300	1345	1100	1345
R	Space required on right-hand side, disappearing door retracted	[mm]	130	130	130	130	160	160	160
T	Depth requirement when opening the appliance door	[mm]	1419	1824	1419	1824	1860	1455	1860
S1	Safety clearance on left-hand side	[mm]	50	50	50	50	50	50	50
S2	Safety clearance at rear	[mm]	50	50	50	50	50	50	50
S3	Safety clearance on right-hand side	[mm]	50	50	50	50	50	50	50

Height requirement

The following diagram and table show the vertical space needed by the appliance:

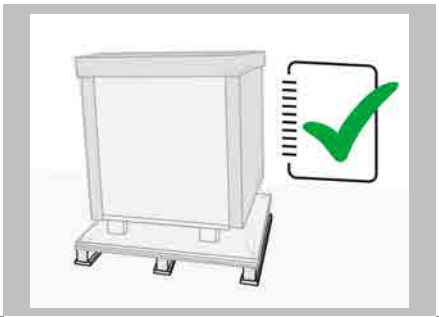
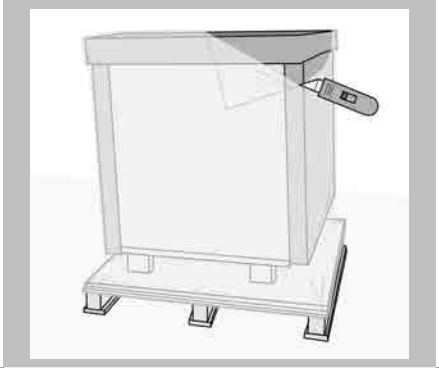
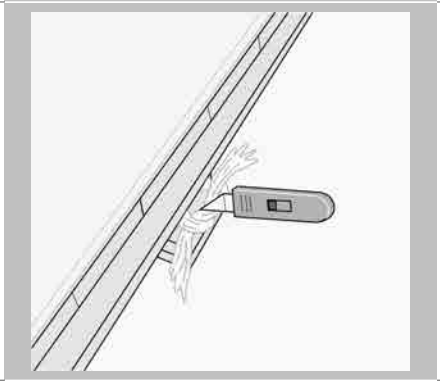


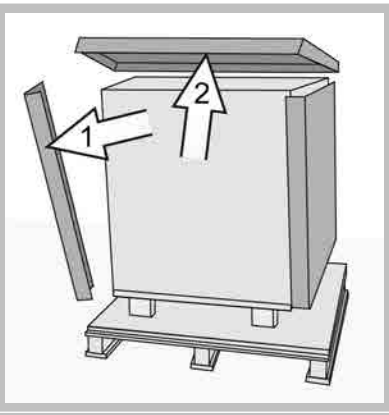
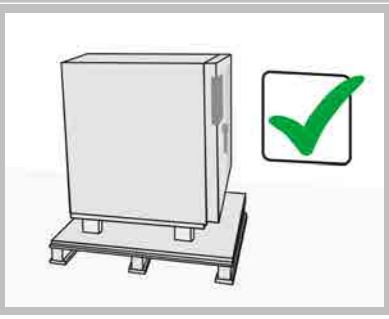
The service engineer who is responsible for setting up the appliance must take into account the nature of the ceiling and any adjacent systems that may be used (air conditioning system, vapour extractor hood etc.) when designing the particular clearance needed between the top of the appliance and the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

	Meaning		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Electric appliances									
H1	Guide value for the minimum vertical clearance	[mm]	500	500	500	500	500	500	500
Gas appliances									
H1	Guide value for the minimum vertical clearance	[mm]	1000	1000	1000	1000	1000	1000	1000
Electric appliances and gas appliances									
H2	Installation height	[mm]	620 - 900	620 - 900	620 - 900	620 - 900	-	-	-

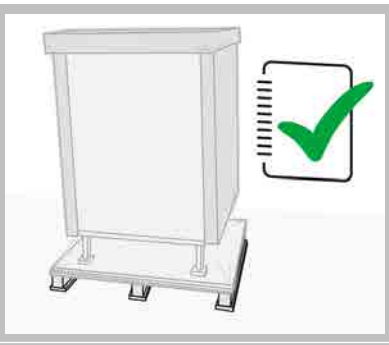
5.4 Unpacking

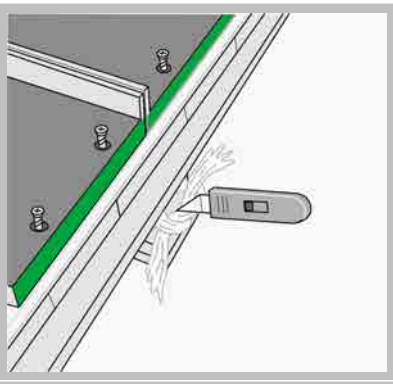
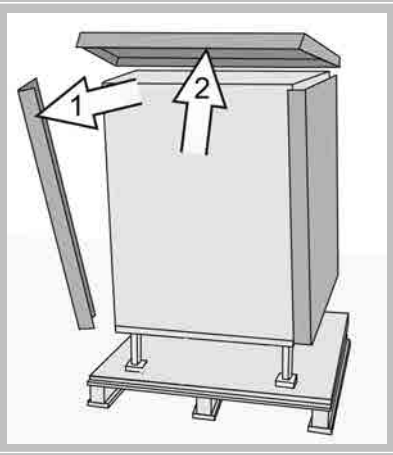
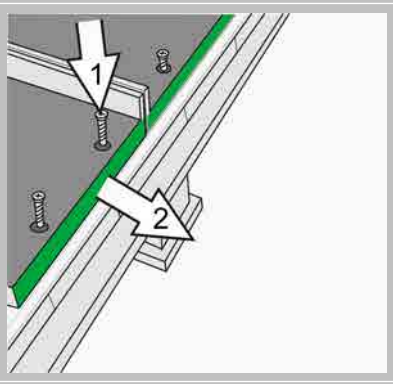
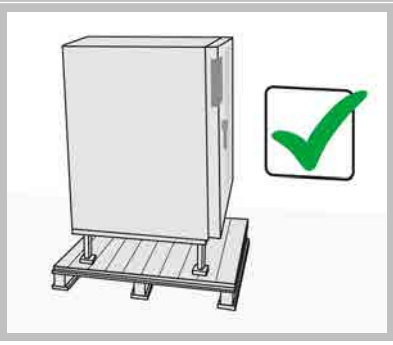
Unpacking the appliance (table-top units)

1.		Inspect the appliance for damage before signing the delivery note. Record any damage on the delivery note and notify the carrier and manufacturer.
2.		Use a cutting tool to cut open the stretch plastic cover from top to bottom along one of the corner pieces.
3.		Cut the fastener holding the stretch plastic.

4.		▪ Remove all the corner pieces one at a time by lifting up the top cover briefly at each corner. ▪ Then take the top cover off completely. ▪ Remove the customer documentation from the top of the appliance.
5.		Inspect the appliance again for damage. If you suspect the appliance has been damaged during transit, notify your dealer/carrier immediately. Please notify the manufacturer in writing within three days. Never install or put into service a damaged appliance under any circumstances.

Unpacking the appliance (floor-standing units)

1.		Inspect the appliance for damage before signing the delivery note. Record any damage on the delivery note and notify the carrier and manufacturer.
2.		Use a cutting tool to cut open the stretch plastic cover from top to bottom along one of the corner pieces.

3.		Cut the fastener holding the stretch plastic.
4.		▪ Remove all the corner pieces one at a time by lifting up the top cover briefly at each corner. ▪ Then take the top cover off completely. ▪ Remove the customer documentation from the top of the appliance.
5.		Undo the screw fastenings on the slides and pull the slides out. Keep the screws and slides to hand. **Additional information:** The slides will be used as a ramp for the appliance.
7.		Inspect the appliance again for damage. If you suspect the appliance has been damaged during transit, notify your dealer/carrier immediately. Please notify the manufacturer in writing within three days. Never install or put into service a damaged appliance under any circumstances.

Contents

The following parts are supplied:

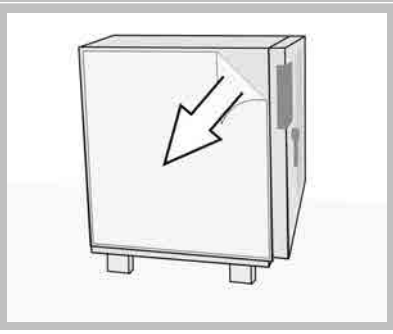
- 1x combi steamer
- 1x left-hand rack (table-top units only)
- 1x right-hand rack (table-top units only)
- 1x loading trolley (floor-standing units only)
- 1x Installation manual
- 1x User manual (hardware)
- 1x Operating instructions (software)
- 1x 10-litre empty canister (for easyDial controls, only for ConvoClean option)
- 1x flat bend for installing the drain connection (table-top units only)

5.5 Taking the appliance off the pallet

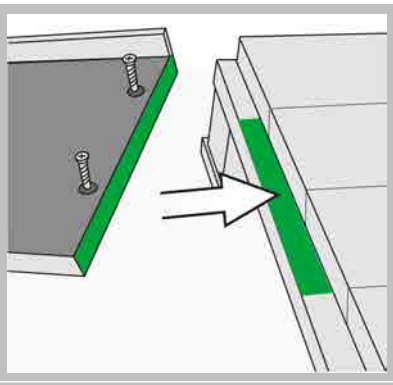
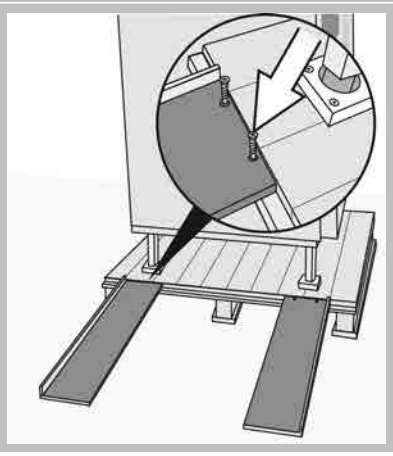
Using lifting straps to take the appliance off the pallet (table-top units)

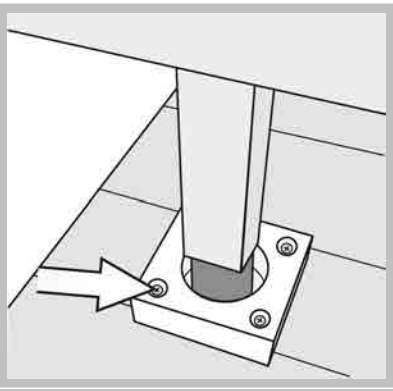
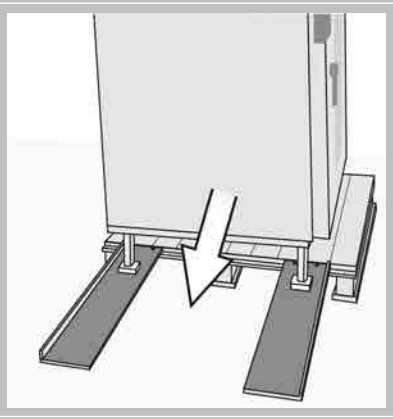
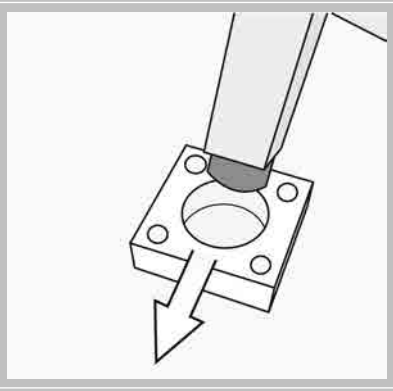
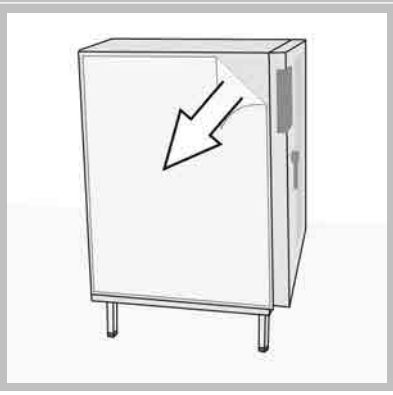
The weight of your appliance is given in the '*Technical Data* on page 111'.

The diagram below shows a size 6.10 combi steamer as an example of all table-top units:

1.		Attach the lifting straps to the appliance feet.
2.		To prevent it slipping off the pallet, the combi steamer 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 steamer.

Taking the appliance off the pallet (floor-standing units)

1.		On one side of the appliance, place the slides on the green markers with the safety lip facing outwards in each case. Make sure that you push each slide right up against the pallet so that the screws have sufficient material to screw into.
2.		Screw the two slides onto the pallet.

3.		Remove all the screws from the slide blocks.
4.		Use at least two people to slide the appliance, on the slide blocks, down the slides and onto the floor to the installation location. **WARNING** Risk of crushing from the appliance tipping over ▪ Before sliding the appliance off the pallet, make sure that the slides are screwed firmly to the pallet. ▪ Take care not to let an appliance foot slip off the side of the slide. ▪ Be careful when transferring the appliance from the slide onto the non-slip floor.
5.		Lift up the combi steamer slightly and remove the slide blocks.
6.		Remove the protective plastic from the combi steamer.

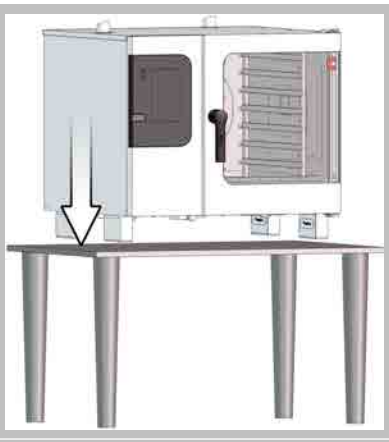
5.6 Setting up a table-top unit on a work surface

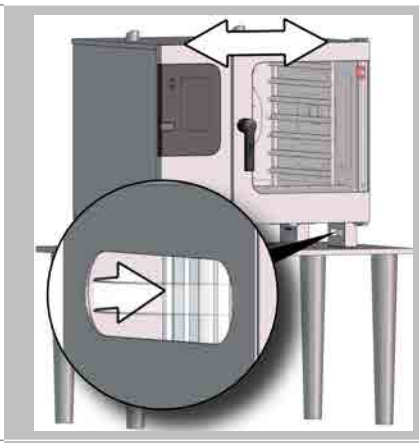
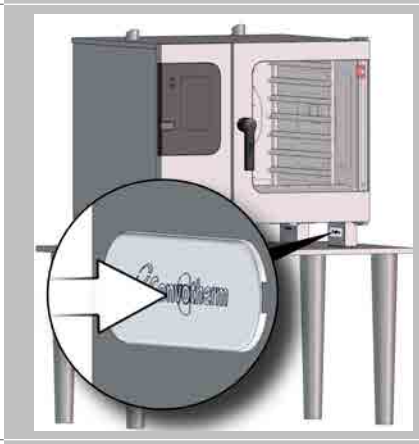
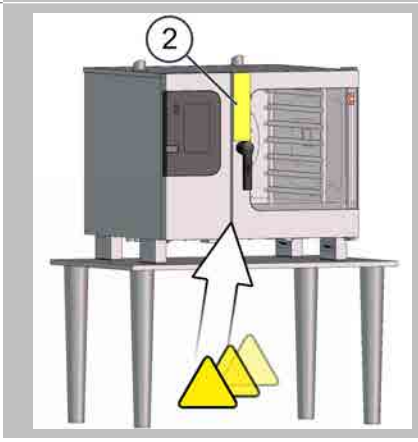
⚠ Rules for setting up the appliance safely

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

- It must be possible to set up the work surface in the installation position so that it cannot tip over or slide about. The supporting surface must comply with the requirements.
- The work top must have a non-slip surface. If necessary, place non-slip pads under the appliance feet (pads available from manufacturer).
- If you intend to load the combi steamer using transport trolleys, the appliance must be installed at the same height as the loading height of the transport trolley. The roll-in frame inserted in the cooking chamber and the surface on which the mobile shelf rack sits on the transport trolley must be at the same height when the transport trolley is attached to the combi steamer.
  It must be possible to wheel the transport trolley up to the cooking chamber and to fix it to the roll-in frame on a horizontal surface that is clear of obstructions.

Setting up the appliance on a work surface

1.		Position the appliance on the work surface.
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 2° (3.4%). **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 signs in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning sign in place. **Additional information:** you can find the warning sign stickers inside the oven.

Type and position of the warning sign stickers to be attached

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

Warning sign	Position on the combi steamer
	Somewhere on the left side of the appliance door in area 2 (see *'Warning signs on the combi steamer'* on page 24) depending on the installation situation. Directly above the door handle if ▪ the top of the appliance lies above 1.20 m ▪ 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 steamer'* on page 24) at a height of 1.60 m above the kitchen floor.

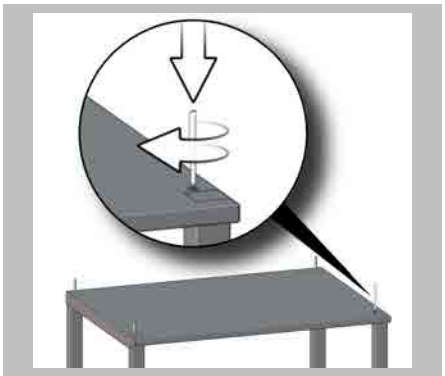
5.7 Setting up a table-top unit on a stand

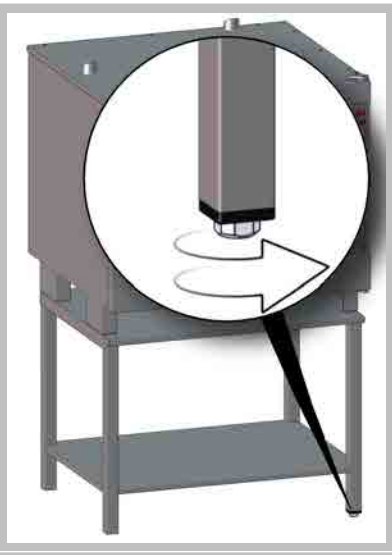
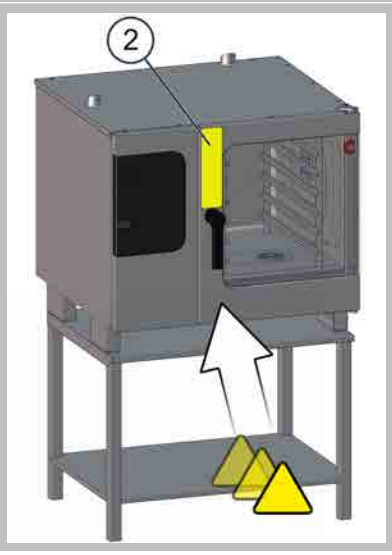
⚠ Rules for setting up the appliance safely

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 the requirements.
- If you intend to load the combi steamer using transport trolleys, the appliance must be installed at the same height as the loading height of the transport trolley. This is automatically the case if the surface for wheeling up the transport trolley lies at the same level as the surface for on which the combi steamer stand is installed.

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 2° (3.4%).
4.		Stick the necessary warning signs in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning sign in place. **Additional information:** you can find the warning sign stickers inside the oven.

Type and position of the warning sign stickers to be attached

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

Warning sign	Position on the combi steamer
	Somewhere on the left side of the appliance door in area 2 (see *'Warning signs on the combi steamer'* on page 24) depending on the installation situation. Directly above the door handle if ▪ the top of the appliance lies above 1.20 m ▪ 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 steamer'* on page 24) at a height of 1.60 m above the kitchen floor.

5.8 Setting up a table-top unit on a wheeled 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 the requirements.
- For **table-top units** on a wheeled platform, a retaining device must be connected to limit the range of movement of the assembly (platform plus appliance) at the customer's site. The maximum distance that the platform plus appliance can be pulled out is 0.5 m.
  The lengths of the supply cables and pipes must accommodate the range of movement allowed by the retaining device. When moving the assembly, never strain or wheel over the supply cables and pipes.
- If you intend to load the combi steamer using transport trolleys, the appliance must be installed at the same height as the loading height of the transport trolley. This is automatically the case if the surface for wheeling up the transport trolley lies at the same level as the surface for on which the combi steamer stand is installed.

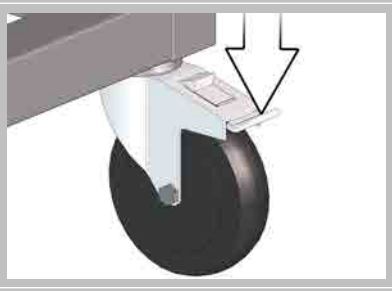
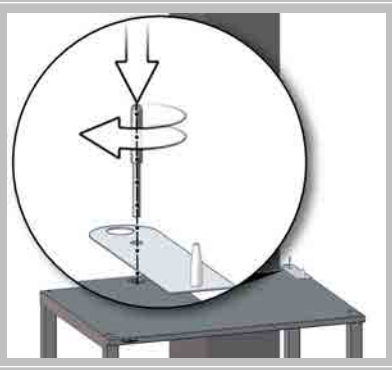
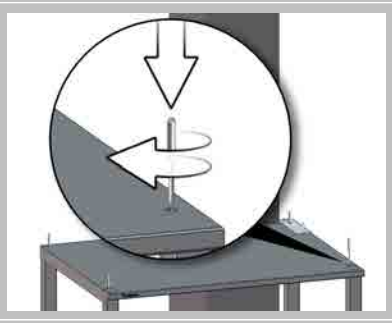
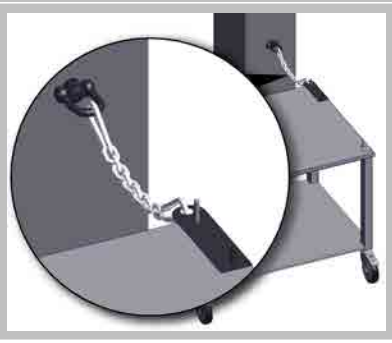
Materials required

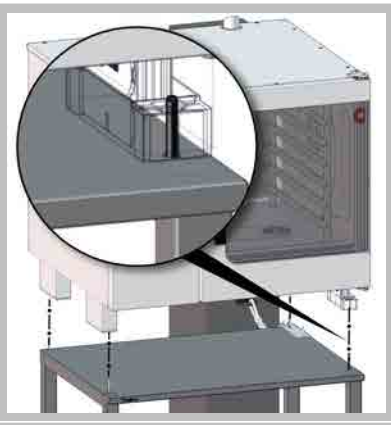
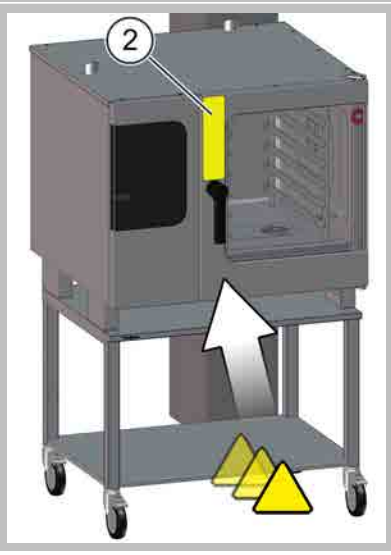
- A suitable part that can be bolted to a permanent fixture at the customer's premises as an anchoring point and to which a suitable retaining mechanism can be fastened.
  This may be an eyebolt, for instance, which is bolted into a wall plug in a hole drilled into the building wall behind the combi steamer.
  The part bolted onto the customer's building must be able to withstand the tensile stresses that can arise from the weight of the assembly and the forces exerted by the operator when moving the combi steamer on the wheeled stand.
- A suitable retaining mechanism, which can be connected to the anchoring point and to the fixing eyelet on the stand.
  This may be a safety chain with a carabiner catch at each end, for instance.
  The retaining mechanism must be able to withstand the tensile stresses that can arise from the weight of the assembly and the forces exerted by the operator when moving the combi steamer on the wheeled stand.
  The length of the retaining mechanism must be chosen in conjunction with the positions of the anchoring point and the fixing eyelet on the stand such that the combi steamer cannot move further than 0.5 m maximum.

Requirements

The anchoring point must be installed on the customer's building before setting up the wheeled stand.
The position of the anchoring point must be chosen in conjunction with the length of the retaining mechanism and the fixing point on the assembly such that the combi steamer cannot move further than 0.5 m maximum.
(Ideally, the anchoring point is located directly behind, and at the same height as, the fixing eyelet on the stand.)

Setting up the appliance on a wheeled stand

1.		Position the wheeled stand in the installation location and level it so that the absolute tilt of the appliance in operation does not exceed 2° (3.4%).
2.		Lock the parking brakes on the stand.
3.		Decide which corner of the stand to use for attaching the retaining mechanism. Screw the bracket containing the fixing eyelet into the threaded hole provided in this corner of the stand. The bracket must lie parallel to the edge of the stand with the eyelet end pointing to the rear. Use the screwdriver to tighten the threaded bolt.
4.		Screw the other three threaded bolts into the threaded holes provided in the oven stand and tighten the threaded bolts with the screwdriver.
5.		Connect the retaining device, which restricts the degree of movement of the wheeled stand.

6.		Position the appliance on the stand. Make sure that all four bolts and the pin on the bracket are guided into the locating holes in the appliance feet provided for the purpose.
7.		Stick the necessary warning signs in the specified positions. Make sure that the surface is clean of oil and grease before sticking the warning sign in place. **Additional information:** you can find the warning sign stickers inside the oven.

Type and position of the warning sign stickers to be attached

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

Warning sign	Position on the combi steamer
	Somewhere on the left side of the appliance door in area 2 (see *'Warning signs on the combi steamer'* on page 24) depending on the installation situation. Directly above the door handle if ▪ the top of the appliance lies above 1.20 m ▪ 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 steamer'* on page 24) at a height of 1.60 m above the kitchen floor.
	On the left side of the appliance door in area 2 (see *'Warning signs on the combi steamer'* on page 24)
	On the left side of the appliance door in area 2 (see *Warning signs on the combi steamer* on page 24*)*

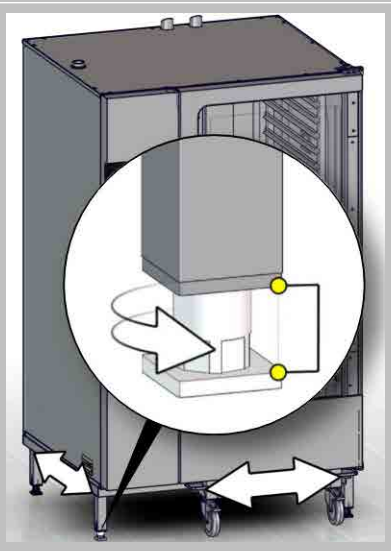
5.9 Setting up a floor-standing unit on the floor

⚠ 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 appliance in the installation position so that it cannot tip over or slide about. The supporting surface must satisfy the requirements listed below.

Setting up the appliance

1.		Position the appliance on the floor.
2.		Ensure the appliance is horizontal by adjusting the height of the appliance feet. Use a spirit level to ensure the unit is horizontal in all directions. Make sure that the loading trolley can move freely into the appliance and stands horizontally in the appliance. The absolute tilt of the appliance in operation must not exceed 2° (3.4%).

6 Installation

Purpose of this chapter

This chapter explains how to connect your combi steamer. This chapter is intended for a qualified electrician from an authorized service company, a qualified and certified gas installation engineer with appliance-specific training who has been authorized by the local gas supply company, a qualified plumber from an authorized service company and a qualified member of staff from an authorized service company.

Contents

This chapter contains the following topics:

6.1 Electrical installation

Purpose of this section

This section shows you how to perform the electrical installation. This chapter is intended for a qualified electrician from an authorized service company.

Contents

This section contains the following topics:

6.1.1 Safe working during electrical installation

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions during installation* on page 30'.

Eligibility of personnel for the electrical installation

Only electricians from an authorized service company who are qualified and certified under the terms of EN 50110-1 or in accordance with applicable national and local regulations are permitted to perform work on electrical equipment.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

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 (0100/0700) and/or with applicable local regulations of the professional associations and of the relevant power supply company.

Live parts

⚠DANGER

Risk of electric shock from live parts and loose cables

When the safety cover is open, there is a risk of electric shock from touching live parts.

▷ Make sure that any work on the electrical system is performed solely by a qualified electrician from an authorized service company.

▷ Before removing the safety covers:
- 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.
- Make sure that the appliance is de-energized.

▷ Make sure that the electrical connections are intact and connected securely before putting the appliance into use.

▷ Before preparing the appliance for use, make sure that the appliance, including all metallic accessories, is connected to an equipotential bonding system.

6.1.2 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 appliances

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

- The case of the appliance must be grounded in a suitable manner and connected to an equipotential bonding system.
- If two **table-top units** are installed in a stacking kit, both cases of the appliances and the stacking kit itself must be grounded in a suitable manner and connected to an equipotential bonding system.
- For **table-top units** on a wheeled platform, the length of the mains power lead must accommodate the range of movement allowed to the appliance by the retaining device on the wheeled platform. When moving the assembly (platform plus appliance), never strain or wheel over the mains supply cable.
- All electrical connections must be checked when the appliance is prepared for first-time use to ensure cables are laid correctly and connections are made properly.

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	Regulations
Fuse	Fuse protection and connection of the appliance must comply with local regulations and national installation requirements.
Equipotential bonding	The appliance must be incorporated in an equipotential bonding system. Equipotential bonding: electrical connection that ensures that the frames of electrical equipment and any external conductive components are at an equal (or practically equal) potential.
Ground fault circuit interrupter (GFCI)	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.
Disconnection device	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 disconnection device 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 one frequency converter (FC) or with two frequency converters (appliances of size 20.10 and 20.20) with built-in EMC filter and an EMC mains input filter. These devices may result in a leakage current of more than 3.5mA per FC drive.

Use a suitable RCD for the rated voltage:

Frequency converter (single phase)	Frequency converter (three phase)
Rated voltage	
3N~ 400V 50/60Hz	3~ 400V 50/60Hz
3~ 230V 50/60Hz	3~ 440V 60Hz
3~ 200V 50/60Hz	3~ 480V 60Hz
3~ 200-240V 50/60Hz	3~ 440-480V 60Hz
3~ 208/240V 60Hz	-
1N~ 230V 50/60Hz	-
1N~ 100V 50/60Hz	-
1N~ 110-120V 60Hz	-
Recommended residual-current device	
Type A	Type B/F
Optional residual-current device	
Type B/F	-

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 >30mA:
  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 ≤30mA:
  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 direction of rotation.

6.1.3 Carrying out the electrical installation

Requirements

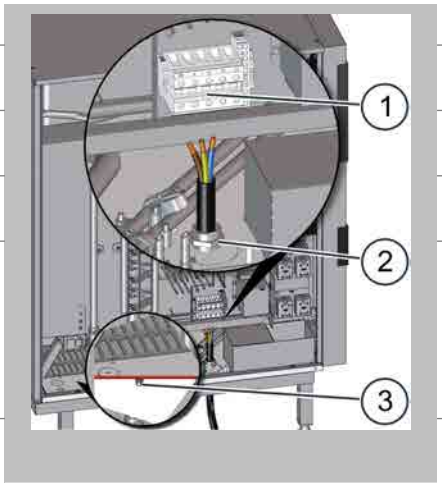
Check that the following requirement has been met:
- The connection point of the appliance is disconnected from the customer power supply and protective measures taken to ensure the power cannot be switched on again.

Checking the supply ratings and electrical connections

1.		Remove the side panel from the appliance. The circuit diagram and spare parts list are located in the wiring compartment.
2.		Check that the electrical supply ratings on the type plate (see '*Identifying your combi steamer* on page 8') 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.
3.		Check all screw connections and terminals on the appliance. The connections may have worked loose during transport.

Carrying out the electrical installation

The figure below shows a size 12.20 combi steamer as an example for all appliance sizes:

1.		Remove the side panel from the appliance.
2.		Connect the appliance to a potential equalization system at the designated connection point (3).
3.		Use the mains power cable to connect the power supply to the appliance at the -1X0 terminal block (1).
4.		Make sure that the cable gland (2) is tightened firmly because it also acts as a cable strain relief.
5.		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.
6.		Fit the side panel on the appliance and check that it is fixed correctly in place.

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

Purpose of an energy optimization system

You can connect the combi steamer 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

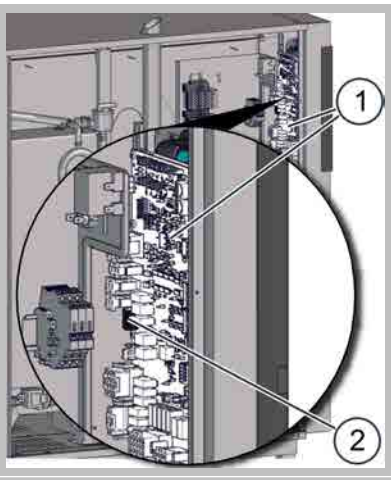
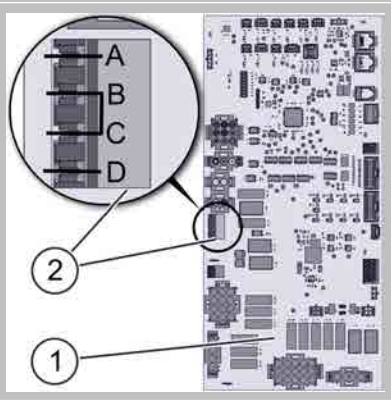
The energy optimization system must be configured as follows:

- The continuous switch-on time for the combi steamer 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.

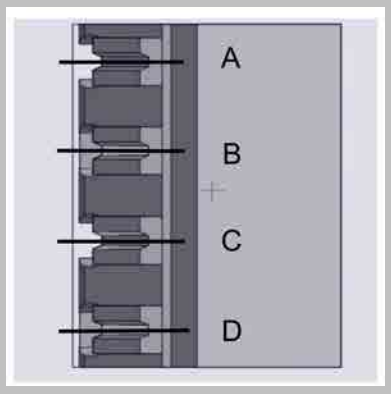
When connecting the system, refer to the circuit diagram and operating instructions of the energy optimization system.

Connecting an energy optimization system

The figure below shows a size 12.20 combi steamer as an example for all appliance sizes:

1.		Disconnect the energy optimization system and the combi steamer from the power supply.
2.		Remove the side panel from the combi steamer in order to access terminal block -X37 (2) on the electronic circuit board (SIB) (1).
3.		Remove the wire link between the terminals (B) and (C) on terminal block -X37 (2).

4.



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

Terminal	Combi steamer	Energy optimization system
A	Phase, when combi steamer is on	-
B	Phase, when combi steamer 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	-

5.

Refit the side panel on the combi steamer.

6.

Put the combi steamer and energy optimization system into operation.

6.2 Gas installation

Purpose of this section

This section shows you how to perform the gas installation.

Contents

This section contains the following topics:

6.2.1 Safe working when installing the gas

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions during installation* on page 30'.

Eligibility of personnel for the gas installation

Connection of the appliance to the gas supply must be performed in accordance with the local statutory regulations and solely by qualified gas fitters with appliance-specific training who have been authorized by the local gas supply company and trained and certified in accordance with applicable national and local regulations.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

Regulations for the gas installation

Find out about all national and regional laws and regulations and the regulations from local supply companies and authorities, as well as any other possible requirements which are applicable when installing this gas appliance in the given location. Always comply with these regulations without fail.

Follow the building regulations and technical requirements that apply to installing gas appliances at the installation site concerned.

The gas installation must be performed in accordance with the regulations of the gas supply company.

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

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 supply company and if necessary the fire brigade using a phone located outside the hazardous area.

Escaping gas

⚠DANGER

Risk of explosion from escaping gas

Escaping gas can ignite and cause an explosion.

▷ Install a gas shut-off device close to the appliance.

▷ For table-top units on a wheeled platform with flexible supply pipe, in order to secure the appliance in place, make sure that the retaining device which restricts the range of movement of the platform plus appliance is connected.

▷ Never move the appliance during use

6.2.2 Planning the gas installation

⚠ Rules for safe gas installation of the appliances

Observe the following rules to prevent hazards caused by faulty gas connections:
- The combi steamer is supplied from the factory for operation with a defined gas type (see appliance type plate). In order to operate the combi steamer using different gas types, a qualified member of staff from an authorized service company must first convert the combi steamer.
- 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 steamer into operation.
- For table-top units with a wheeled platform, the gas supply must be provided via a flexible gas supply pipe.
- For **table-top units** on a wheeled platform, the length of the gas supply pipe must accommodate the range of movement allowed to the appliance by the retaining device of the wheeled platform. When moving the assembly (platform plus appliance), never strain or wheel over the gas supply pipe.

Type of gas appliance

The combi steamer is the following type of gas appliance:

Type of gas appliance	Meaning
B23	Open flues dependent on room air ▪ With burner fan upstream of the burner and ▪ **Without** draught 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 plan. 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 case of danger.
Pressure reducer	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 steamer 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'* on page 125.

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 49.

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

Exhaust gas temperature

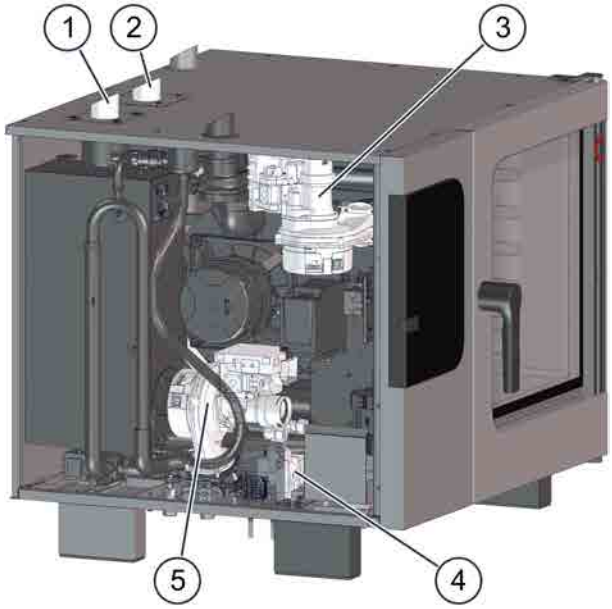
The temperature of the undiluted exhaust gas can reach 500°C.

Follow fire safety regulations.

6.2.3 Positions of the forced-air burners and gas distribution system

Position of the forced-air burners in appliances sizes 6.10, 6.20, 10.10, 10.20 and 12.20

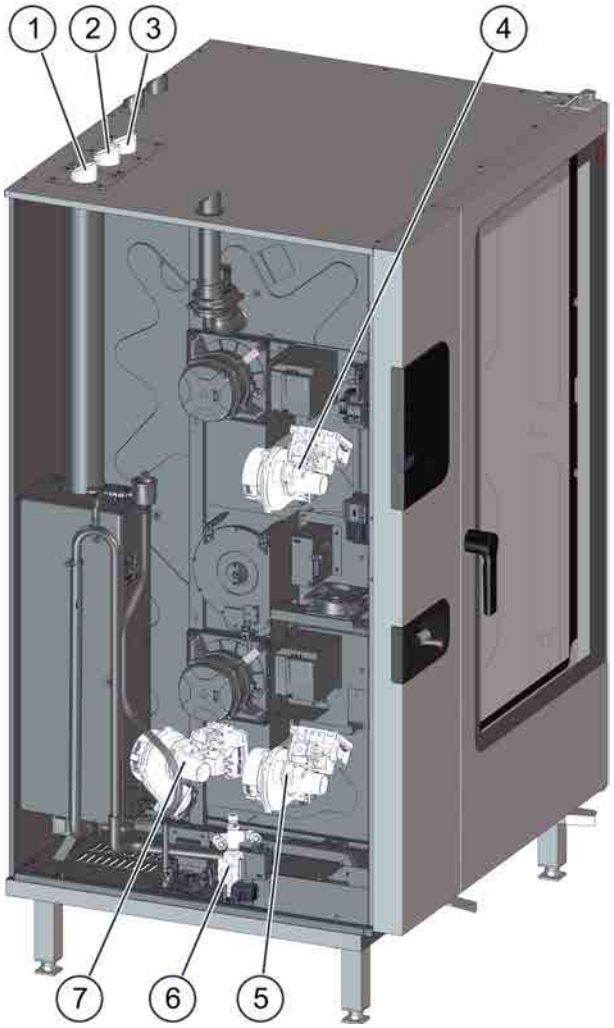
The following illustration shows a size 6.10 combi steamer with boiler as an example of gas models of size 6.10, 6.20, 10.10, 10.20 and 12.20:



Item	Name
1	Exhaust outlet from boiler forced-air burner (only on models with boiler not steam injection)
2	Exhaust outlet from convection forced-air burner
3	Convection forced-air burner
4	Gas distribution system, connection to gas supply in appliance floor
5	Boiler forced-air burner (only on models with boiler not steam injection)

Position of the forced-air burners in appliances sizes 20.10 and 20.20

The following illustration shows a size 20.20 combi steamer with boiler as an example of gas models of size 20.10 and 20.20:



Item	Name
1	Exhaust outlet from boiler forced-air burner (only on models with boiler not steam injection)
2	Exhaust outlet from bottom convection forced-air burner
3	Exhaust outlet from top convection forced-air burner
4	Top convection forced-air burner
5	Bottom convection forced-air burner
6	Gas distribution system, connection to gas supply in appliance floor
7	Boiler forced-air burner (only on models with boiler not steam injection)

6.2.4 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 locator 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.	*Summary of gas data* on page 123
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 forced-air burners and gas distribution system* on page 81
5.	Switch the appliance on.	
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:** ▪ 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 steamer at the gas shut-off device and discontinue the installation.	*Measuring the supply flow pressure* on page 84
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 85
10.	Switch off the appliance.	
11.	Notify the following bodies (where necessary) of the installation that has been made: ▪ Gas supply company ▪ Relevant authorities in accordance with local statutory regulations and requirements.	

6.2.5 Measuring the supply flow pressure

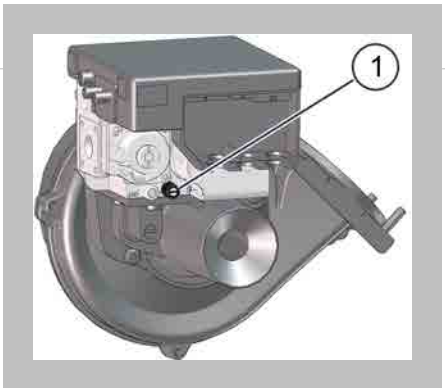
Requirements

- 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 83 as far as the step *'Measuring the supply flow pressure'*.

Materials required

- pressure meter

Measuring the supply flow pressure

1. 

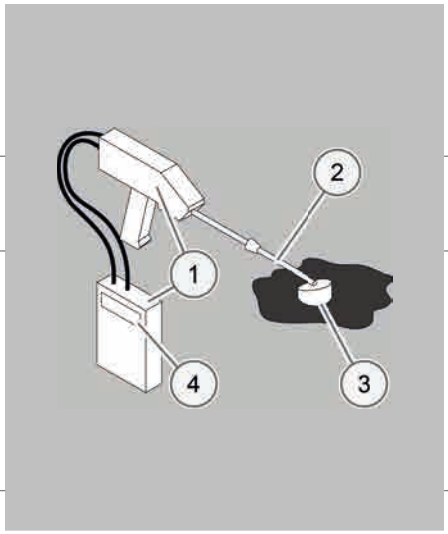
Measure the supply flow pressure at the valve (1) of the gas valve on the forced-air burner.
2. Compare the measured value with the specified limits; see *'Summary of gas data'* on page 123.
Result:
   - If the measured supply flow pressure is lower than the specified values:
     - Notify the gas supply company. 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.

6.2.6 Measuring the exhaust gas values

Materials required

- Exhaust gas analysis unit

Measuring the exhaust gas values

1.		Guide the measuring sensor (2) of the exhaust gas meter (1) into the exhaust outlet (3) for the burner to be measured. If the meter indicates approx. 21% O_2 or nothing at all, then the sensor is inside the wrong exhaust outlet.
2.		Measure the exhaust gas values. Follow the operating instructions for the meter when taking the readings.
3.		Wait 1 minute before taking the readings (4) and then compare them with the specified limit; see *'Exhaust gas values'* on page 124. ▪ If the reading does not lie within the limit, the appliance much be checked as directed in the adjustment instructions in the service documentation. Otherwise: ▪ Continue with Step 4.
4.		Record the measurements.

6.3 Water connection

Purpose of this section

This section shows you how to install the water connection. This chapter is intended for a qualified plumber from an authorized service company.

Contents

This section contains the following topics:

6.3.1 Safe working when connecting the water supply and the drain

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions during installation* on page 30'.

Eligibility of personnel connecting the water supply and the wastewater system

Only qualified plumbers from an authorized service company are permitted to connect the combi steamer to the water supply and to the waste wastewater system.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

Regulations for the water supply

Make sure that you comply with all local and national regulations relating to the water supply. These include:

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

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

Australia only:

Dual check valve supplied with this appliance must be installed in the water supply line to this appliance to provide total backflow prevention required by Plumbing Code of Australia.

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

6.3.2 Water supply

⚠ Rules for safe installation of the water supply

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

- For **table-top units** with a wheeled platform, the water supply must be provided via a flexible water supply pipe.
- For **table-top units** on a wheeled platform, the length of the water supply pipe must accommodate the range of movement allowed to the appliance by the retaining device of the wheeled platform. When moving the assembly (platform plus appliance), never strain or wheel over the water supply pipe.

Connecting the water supply

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

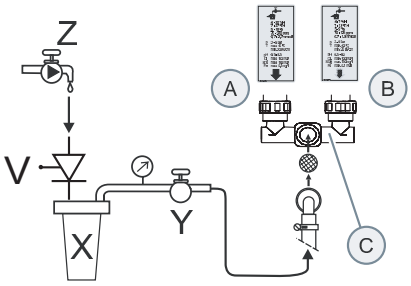
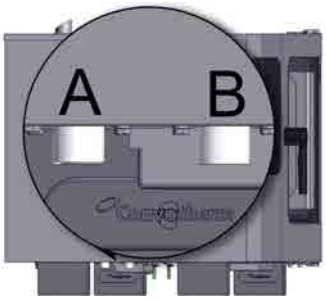
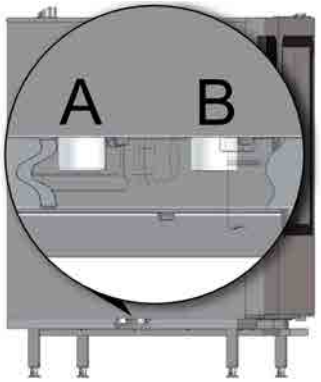
Connecting the water supply with a flexible connecting pipe

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.

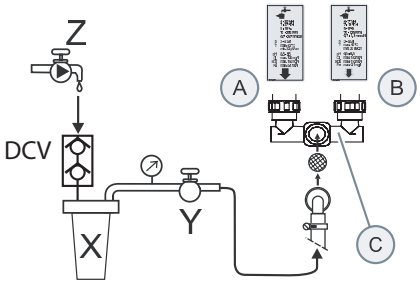
Water quality and water hardness

- 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 92'.
- Information on the required drinking water quality is given in the *'Technical Data'* on page 111 chapter under the *'Water quality'* on page 131 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 92' to ensure that after water treatment, the water meets the specified quality values.

Connection diagram without water treatment

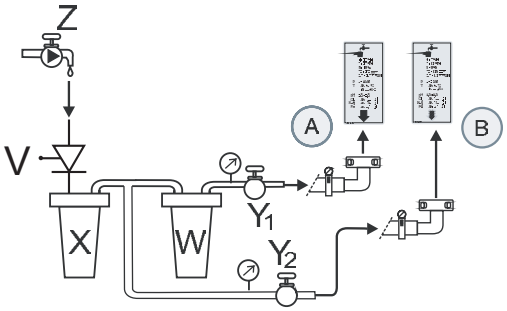
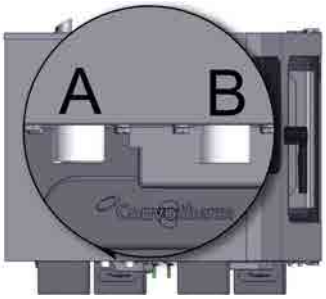
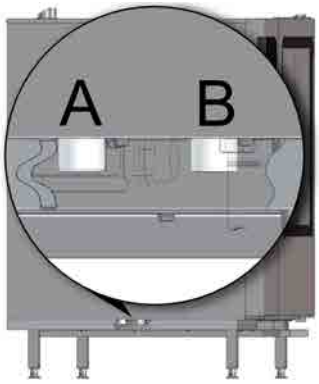
Connection diagram	Connections on table-top units	Connections on floor-standing units
		

Australia / New Zealand:

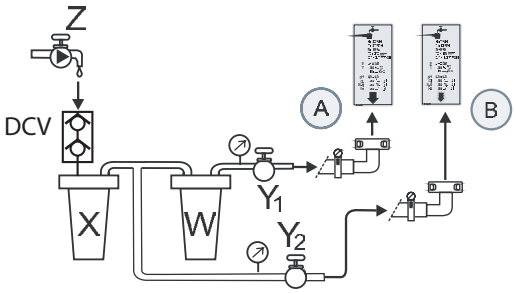


Item	Name	Explanation
A	Water connection for boiler and water injection	For water quality see *Water quality* on page 130
B	Water connection for cleaning system and recoil hand shower	For water quality see *Water quality* on page 130
C	Water distributor	-
Z	Drinking-water supply	-
X	0.08 mm sediment 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 where there is an NSF requirement, otherwise optional)	The equipment must be installed with adequate backflow protection to comply with applicable federal, state, and local codes.
DCV	Double check valve	Australian regulations for sanitary installations require this component to be fitted in front of any installed filtration or treatment devices.

Connection diagram with water treatment

Connection diagram	Connections on table-top units	Connections on floor-standing units
		

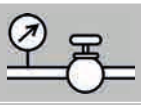
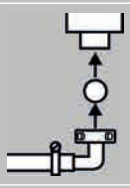
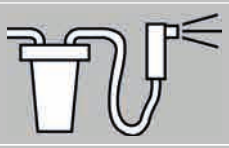
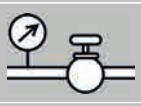
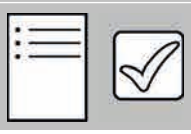
Australia / New Zealand:



Item	Name	Explanation
A	Water connection for boiler and water injection	For water quality see *Water quality* on page 130
B	Water connection for cleaning system and recoil hand shower	For water quality see *Water quality* on page 130
Z	Drinking-water supply	-
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	Recommended: Partial demineralization cartridge
Y	Shut-off device	Water tap
V	Suitable backflow preventer (only required for steam injectors where there is an NSF requirement, otherwise optional)	The equipment must be installed with adequate backflow protection to comply with applicable federal, state, and local codes.
DCV	Double check valve	Australian regulations for sanitary installations require this component to be fitted in front of any installed filtration or treatment devices.

Installing the water supply

1.		Flush through the customer's water supply pipe.
2.		Fit the sediment filter (X) and, if necessary, a water treatment system (W).

3.		Fit a separate shut-off device for each appliance.
4.		If a backflow preventer or check valve are required (see connection diagram), fit the relevant device in the water supply line.
5.		Connect the appliance as shown in the connection plan.
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 equipment if applicable.

6.3.3 Testing 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 listed under the '*Water quality* on page 131' heading in the *'Technical data'* on page 111 chapter.

6.3.4 Drain connection

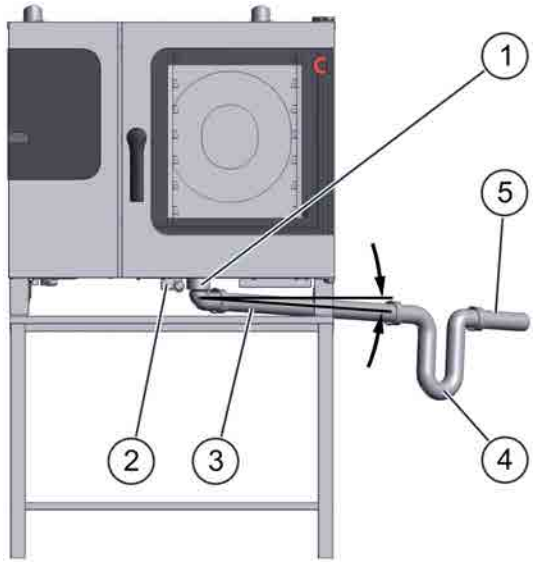
⚠ Rules for safe installation of the drain connection

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 waste-water pipe.
- The slope of the wastewater pipe must equal min. 3.5% (2°).
- If more than one appliance is connected to one wastewater 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. A permanent connection is recommended; alternatively an open funnel waste trap can be installed. For table-top units with a wheeled platform, the waste-water pipe in a permanently connected system must be disconnected before the appliance can be moved with the platform.

Connection diagram (table-top units)

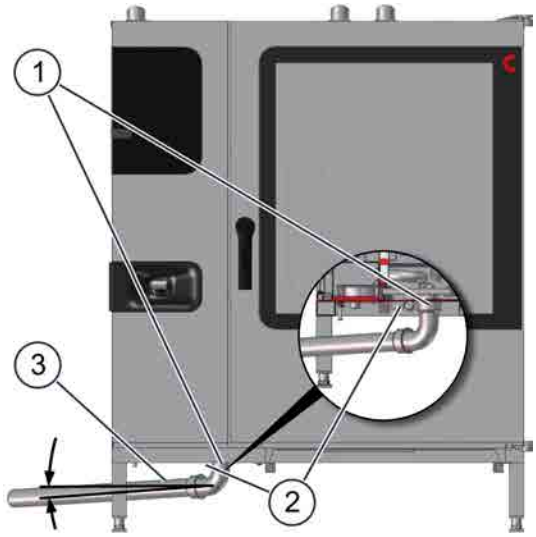
The following illustration shows the wastewater connections to a size 6.10 combi steamer as an example of all table-top models:



Item	Name	Function
1	Appliance drain	On the appliance floor, connection point C, see '*Connection diagrams* on page 134'
2	Safety overflow	▪ On the appliance floor, connection point M, see '*Connection diagrams* on page 134' ▪ Used to drain away water in the event of a fault (blockage).
3	Drain pipe DN 50	▪ Minimum internal diameter = 46 mm ▪ Slope min. 3.5% (2°)
4	Waste trap / Funnel waste trap	Recommended for blocking smells
5	Drain pipe DN 50	▪ Minimum internal diameter = 46 mm ▪ Slope min. 3.5% (2°)

Connection diagram (floor-standing units)

The following illustration shows the wastewater connections to a size 12.20 combi steamer as an example of all floor-standing models:



Item	Name	Function
1	Appliance drain	On the appliance floor, connection point C, see '*Connection diagrams* on page 134'
2	Safety overflow	▪ On the appliance floor, connection point M, see '*Connection diagrams* on page 134' ▪ Used to drain away water in the event of a fault (blockage).
3	Drain pipe DN 50	▪ Minimum internal diameter = 46 mm ▪ Min. slope min. 3.5% (2°) Drain options: ▪ Fixed connection ▪ Open tank ▪ Gully

Connecting the appliance to the drain

Connect the appliance as shown in the connection diagram. For table-top units, use the flat bend supplied.

6.4 Installing the fully automatic oven cleaning system

Purpose of this section

This section shows you how to install the ConvoClean / ConvoClean+ fully automatic oven cleaning system. This section is intended for a qualified member of staff from an authorized service company.

Contents

This section contains the following topics:

6.4.1 Safe working during the installation

For your safety

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions during installation* on page 30'.

Eligibility of personnel for installing the fully automatic oven cleaning system

Only qualified personnel from an authorized service company are permitted to install and connect the fully automatic oven cleaning system for the appliance.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

Contact with cleaning agents

⚠WARNING

Risk of chemical burns or irritation to skin, eyes and respiratory system.

Direct contact with the ConvoClean new (S) cleaning agent or ConvoCare (S) rinse aid will irritate the skin, eyes and respiratory system. Direct contact with the ConvoClean forte (S) cleaning agent will result in chemical burns to the skin, eyes and respiratory organs.

- ▷ Do not inhale the vapours or spray mist from the cleaning agent and rinse aid.
- ▷ Do not let the cleaning agent or rinse aid come into contact with skin, eyes or mucous membranes.
- ▷ Follow the guidance on the cleaning-fluid labels and in the relevant data sheets when using the cleaning fluids.
- ▷ Wear personal protective equipment.

6.4.2 Layout of the fully automatic oven cleaning system

Cleaning agent and rinse aid

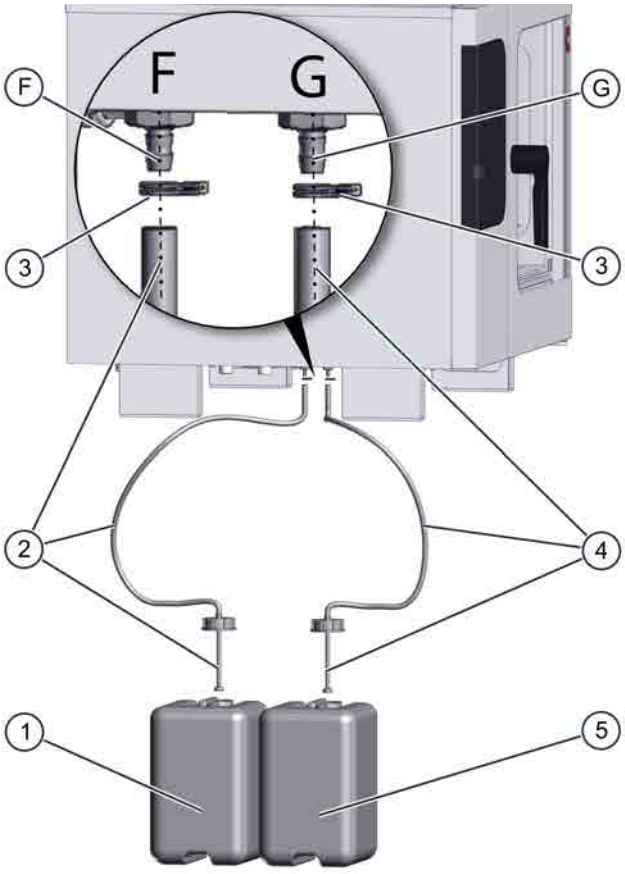
Use only the cleaning fluids specified here to clean the combi steamer.

NOTICE Damage caused as a result of improper use of cleaning fluids 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 cannisters



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)

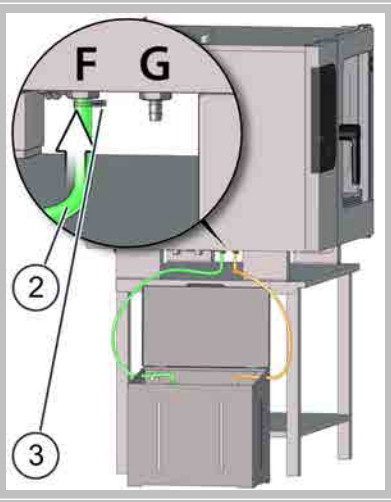
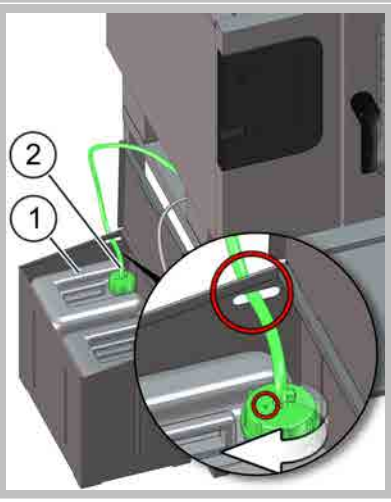
Installation location for the cleaning-agent and rinse-aid canisters

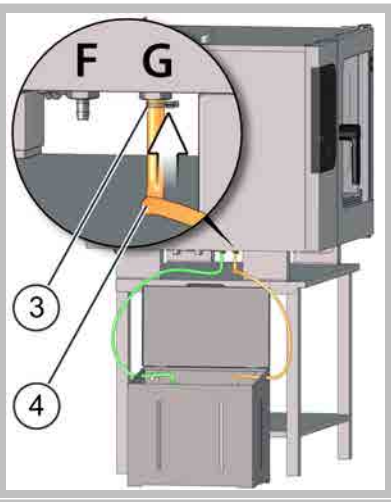
Install the canisters as follows:

- The canisters should be located for easy access beside the appliance on a flat surface.
- The canisters must not sit above the level of the surface on which the appliance stands.
- The level of the surface on which the canister sits must not lie more than 1 meter below the tube connections on the appliance.

6.4.3 Connecting the fully automatic oven cleaning system

Connecting the fully automatic oven cleaning system to canisters

1.		Mix the supplied ConvoCare Kconcentrate 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 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 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.

7 Preparing the appliance for first-time use

Purpose of this chapter

This chapter explains how to prepare your combi steamer for use. This chapter is intended for a qualified member of staff from an authorized service company.

Contents

This chapter contains the following topics:

7.1 Safe working when preparing the appliance for use

For your safety when preparing the appliance for use

Before starting work, make sure that you are familiar with the hazards described under *'Hazards and safety precautions when preparing appliance for use'* on page 32 and in the chapter 'For your safety' in the user manual.

Eligibility of personnel preparing the appliance for first-time use and taking it out of operation

Work performed on the appliance while preparing it for use is performed in special operating circumstances (e.g. with safety covers removed) or includes activities that require personnel to have relevant qualifications and appliance-specific knowledge that exceed the requirements for operating personnel.

The following requirements must be met by personnel:

- They are qualified employees of an authorized service company.
- Personnel have relevant training as a service engineer.
- Personnel have training specific to the appliance.
- In particular, personnel must be able to assess whether the electrical, gas and water supplies and the wastewater system have been connected to the appliance correctly.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

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 supply company and if necessary the fire brigade using a phone located outside the hazardous area.

Rules for safe operation of table-top units

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

- The air vent and exhaust outlet 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 in accordance with the regulations specified in *Placing the cooking containers in appliances of size X.10 and X.20'* in the user manual.
- The suction panel must be locked properly in place.

Additional rules for safe operation of table-top units on a mobile platform

To avoid hazards, the following rules must be observed when operating appliances positioned on a wheeled platform:

- The parking brakes on the front wheels must always be engaged when operating the appliances.
- Check that the wheel brakes are on before operation each day.

Rules for safe operation of floor-standing units

To avoid hazards, the following rules must be observed during operation:
- The air vent and exhaust outlet on the top of the appliance, and the ventilation holes in the appliance base must not be covered, obstructed or blocked.
- The food containers must be inserted correctly in accordance with the regulations specified in *Placing the cooking containers in appliances of size X.10 and X.20'* in the user manual.
- The suction panel must be locked properly in place.

Live parts

⚠DANGER

Risk of electric shock from live parts and loose cables

When the safety cover is open, there is a risk of electric shock from touching live parts.

▷ Make sure that any work on the electrical system is performed solely by a qualified electrician from an authorized service company.
▷ Before removing the safety covers:
  - 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.
  - Make sure that the appliance is de-energized.
▷ Make sure that the electrical connections are intact and connected securely before putting the appliance into use.
▷ Before preparing the appliance for use, make sure that the appliance, including all metallic accessories, is connected to an equipotential bonding system.

Escaping gas

⚠DANGER

Risk of explosion from escaping gas

Escaping gas can ignite and cause an explosion.

▷ Never move the appliance during use
▷ For table-top units on a wheeled platform with flexible supply pipe, in order to secure the appliance in place, make sure that the retaining device which restricts the range of movement of the platform plus appliance is connected.

Lack of oxygen

⚠DANGER

Risk of suffocation from lack of air suitable for breathing

Inadequate ventilation at the installation location can lead to suffocation while the appliance is running.

▷ Check the exhaust gas values and if necessary, get an authorized installation 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 installation engineer are met
▷ Do not obstruct lower area of appliance.
▷ Only operate the appliance in a draught-free environment

Hot surfaces

⚠WARNING

Risk of burns from high temperatures inside the cooking chamber and on the inside of the appliance door

You may get burnt if you touch any of the interior parts of the cooking chamber, the inside of the appliance door or any parts that are or were inside the oven during cooking.

- ▷ Wear personal protective equipment.

Hot steam / vapour

⚠WARNING

Risk of scalding from hot steam and vapour

Escaping hot steam and vapour can cause scalding to face, hands, feet and legs.

- ▷ When opening the appliance door, always use the ventilation position as specified in the instructions for safe opening, and never put your head inside the oven.
- ▷ When you are cooling the cooking chamber using the 'Cool-Down' function, step back from the appliance to avoid the hot steam and vapour escaping through the open appliance door.

Contact with cleaning agents

⚠WARNING

Risk of chemical burns or irritation to skin, eyes and respiratory system.

Direct contact with the ConvoClean new (S) cleaning agent or ConvoCare (S) rinse aid will irritate the skin, eyes and respiratory system. Direct contact with the ConvoClean forte (S) cleaning agent will result in chemical burns to the skin, eyes and respiratory organs.

- ▷ Do not inhale the vapours or spray mist from the cleaning agent and rinse aid.
- ▷ Do not let the cleaning agent or rinse aid come into contact with skin, eyes or mucous membranes.
- ▷ Do not spray cleaning agent or rinse aid into a cooking chamber that is at a temperature of higher than 60°C, because this will increase the caustic and irritating fumes given off by the cleaning agent.
- ▷ Do not open the appliance door during fully automatic oven cleaning using connected canisters.
- ▷ During fully automatic oven cleaning using single-measure dispensing, only open the appliance door after being prompted by the software
- ▷ Wear personal protective equipment.

7.2 Procedure for preparing the appliance for first-time use

Checks prior to preparing the appliance for first-time use

Before preparing the combi steamer for first-time use, use the checklist to make sure that all important requirements are met. The appliance must not be put into operation until all the specified requirements are met.

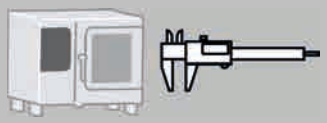
Checklist for moving, setting up and installing the appliance on page 180

- Protective films, cardboard packaging and transport securing devices etc. have been removed completely from the appliance.
- The appliance has 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.
- The appliance is installed in accordance with the Installation regulations.

Checklist for safety devices and warnings on page 181

- All safety devices are in their designated position, are working correctly and are secured properly in place.
- All warning signs are in their designated position.

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.		Check that the following are seated properly and in the correct position: ▪ Suction panel ▪ Racks (for table-top units) ▪ Loading trolley (for floor-standing units)
5.		Measure the door gap at the front of the appliance, as specified in *'Measuring appliance gaps'* on page 106: 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 service manual or contact the manufacturer.
6.		Switch on the combi steamer.
7.		Make the following settings ▪ Date ▪ Time ▪ Language

Put into operation

1.		Select the 'Combi-steam' cooking program: Set 150°C and 10 minutes.
2.		Check the following points: ▪ Is the oven light on? ▪ Is the fan running? ▪ Are there any leaks in the water supply and wastewater systems? ▪ Does the temperature rise inside the oven?
3.		Select the Steam cooking program: ▪ Set 100°C and 10 minutes.
4.		Check whether steam is being generated in the cooking chamber (open appliance door carefully).
5.		Only for Convotherm 4 injection appliances: Use the pressure regulator to adjust the pressure to give the correct reading at the pressure gage in the steam-generation water supply: ▪ Table-top units: [kPa] 100 (1 bar) ▪ Floor-standing units: [kPa] 150 (1.5 bar)
6.		Select ConvoClean / ConvoClean+ fully automatic oven cleaning: ▪ Select cleaning level 1 and start the cleaning process.
7.		Check the ConvoClean / ConvoClean+ fully automatic oven cleaning system: ▪ Check the supply of ConvoClean forte / new and ConvoCare.

Customer guidance and instruction.

Instruct the user regarding all safety-related functions and devices (see '*Checklist: customer guidance and instruction* on page 182'). Instruct the user in how to operate the appliance.

7.3 Measuring appliance gaps

Measuring appliance gaps

The figure shows a size 12.20 combi steamer as an example for all appliance sizes.
The measured widths of the appliance gaps must lie within the following tolerance ranges:

Illustration	Name	Measurement condition	Tolerance range	
			Table-top units	Floor-standing units
	Door gap at the front of the appliance	The appliance door is closed	8 ± 1 mm	10 ± 1 mm

8 Taking the appliance out of operation and disposal

Purpose of this chapter

This chapter explains how to take your combi steamer out of operation and how to dispose of it properly. This chapter is intended for a qualified member of staff from an authorized service company.

Contents

This chapter contains the following topics:

8.1 Safe working when taking the appliance out of operation

For your safety when taking the appliance out of operation

Before starting work, familiarize yourself with the hazards described in '*Hazards and safety precautions when taking the appliance out of service* on page 35'.

Eligibility of personnel for taking the appliance out of operation

Work performed on the appliance while taking it out of service is performed in special operating circumstances (e.g. with safety covers removed) or includes activities that require personnel to have relevant qualifications and appliance-specific knowledge that exceed the requirements for operating personnel.

The following requirements must be met by personnel:

- They are qualified employees of an authorized service company.
- Personnel have relevant training as a service engineer.
- Personnel have training specific to the appliance.
- In particular, personnel must be able to assess whether the electrical, gas and water supplies and the wastewater system have been connected to the appliance correctly.

Work on the gas installation must be performed solely by qualified gas fitters with appliance-specific training who have been authorized by the local gas supply company.

Personal protective equipment

Wear the personal protective equipment specified in the section '*Personal protective equipment* on page 43' of the 'For your safety' chapter for the relevant tasks.

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 supply company and if necessary the fire brigade using a phone located outside the hazardous area.

Rules for safe and responsible working when taking the appliance out of operation

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 steamer must be closed and the door handle removed before disposing of the appliance.
- The cleaning fluids must be disposed of in accordance with the instructions on the canisters in order to avoid damage to the environment.

Live parts

⚠DANGER

Risk of electric shock from live parts and loose cables

When the safety cover is open, there is a risk of electric shock from touching live parts.

- ▷ Make sure that any work on the electrical system is performed solely by a qualified electrician from an authorized service company.
- ▷ Before removing the safety covers:
  - 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.
  - Make sure that the appliance is de-energized.

Escaping gas

⚠DANGER

Risk of explosion from escaping gas

Escaping gas can ignite and cause an explosion.

- ▷ Make certain that the gas supply is disconnected before starting work on the gas installation.

Moving heavy loads

⚠WARNING

Risk of injury from lifting incorrectly

When lifting the appliance, the weight of the appliance may lead to injuries, especially in the area of the torso.

- ▷ Use a fork-lift truck/pallet truck to move the appliance.
- ▷ When lifting the appliance, use enough people for the weight of the appliance (guide value: 15 to 55 kg max., depending on age and gender). Observe the local occupational safety regulations.
- ▷ Wear personal protective equipment.

Unsuitable supporting surface

⚠WARNING

Risk of crushing if the appliance tips over or falls off

Body parts can be crushed if the appliance tips over or falls off.

- ▷ Make sure that the appliance is never placed on an unsuitable supporting surface.

Contact with cleaning agents

⚠WARNING

Risk of chemical burns or irritation to skin, eyes and respiratory system.

Direct contact with the ConvoClean new (S) cleaning agent or ConvoCare (S) rinse aid will irritate the skin, eyes and respiratory system. Direct contact with the ConvoClean forte (S) cleaning agent will result in chemical burns to the skin, eyes and respiratory organs.

- ▷ Do not inhale the vapours or spray mist from the cleaning agent and rinse aid.
- ▷ Do not let the cleaning agent or rinse aid come into contact with skin, eyes or mucous membranes.
- ▷ Follow the guidance on the cleaning-fluid labels and in the relevant data sheets when using the cleaning fluids.
- ▷ Wear personal protective equipment.

8.2 Taking the appliance out of operation and disposal

Requirements

Before taking the appliance out of service, check the following points:
- The appliance is de-energized.
- The gas supply is shut off.
- The water supply is shut off.

Taking the appliance out of operation

To take your appliance out of operation, follow the steps for setting up and installing your appliance in the reverse order (see the chapters *Installation*, on page 69*Moving the appliance* on page 44 and *Setting up the appliance* on page 47).

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

The following tasks must be performed correctly to take the appliance out of operation:
- Disconnecting the water supply 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-fluid containers

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

Purpose of this chapter

This chapter contains the technical data for your combi steamer.

Contents

This chapter contains the following topics:

9.1 Dimensions and weights

Dimensions, Convotherm 4 EB/ES

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Appliance **including** packaging								
Width	[mm]	1110	1345	1110	1345	1410	1165	1410
Height	[mm]	1010	1010	1280	1280	1615	2150	2150
Depth	[mm]	940	1140	940	1140	1170	970	1170
Appliance **excluding** packaging								
Width for appliance with right-hinged appliance door	[mm]	875	1120	875	1120	1135	890	1135
Width for appliances with disappearing door	[mm]	922	1167	922	1167	1182	937	1182
Height	[mm]	786	786	1058	1058	1406	1942	1942
Depth with appliance door closed	[mm]	792	992	792	992	1020	820	1020
Safety clearances								
Rear	[mm]	50	50	50	50	50	50	50
Right, for appliance with right-hinged appliance door	[mm]	50	50	50	50	50	50	50
Right, for appliances with disappearing door	[mm]	50	50	50	50	50	50	50
Left (larger gap recommended for servicing)	[mm]	50	50	50	50	50	50	50
Top (for ventilation)	[mm]	500	500	500	500	500	500	500

Dimensions, Convotherm 4 GB/GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Appliance **including** packaging								
Width	[mm]	1110	1345	1110	1345	1410	1165	1410
Height	[mm]	1010	1010	1280	1280	1615	2150	2150
Depth	[mm]	940	1140	940	1140	1170	970	1170
Appliance **excluding** packaging								
Width for appliance with right-hinged appliance door	[mm]	875	1120	875	1120	1135	890	1135
Width for appliances with disappearing door	[mm]	922	1167	922	1167	1182	937	1182
Height	[mm]	786	786	1058	1058	1406	1942	1942
Depth with appliance door closed	[mm]	792	992	792	992	1020	820	1020
Safety clearances								
Rear	[mm]	50	50	50	50	50	50	50
Right, for appliance with right-hinged appliance door	[mm]	50	50	50	50	50	50	50
Right, for appliances with disappearing door	[mm]	50	50	50	50	50	50	50
Left (larger gap recommended for servicing)	[mm]	50	50	50	50	50	50	50
Top (for ventilation)	[mm]	1000	1000	1000	1000	1000	1000	1000

Weights, Convotherm 4 EB

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Weight excluding packaging								
excluding ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	115	170	135	184	250	265	349
- Disappearing door	[kg]	123	178	145	194	265	285	369
including ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	121	176	141	190	256	272	356
- Disappearing door	[kg]	129	160	151	200	271	292	376
including ConvoClean / ConvoClean+, including ConvoSmoker								
- Right-hinged door	[kg]	126	181	146	195	-	-	-
- Disappearing door	[kg]	134	189	156	205	-	-	-
Weight of packaging								
Weight of packaging	[kg]	25	30	30	35	45	40	48

Weights, Convotherm 4 ES

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Weight excluding packaging								
excluding ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	105	158	123	169	235	250	331
- Disappearing door	[kg]	113	166	133	179	250	270	351
including ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	111	164	129	175	241	257	340
- Disappearing door	[kg]	125	172	139	185	256	277	359
including ConvoClean / ConvoClean+, including ConvoSmoker								
- Right-hinged door	[kg]	116	169	134	180	-	-	-
- Disappearing door	[kg]	124	177	144	190	-	-	-
Weight of packaging								
Weight of packaging	[kg]	25	30	30	35	45	40	48

Weights, Convotherm 4 GB

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Weight excluding packaging								
excluding ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	130	190	155	214	280	295	379
- Disappearing door	[kg]	138	198	165	224	295	315	399
including ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	136	196	161	220	286	302	386
- Disappearing door	[kg]	144	180	171	230	301	322	406
including ConvoClean / ConvoClean+, including ConvoSmoker								
- Right-hinged door	[kg]	-	-	-	-	-	-	-
- Disappearing door	[kg]	-	-	-	-	-	-	-
Weight of packaging								
Weight of packaging	[kg]	25	30	30	35	45	40	48

Weights, Convotherm 4 GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Weight excluding packaging								
excluding ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	113	168	133	184	250	265	346
- Disappearing door	[kg]	121	176	143	194	265	285	366
including ConvoClean / ConvoClean+, excluding ConvoSmoker								
- Right-hinged door	[kg]	119	174	139	190	256	272	355
- Disappearing door	[kg]	133	182	149	200	271	292	374
including ConvoClean / ConvoClean+, including ConvoSmoker								
- Right-hinged door	[kg]	-	-	-	-	-	-	-
- Disappearing door	[kg]	-	-	-	-	-	-	-
Weight of packaging								
Weight of packaging	[kg]	25	30	30	35	45	40	48

9.2 Maximum permissible loading weight

Convotherm 4 EB/ES/GB/GS

The total weight of items placed on the shelves must not exceed the maximum permissible loading weight of the combi steamer:

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Maximum load								
Per combi steamer	[kg]	30	60	50	100	120	100	180
Per shelf	[kg]	15	15	15	15	15	15	15

9.3 Electrical supply

Convotherm 4 EB (single-phase FC)

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
3N~ 400V 50/60Hz (3/N/PE)								
Rated power consumption	[kW]	11.0	19.5	19.5	33.7	33.7	38.9	67.3
Convection power	[kW]	10.6	19.1	19.1	33.3	33.3	38.1	66.5
Steam power	[kW]	9.1	18.1	18.1	27.2	31.6	31.6	40.2
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	15.9	28.1	28.1	48.7	48.7	56.2	97.3
Fuse	[A]	16	35	35	50	50	63	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	5G4	5G6	5G6	5G16	5G16	5G16	5G35
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 230V 50/60Hz (3/PE)								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.2	66.4
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.0
Steam power	[kW]	9.0	18.0	18.0	27.0	31.3	31.3	39.9
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	27.4	48.5	48.5	84.0	84.0	96.0	166.9
Fuse	[A]	35	50	50	100	100	100	200
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G6	4G16	4G16	4G35	4G35	4G35	4G70
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 200V 50/60Hz (3/PE)								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.2	66.4
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.0
Steam power	[kW]	9.0	18.0	18.0	27.0	31.3	31.3	39.9
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	31.5	55.8	55.8	96.6	96.6	110.4	191.9
Fuse	[A]	35	63	63	100	100	125	200
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G6	4G16	4G16	4G35	4G35	4G50	4G95
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F

Convotherm 4 EB (three-phase FC)

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
3~ 400V 50/60 Hz								
Rated power consumption	[kW]	11.0	19.5	19.5	33.7	33.7	38.9	67.3
Convection power	[kW]	10.6	19.1	19.1	33.3	33.3	38.1	66.5

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Steam power	[kW]	9.1	18.1	18.1	27.2	31.6	31.6	40.2
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	15.9	28.1	28.1	48.7	48.7	56.2	97.3
Fuse	[A]	16	35	35	50	50	63	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	5G4	5G6	5G6	5G16	5G16	5G16	5G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 440V 60 Hz								
Rated power consumption	[kW]	9.2	16.3	16.3	28.2	28.2	32.6	56.3
Convection power	[kW]	8.8	15.9	15.9	27.8	27.8	31.8	55.5
Steam power	[kW]	7.6	15.1	15.1	22.7	26.3	26.3	33.6
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	12.1	21.4	21.4	37.0	37.0	42.8	73.9
Fuse	[A]	16	25	25	50	50	50	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G4	4G6	4G6	4G16	4G16	4G16	4G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 480V 60 Hz								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.6	66.8
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.1
Steam power	[kW]	9.0	18.0	18.0	27.0	31.3	31.3	39.9
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	13.1	23.3	23.3	40.3	40.3	46.5	80.5
Fuse	[A]	16	25	25	50	50	50	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G4	4G6	4G6	4G16	4G16	4G16	4G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F

Convotherm 4 ES (single-phase FC)

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
3N~ 400V 50/60Hz (3/N/PE)								
Rated power consumption	[kW]	11.0	19.5	19.5	33.7	33.7	38.9	67.3
Convection power	[kW]	10.6	19.1	19.1	33.3	33.3	38.1	66.5
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	15.9	28.1	28.1	48.7	48.7	56.2	97.3
Fuse	[A]	16	35	35	50	50	63	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	5G4	5G6	5G6	5G16	5G16	5G16	5G35
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 230V 50/60Hz (3/PE)								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.2	66.4

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.4
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	27.4	48.5	48.5	84.0	84.0	96.0	166.9
Fuse	[A]	35	50	50	100	100	100	200
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G6	4G16	4G16	4G35	4G35	4G35	4G70
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 200V 50/60Hz (3/PE)								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.2	66.4
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.0
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	31.5	55.8	55.8	96.6	96.6	110.4	191.9
Fuse	[A]	35	63	63	100	100	125	200
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G6	4G16	4G16	4G35	4G35	4G50	4G95
Recommended residual-current device	Type	A	A	A	A	A	A	A
Optional residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F

Convotherm 4 ES (three-phase FC)

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
3~ 400V 50/60 Hz								
Rated power consumption	[kW]	11.0	19.5	19.5	33.7	33.7	38.9	67.3
Convection power	[kW]	10.6	19.1	19.1	33.3	33.3	38.1	66.5
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	15.9	28.1	28.1	48.7	48.7	56.2	97.3
Fuse	[A]	16	35	35	50	50	63	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	5G4	5G6	5G6	5G16	5G16	5G16	5G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 440V 60 Hz								
Rated power consumption	[kW]	9.2	16.3	16.3	28.2	28.2	32.6	56.3
Convection power	[kW]	8.8	15.9	15.9	27.8	27.8	31.8	55.5
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	12.1	21.4	21.4	37.0	37.0	42.8	73.9
Fuse	[A]	16	25	25	50	50	50	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G4	4G6	4G6	4G16	4G16	4G16	4G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F
3~ 480V 60 Hz								
Rated power consumption	[kW]	10.9	19.3	19.3	33.4	33.4	38.6	66.8
Convection power	[kW]	10.5	18.9	18.9	33.0	33.0	37.8	66.1

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	13.1	23.3	23.3	40.3	40.3	46.5	80.5
Fuse	[A]	16	25	25	50	50	50	100
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length.	[mm^2]	4G4	4G6	4G6	4G16	4G16	4G16	4G35
Recommended residual-current device	Type	B/F	B/F	B/F	B/F	B/F	B/F	B/F

Convotherm 4 GB

Electrical connected load ratings

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
1N~ 100V 50/60 Hz								
Rated power consumption	[kW]	0.6	0.6	0.6	0.6	0.6	1.1	1.1
Convection power	[kW]	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Steam power	[kW]	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	6.3	6.3	6.3	6.3	6.3	10.9	10.9
Fuse	[A]	16	16	16	16	16	16	16
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	3G2.5	3G2.5	3G2.5
1N~ 230V 50/60 Hz								
Rated power consumption	[kW]	2.7	2.7	2.7	2.7	2.7	4.7	4.7
Convection power	[kW]	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Steam power	[kW]	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	2.7	2.7	2.7	2.7	2.7	4.7	4.7
Fuse	[A]	16	16	16	16	16	16	16
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	3G2.5	3G2.5	3G2.5

Convotherm 4 GS

Electrical connected load ratings

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
1N~ 100V 50/60 Hz								
Rated power consumption	[kW]	0.5	0.5	0.5	0.5	0.5	1.0	1.0
Convection power	[kW]	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	5.2	5.2	5.2	5.2	5.2	9.8	9.8
Fuse	[A]	16	16	16	16	16	16	16
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	3G2.5	3G2.5	3G2.5

Electrical connected load ratings								
1N~ 230V 50/60 Hz								
Rated power consumption	[kW]	0.5	0.5	0.5	0.5	0.5	1.0	1.0
Convection power	[kW]	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Motor power	[kW]	0.35	0.35	0.35	0.35	0.35	0.7	0.7
Rated current	[A]	2.3	2.3	2.3	2.3	2.3	4.3	4.3
Fuse	[A]	16	16	16	16	16	16	16
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	3G2.5	3G2.5	3G2.5

9.4 Gas supply

Convotherm 4 GB/GS

	6.10	6.20	10.10	10.20	20.10	12.20	20.20
Fuels	Natural gas, liquid gas						
Exhaust gas duct	Air conditioning system with safety shutdown						
Connection to gas supply	R 3/4"						

9.5 Gas consumption

Convotherm 4 GB/GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Natural gas 2H (E)	[m^3/h]	1.2	2.1	2.1	3.3	3.3	4.2	6.6
Natural gas 2L (LL)	[m^3/h]	1.4	2.5	2.5	3.8	3.8	4.9	7.6
Propane 3P / Liquid gas 3B/P*	[kg/h]	0.9	1.7	1.7	2.4	2.4	3.4	4.8

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

9.6 Summary of gas data

Convotherm 4 GB/GS

The table below lists the possible gas data (as per CE) at 15°C and 1013 mbar dry:

Gas type and symbol		Natural gas 2H (E)	Natural gas 2L (LL)	Liquefied gas 3B/P	Propane 3P
Supply flow pressure	[mbar]	17 - 25	18 - 30	20 - 57.5	25 - 57.5
Wobbe index					
Lower W_u	[MJ/m^3]	45.7	37.4	80.6	74.8
Upper W_o	[MJ/m^3]	50.7	41.5	87.3	81.2
Thermal value					
H_i	[MJ/m^3]	34	29.3	116.1	88
H_i	[MJ/kg]	-	-	45.7	46.3
Calorific value					
H_s	[MJ/m^3]	37.8	32.5	125.8	95.7
H_s	[MJ/kg]	-	-	49.5	50.4

9.7 Exhaust gas values

Convotherm 4 GB/GS

		Natural gas 2H (E)	Natural gas 2L (LL)	Propane 3P	Liquefied gas 3B/P
CO_2	[%]	9.3-9.5	9.1-9.3	10.8-11.2	12.8-13.3
CO	[ppm]	< 500	< 500	< 500	< 500

9.8 Exhaust gas output rate

Convotherm 4 GB/GS

		6.10	6.20	10.10	10.20	20.10	12.20	20.20
Air consumption for combustion	[m3/h]	24	44	44	68	68	88	136
Exhaust gas output rate	[m3/h]	51	92	92	143	143	185	286

9.9 Heat output

Convotherm 4 GB/GS

Heat output (referred to heating value Hi)

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Natural gas 2H (E)								
Convection burner	[kW]	11	21	21	31	31	42	62
Boiler burner (for GB)	[kW]	11	19	19	31	31	31	31
Natural gas 2L (LL)								
Convection burner	[kW]	10.5	20	20	30	30	40	60
Boiler burner (for GB)	[kW]	10.5	18	18	30	30	30	30
Propane 3P*								
Convection burner	[kW]	11.5	21	22	31	31	44	62
Boiler burner (for GB)	[kW]	11.5	19	20	31	31	31	31

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

9.10 Heat output

Convotherm 4 EB/ES

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Latent heat	[kJ/h]	2100	3500	3500	6400	6900	6900	11000
	[kW]	0.58	0.97	0.97	1.78	1.92	1.92	3.06
Sensible heat	[kJ/h]	2500	4500	4500	7800	7800	8900	14100
	[kW]	0.69	1.25	1.25	2.17	2.17	2.47	3.92

Convotherm 4 GB/GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Latent heat	[kJ/h]	2100	3500	3500	7100	11000	7100	12200
	[kW]	0.58	0.97	0.97	1.97	3.06	1.97	3.39
Sensible heat	[kJ/h]	2500	4100	4100	7200	8200	8200	15400
	[kW]	0.69	1.14	1.14	2.00	2.28	2.28	4.28

9.11 Water connection

Convotherm 4 EB ES GB GS

Water supply (cold only)		
Water supply		2 x G 3/4" permanent connection, optionally including connecting pipe (min. DN13 / 1/2")
Flow pressure	[kPa]	150 - 600 (1.5 - 6 bar)
Pressure gage in the water supply		
6.10, 6.20, 10.10, 10.20	[kPa]	100 (1 bar)
12.20, 20.10, 20.20	[kPa]	150 (1.5 bar)
Appliance drain		
Model 6.10, 6.20, 10.10, 10.20		Permanent connection (recommended) or funnel waste trap
Model 12.20, 20.10, 20.20		Permanent connection (recommended) or open tank or channel/gully
Type	DN	50

9.12 Boiler

Convotherm 4 EB/GB

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Steam output	[l/h]	14.4	28.7	28.7	42.1	49.9	43.0	63.6
Contents	[l]	3.8	6.0	6.0	8.0	10.9	8.2	10.9

9.13 Water quality

Convotherm 4 EB/GB

Water hardness for both water-supply connections: Cleaning, recoil hand shower (A) and boiler (B)		
Water quality		▪ Drinking water ▪ Hard water
General hardness (GH)		
- in German degrees of hardness	[°dH]	4 - 20
- in French degrees of hardness	[TH]	7 - 35
- in English degrees of hardness	[°e]	5 - 25
- in ppm $CaCO_3$	[ppm]	70 - 360
- in mmol/l alkaline earth ions	[mmol/l]	0.7 - 3.6
Properties		
Temperature	[°C]	max. 40
Electrical conductivity	[µS/cm]	min. 20
pH		6.5 - 8.5
Cl^-	[mg/l]	max. 60
Cl_2	[mg/l]	max. 0.2
SO_4^{2-}	[mg/l]	max. 150
Fe	[mg/l]	max. 0.1

Convotherm 4 ES/GS

Water hardness for water connection (A) for water injection		
Water quality		▪ Drinking water ▪ Soft water
General hardness (GH)		
- in German degrees of hardness	[°dH]	4 - 7
- in French degrees of hardness	[TH]	7 - 13
- in English degrees of hardness	[°e]	5 - 9
- in ppm $CaCO_3$	[ppm]	70 - 125
- in mmol/l alkaline earth ions	[mmol/l]	0.7 - 1.3
Water hardness for water connection (B) for cleaning system, recoil hand shower		
Water quality		▪ Drinking water ▪ Hard water
General hardness (GH)		
- in German degrees of hardness	[°dH]	4 - 20
- in French degrees of hardness	[TH]	7 - 35
- in English degrees of hardness	[°e]	5 - 25
- in ppm $CaCO_3$	[ppm]	70 - 360
- in mmol/l alkaline earth ions	[mmol/l]	0.7 - 3.6
Properties		
Temperature	[°C]	max. 40
Electrical conductivity	[µS/cm]	min. 20
pH		6.5 - 8.5
Cl^-	[mg/l]	max. 60
Cl_2	[mg/l]	max. 0.2
SO_4^{2-}	[mg/l]	max. 150
Fe	[mg/l]	max. 0.1

9.14 Water consumption, cooking

Convotherm 4 EB/GB

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Hard water and soft water								
Average consumption without cleaning	[l/h]	3.0	7.2	6.0	8.8	10.5	9.9	13.4
Maximum possible water flow rate	[l/min]	15	15	15	15	15	15	15

Convotherm 4 ES/GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Hard water and soft water								
Average consumption without cleaning	[l/h]	3.5	7.6	6.3	11.1	13.3	12.2	17.7
Maximum possible water flow rate	[l/min]	15	15	15	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	8.8	8.1	11.8
Maximum possible water flow rate	[l/min]	0.6	0.6	0.6	0.6	0.6	0.6	0.6

9.15 Water consumption, cooking and cleaning

Convotherm 4 EB/GB

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Hard water and soft water								
Average water consumption including cleaning process	[l/h]	6.8	11.0	9.8	12.6	14.2	13.7	17.1

Convotherm 4 ES/GS

		6.10	6.20	10.10	10.20	12.20	20.10	20.20
Hard water and soft water								
Average water consumption including cleaning process	[l/h]	7.3	11.3	10.1	14.8	17.0	15.9	21.4

10 Dimensional drawings and connection points

Purpose of this chapter

This chapter contains the dimensional drawings and connection points for your combi steamer.

Contents

This chapter contains the following topics:

10.1 Connection diagrams for Convotherm 4 electrical appliances

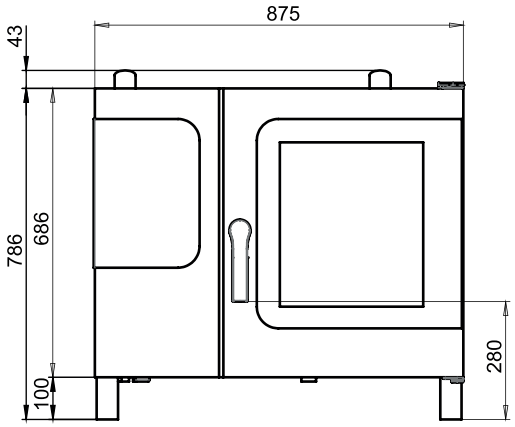
Contents

This section contains the following topics:

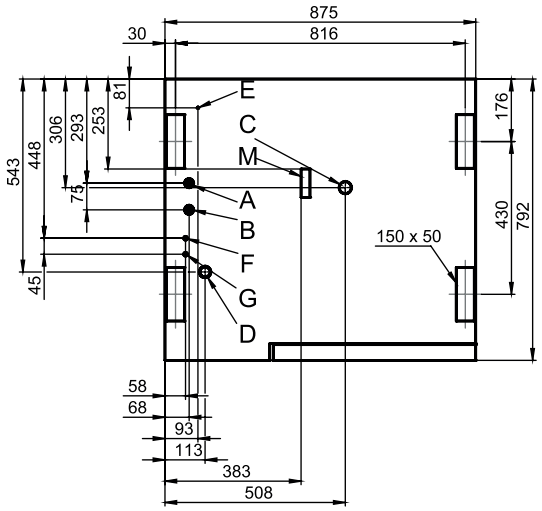
10.1.1 Convotherm 4 6.10 electrical appliance

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

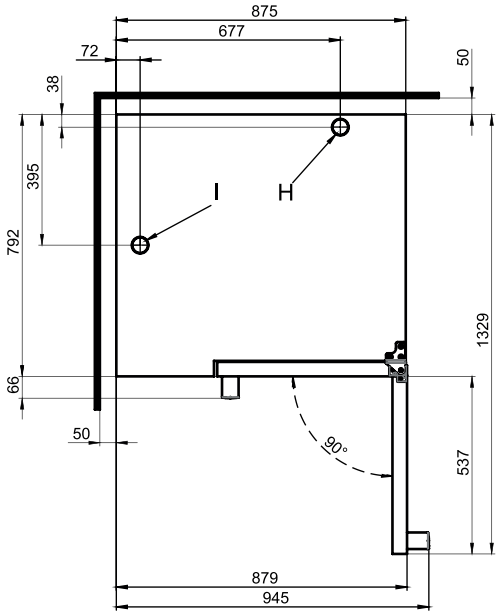
Front view



Connection positions in appliance floor



View from above with wall clearances

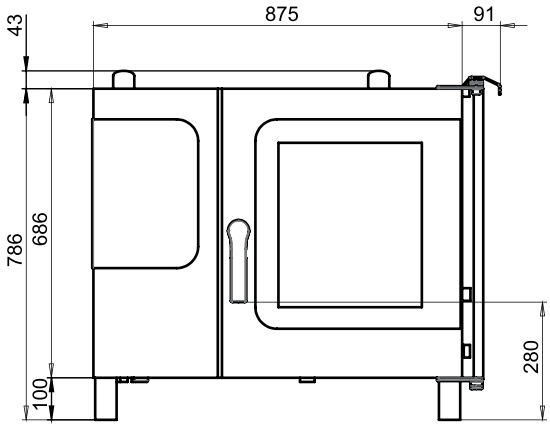


Meaning of labelled elements

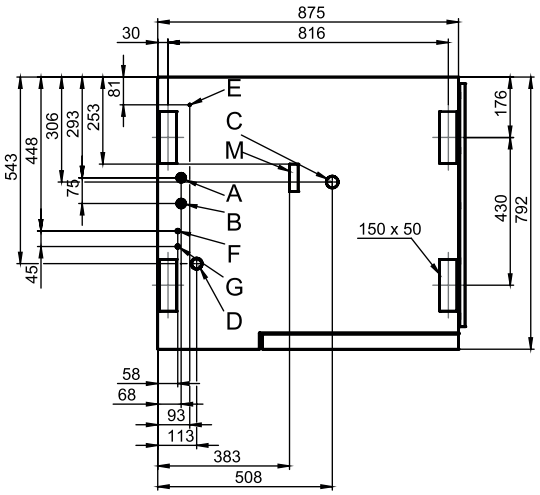
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent ∅ 50 [mm]
- I Ventilation port ∅ 50 [mm]
- M Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.10 EB (disappearing door)

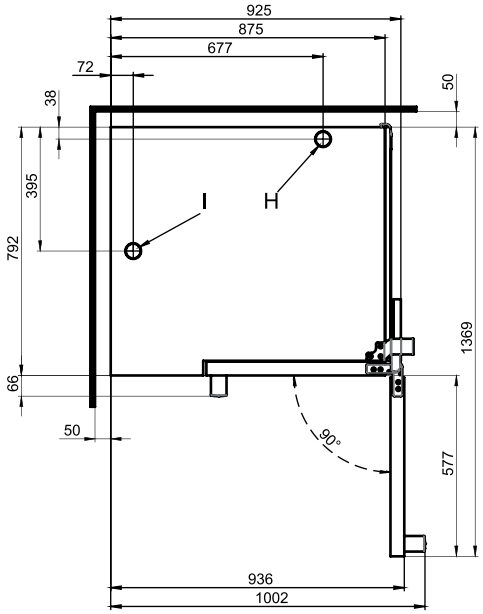
Front view



Connection positions in appliance floor



View from above with wall clearances



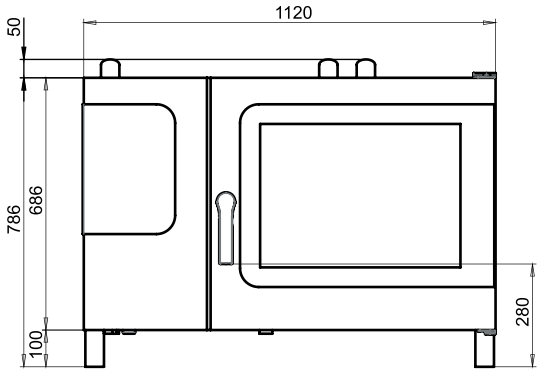
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection D50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

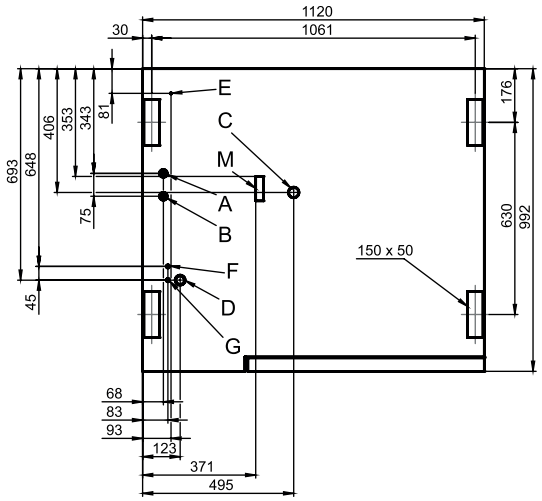
10.1.2 Convotherm 4 6.20 electrical appliance

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

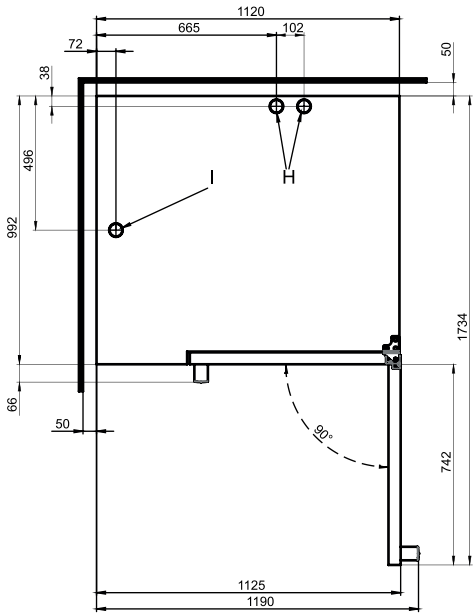
Front view



Connection positions in appliance floor



View from above with wall clearances

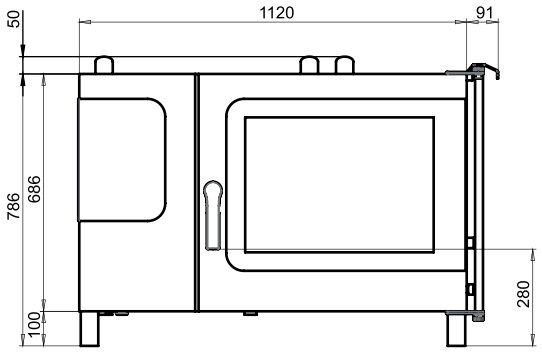


Meaning of labelled elements

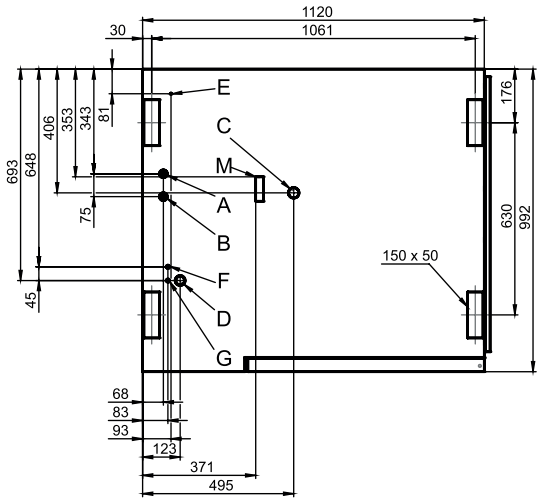
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.20 EB (disappearing door)

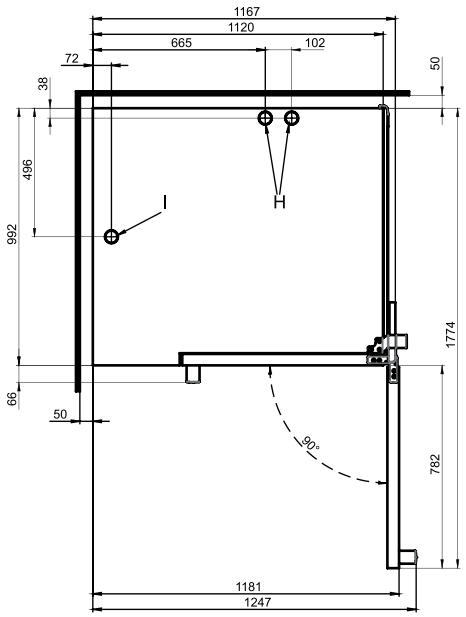
Front view



Connection positions in appliance floor



View from above with wall clearances



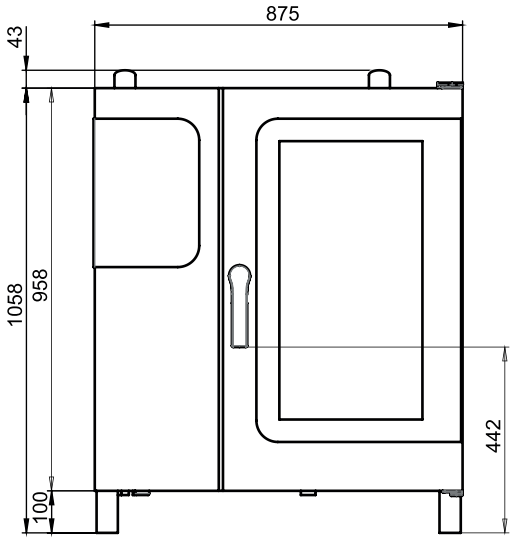
Meaning of labelled elements

- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent ∅ 50 [mm]
- I Ventilation port ∅ 50 [mm]
- M Safety overflow 80 x 25 [mm]

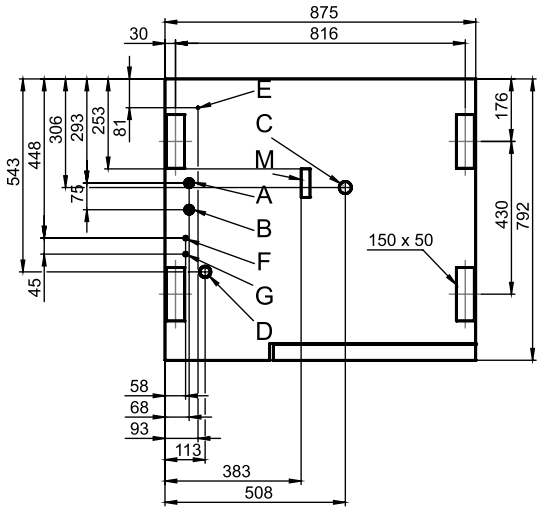
10.1.3 Convotherm 4 10.10 electrical appliance

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

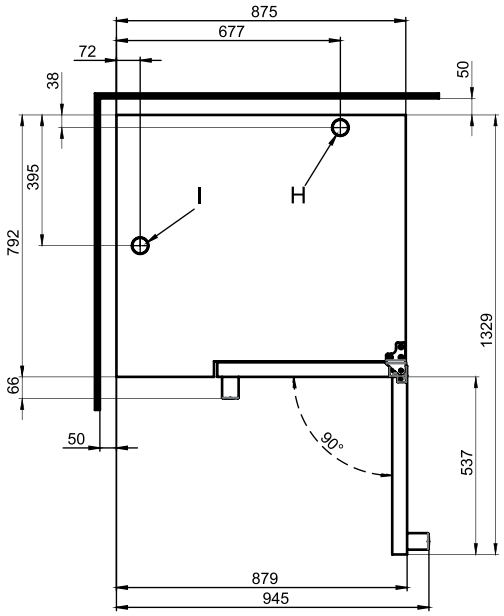
Front view



Connection positions in appliance floor



View from above with wall clearances

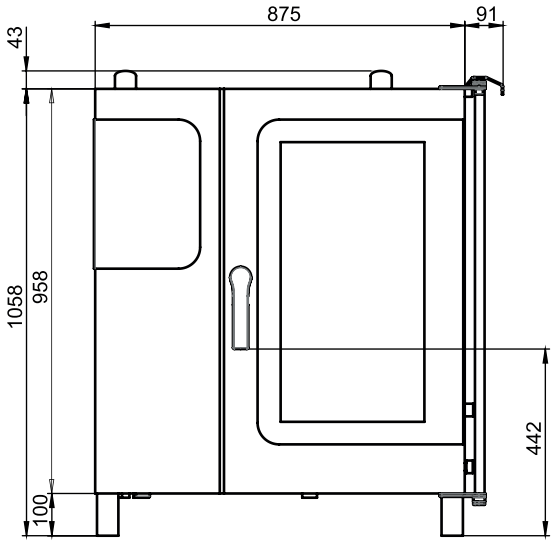


Meaning of labelled elements

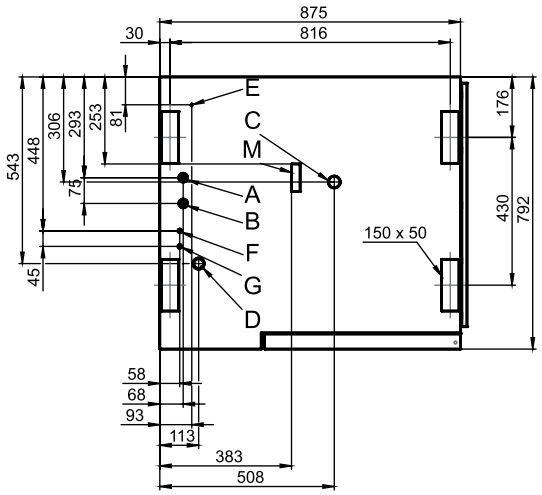
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.10 EB (disappearing door)

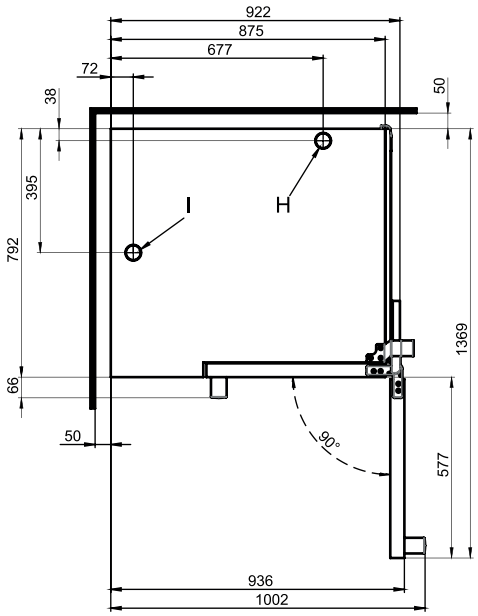
Front view



Connection positions in appliance floor



View from above with wall clearances



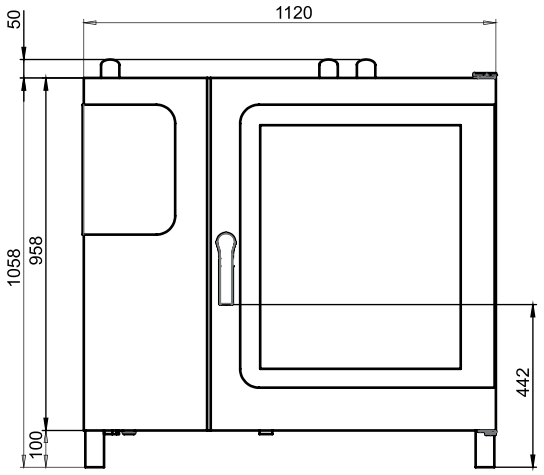
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

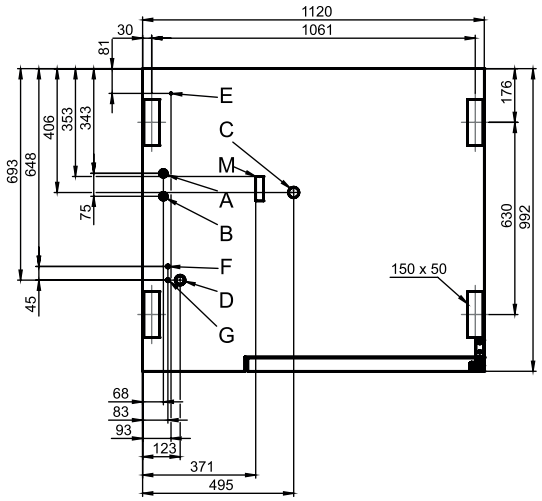
10.1.4 Convotherm 4 10.20 electrical appliance

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

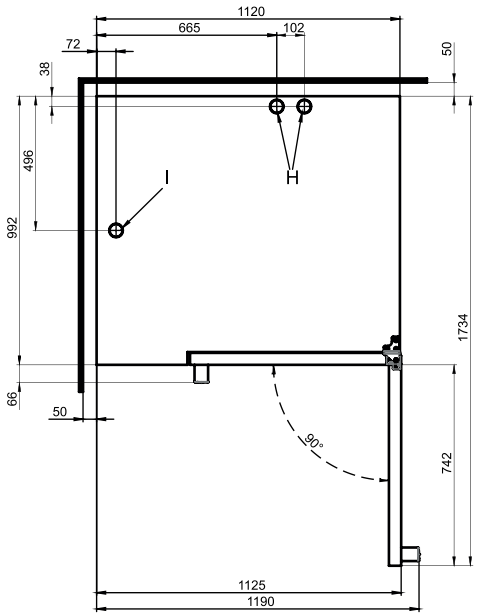
Front view



Connection positions in appliance floor



View from above with wall clearances

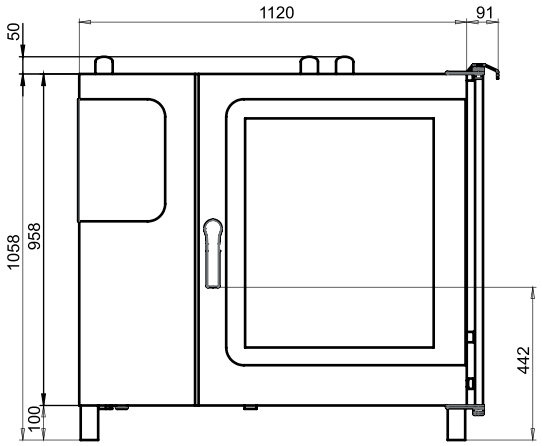


Meaning of labelled elements

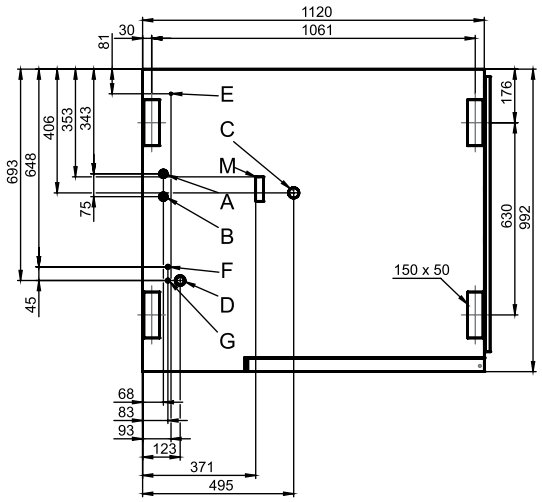
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.20 EB (disappearing door)

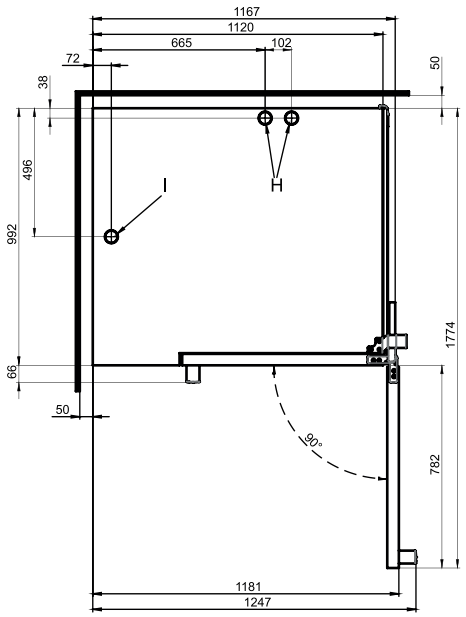
Front view



Connection positions in appliance floor



View from above with wall clearances



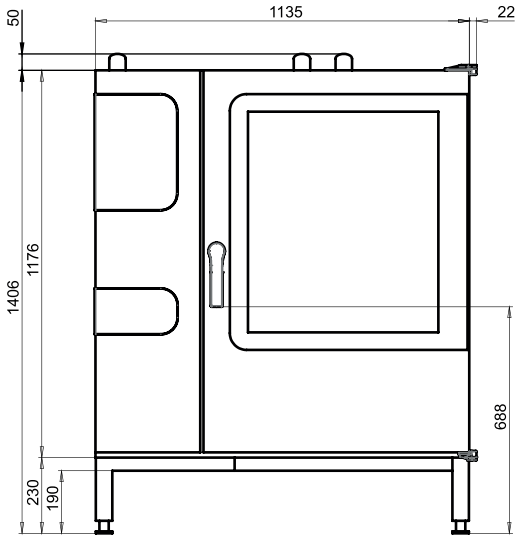
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

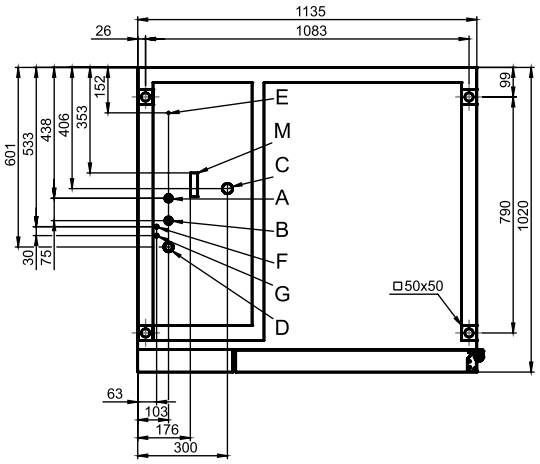
10.1.5 Convotherm 4 12.20 electrical appliance

Dimensions and connection points for C4 12.20 EB (right-hinged appliance door)

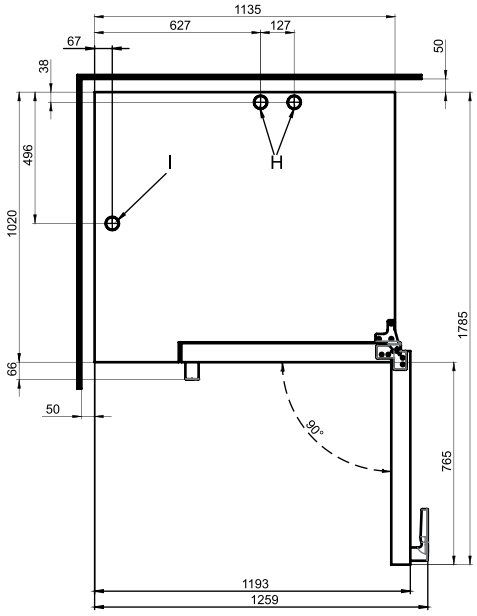
Front view



Connection positions in appliance floor



View from above with wall clearances

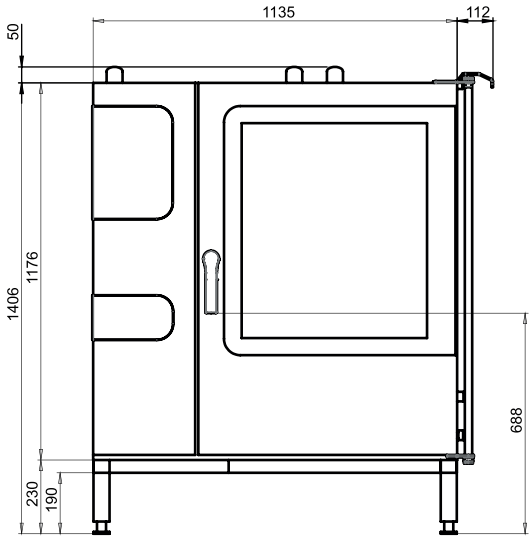


Meaning of labelled elements

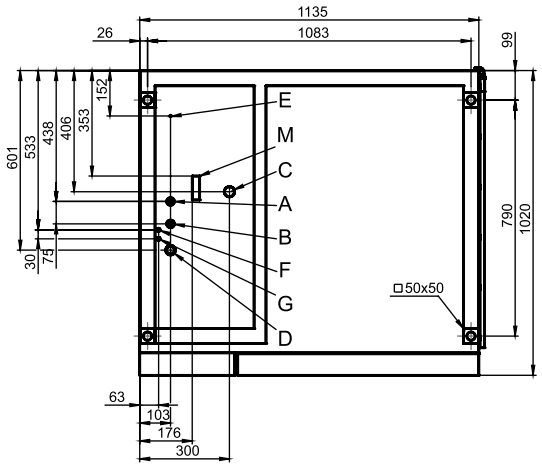
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN50
- D Electrical connection
- E Equipotential bonding
- F Rinse-aid connection (optional)
- G Cleaning-agent connection (optional)
- H Air vent ∅ 50 [mm]
- I Ventilation port ∅ 50 [mm]
- M Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 12.20 EB (disappearing door)

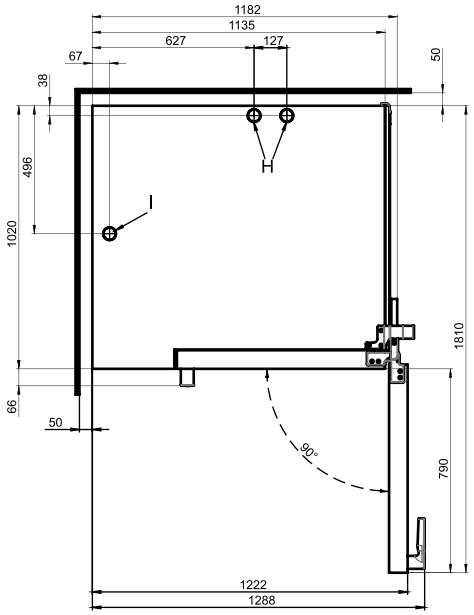
Front view



Connection positions in appliance floor



View from above with wall clearances



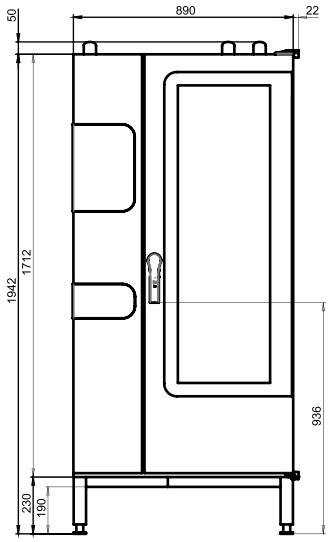
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

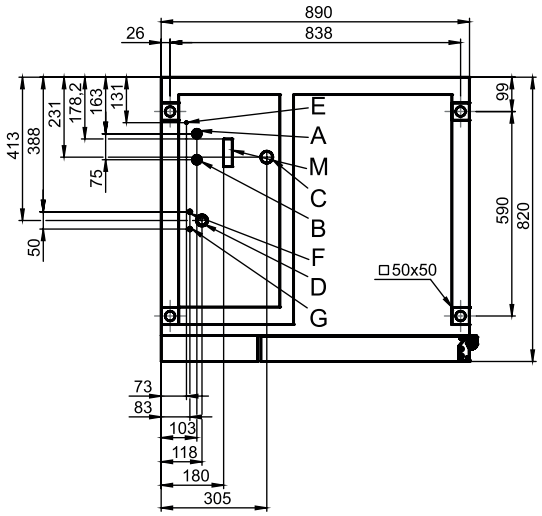
10.1.6 Convotherm 4 20.10 electrical appliance

Dimensions and connection points for C4 20.10 EB (right-hinged appliance door)

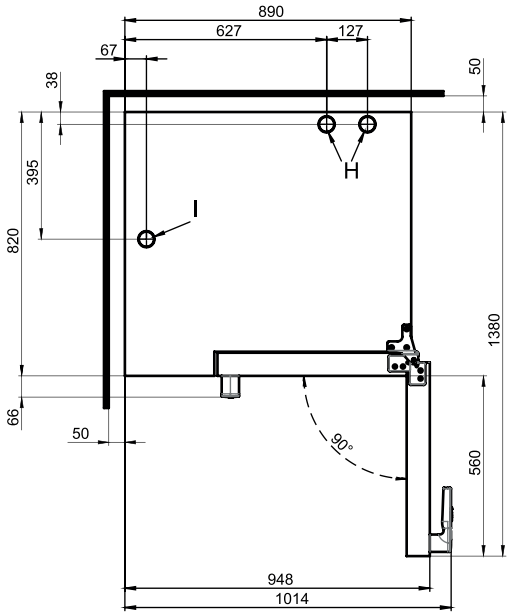
Front view



Connection positions in appliance floor



View from above with wall clearances

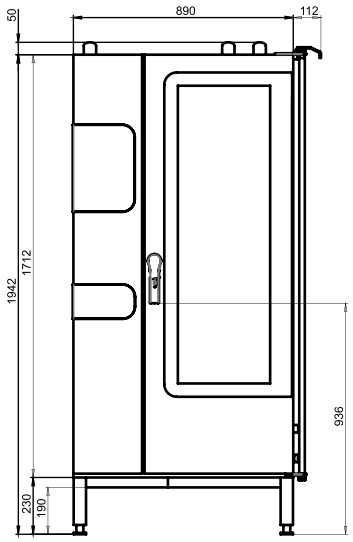


Meaning of labelled elements

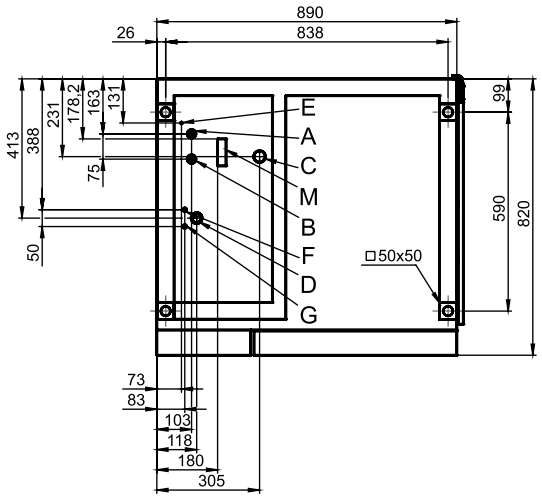
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.10 EB (disappearing door)

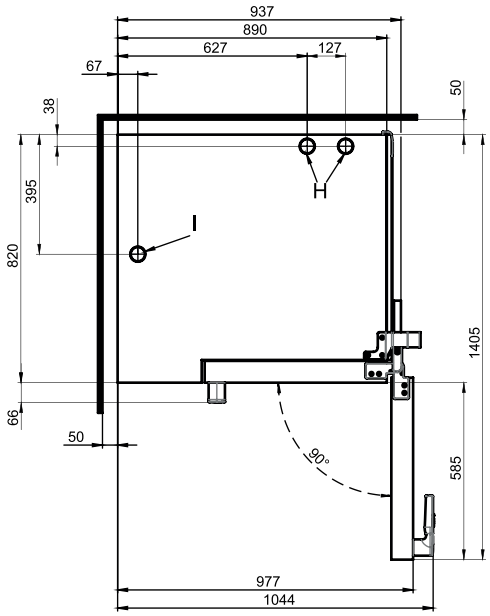
Front view



Connection positions in appliance floor



View from above with wall clearances



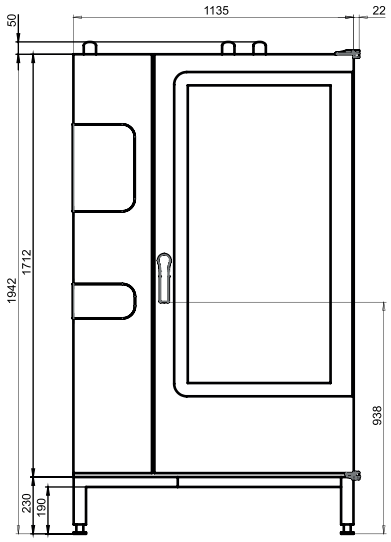
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

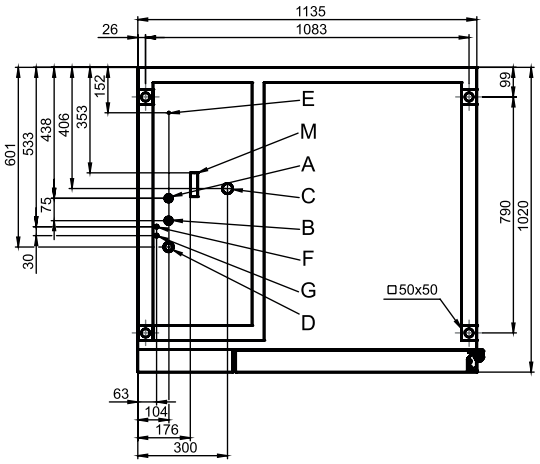
10.1.7 Convotherm 4 20.20 electrical appliance

Dimensions and connection points for C4 20.20 EB (right-hinged appliance door)

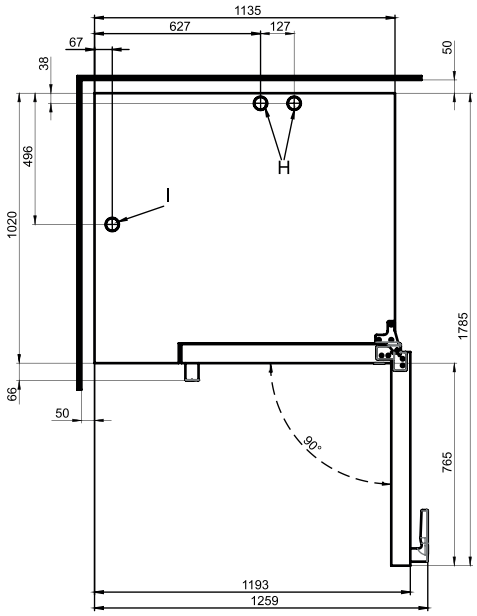
Front view



Connection positions in appliance floor



View from above with wall clearances

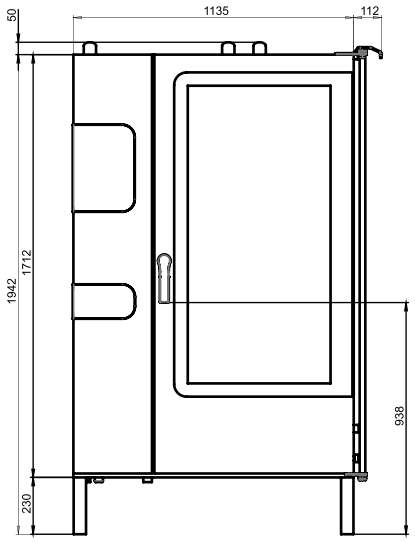


Meaning of labelled elements

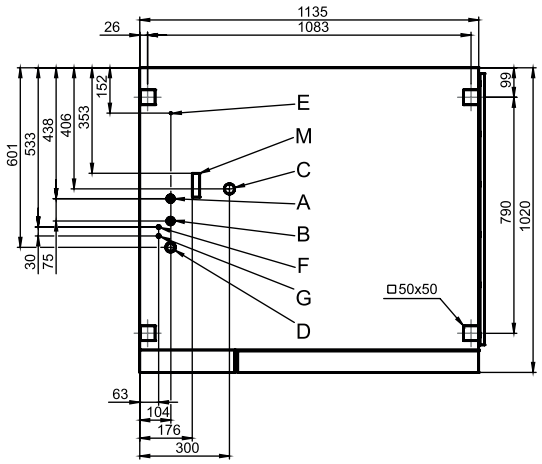
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.20 EB (disappearing door)

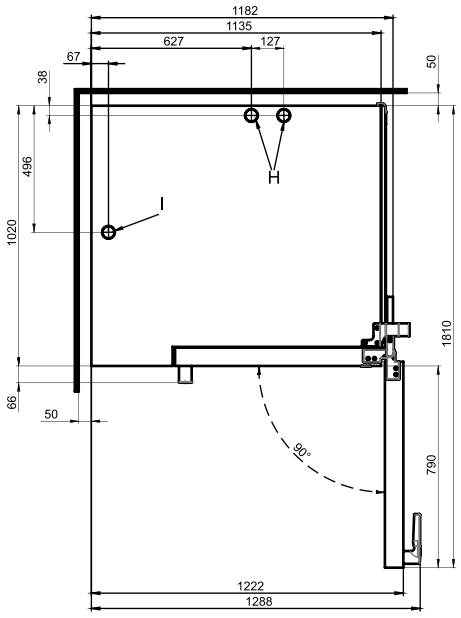
Front view



Connection positions in appliance floor



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 DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
M	Safety overflow 80 x 25 [mm]

10.2 Connection diagrams for Convotherm 4 gas appliances

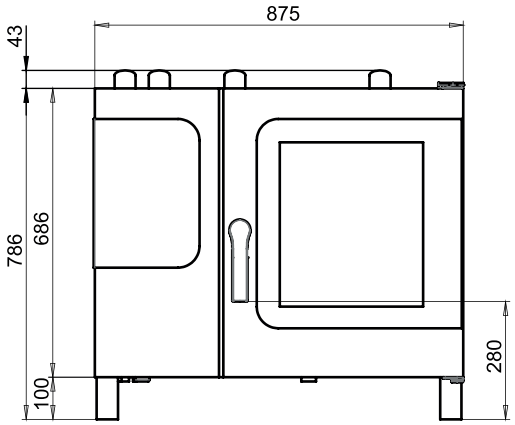
Contents

This section contains the following topics:

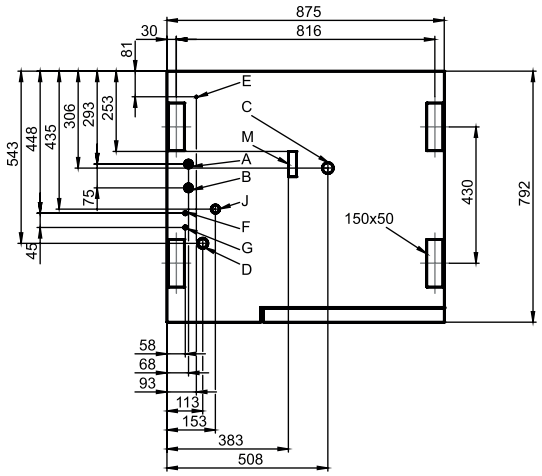
10.2.1 Convotherm 4 6.10 boiler gas appliance

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

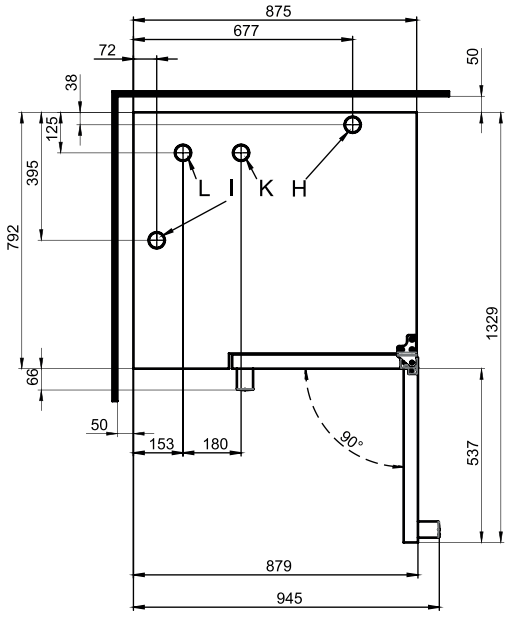
Front view



Connection positions in appliance floor



View from above with wall clearances

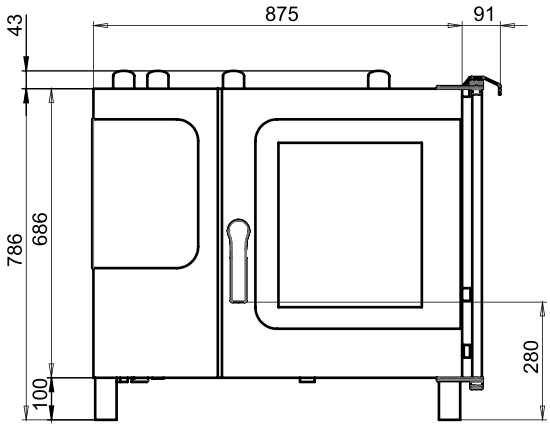


Meaning of labelled elements

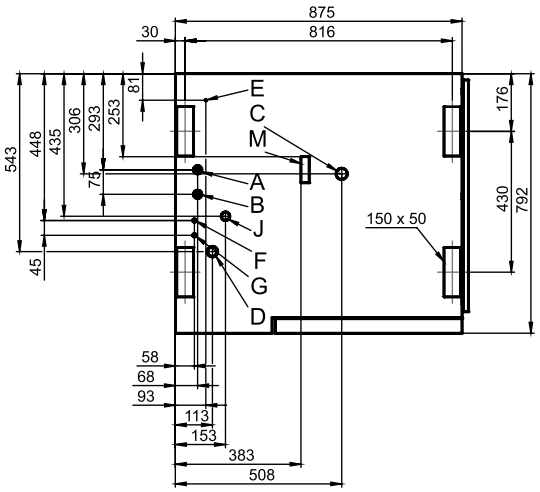
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.10 GB (disappearing door)

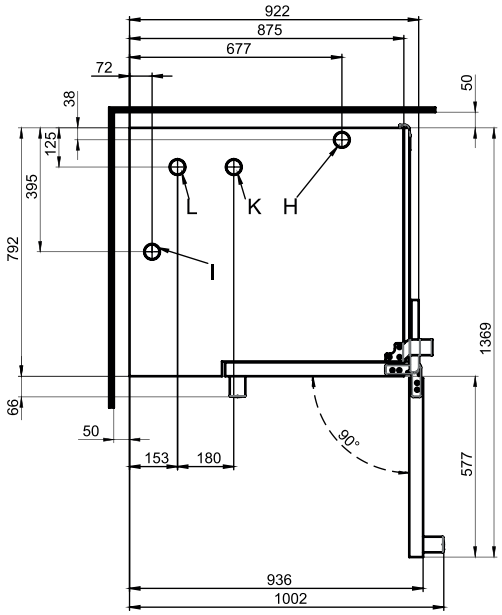
Front view



Connection positions in appliance floor



View from above with wall clearances



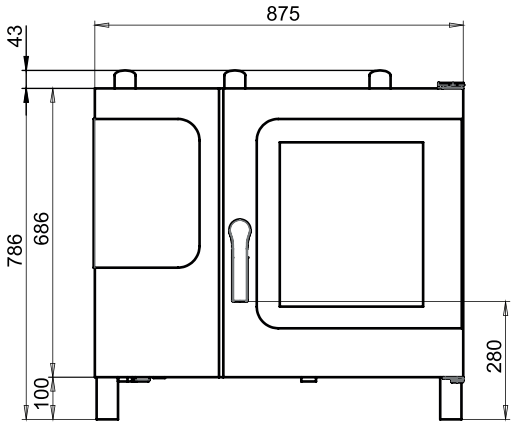
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

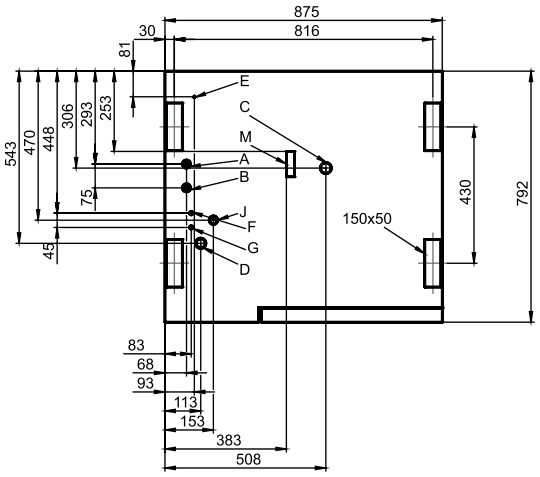
10.2.2 Convotherm 4 6.10 injection gas appliance

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

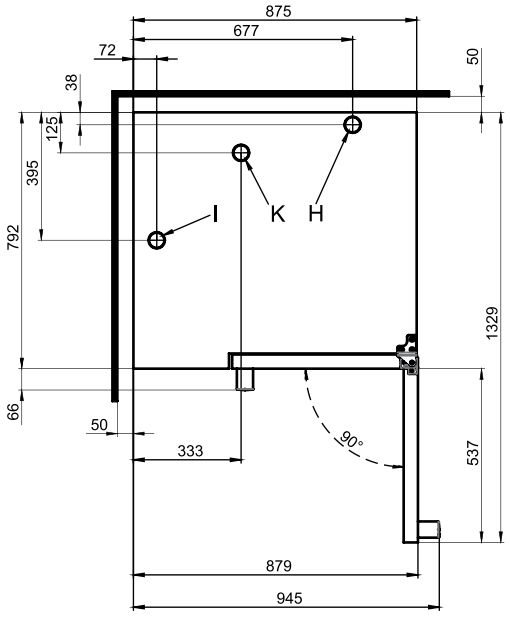
Front view



Connection positions in appliance floor



View from above with wall clearances

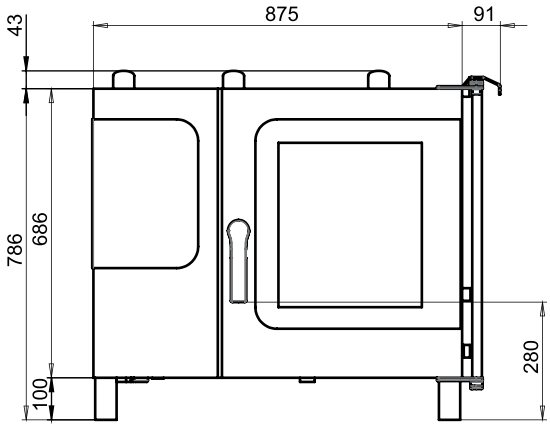


Meaning of labelled elements

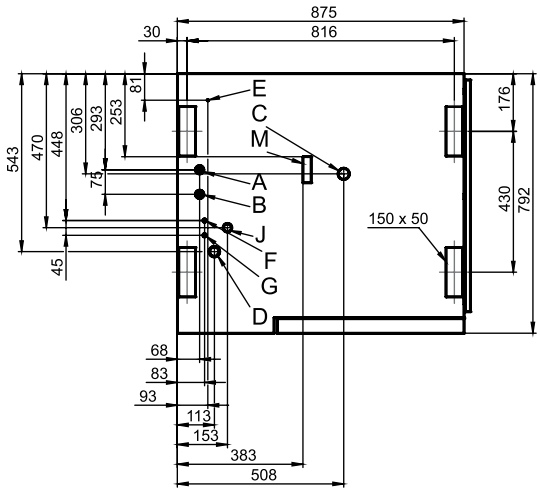
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.10 GS (disappearing door)

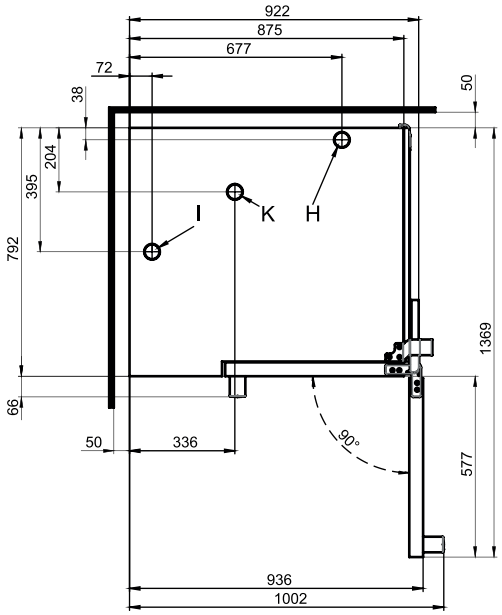
Front view



Connection positions in appliance floor



View from above with wall clearances



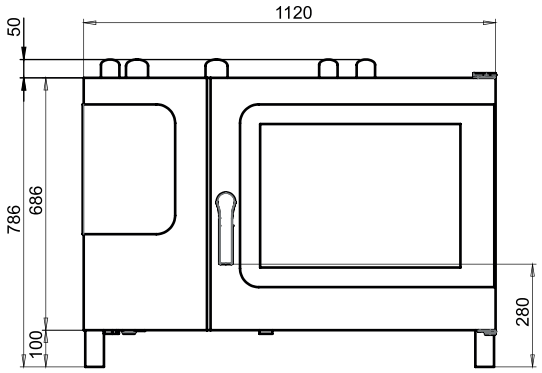
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

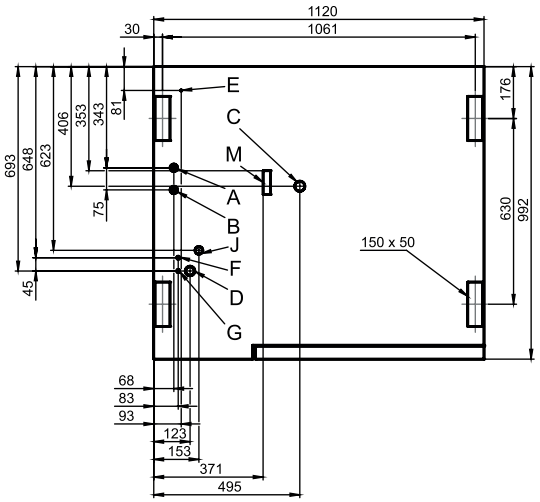
10.2.3 Convotherm 4 6.20 boiler gas appliance

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

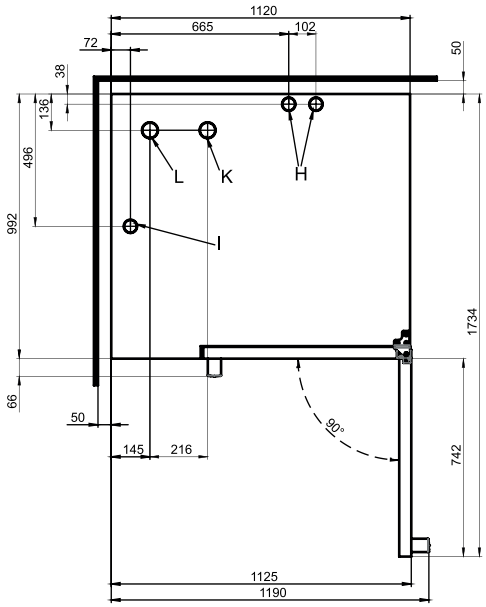
Front view



Connection positions in appliance floor



View from above with wall clearances

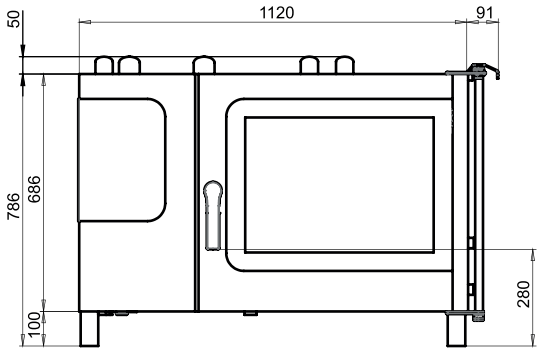


Meaning of labelled elements

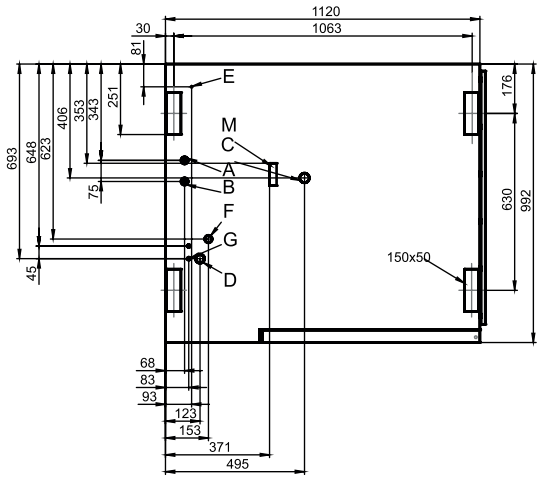
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.20 GB (disappearing door)

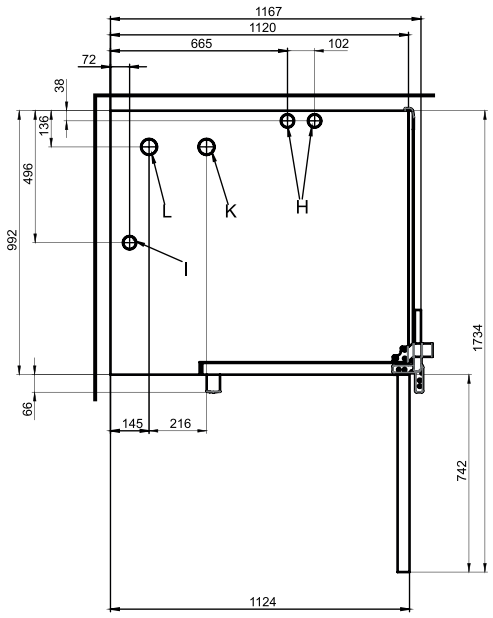
Front view



Connection positions in appliance floor



View from above with wall clearances



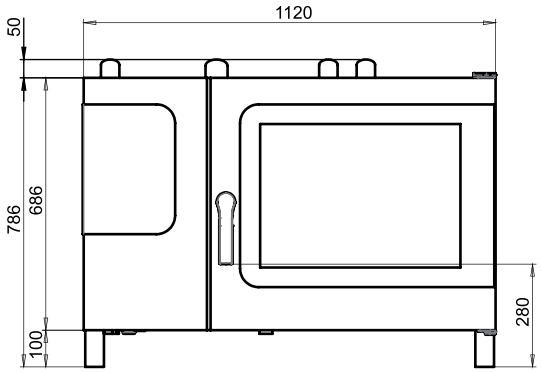
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

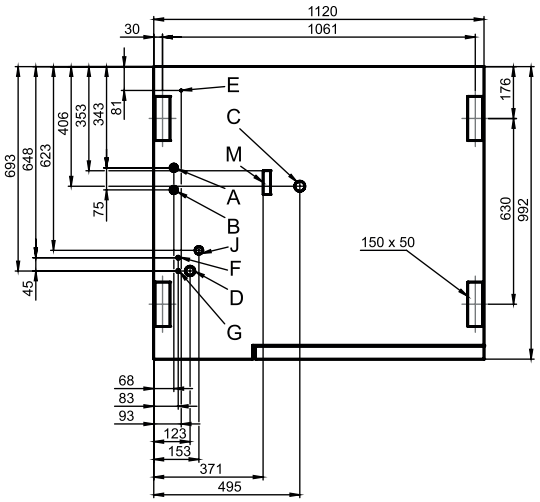
10.2.4 Convotherm 4 6.20 injection gas appliance

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

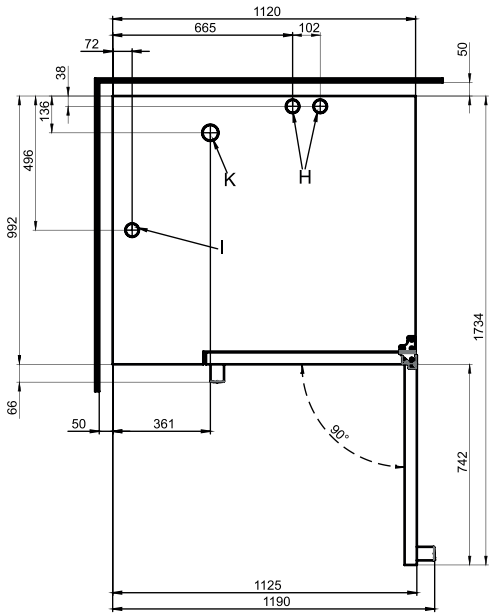
Front view



Connection positions in appliance floor



View from above with wall clearances

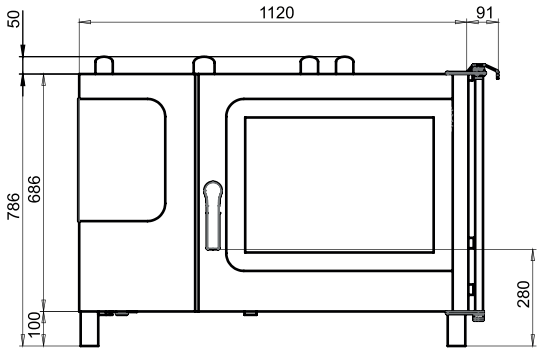


Meaning of labelled elements

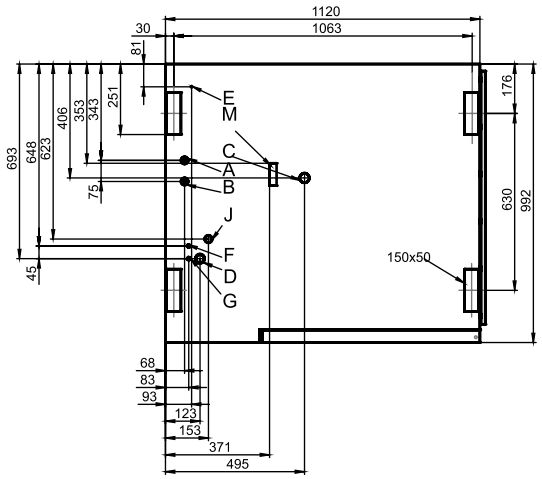
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 6.20 GS (disappearing door)

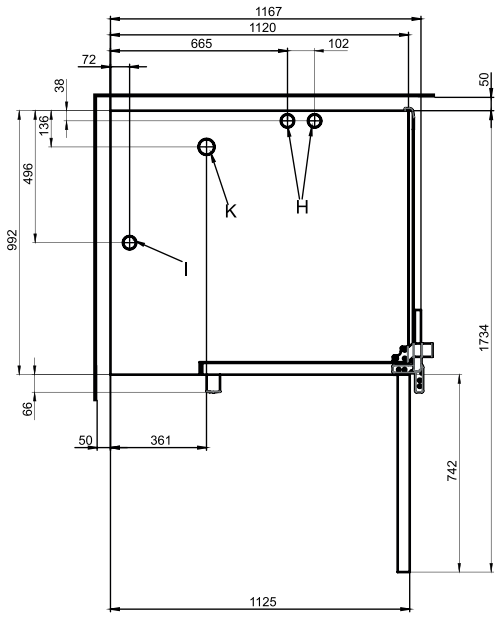
Front view



Connection positions in appliance floor



View from above with wall clearances



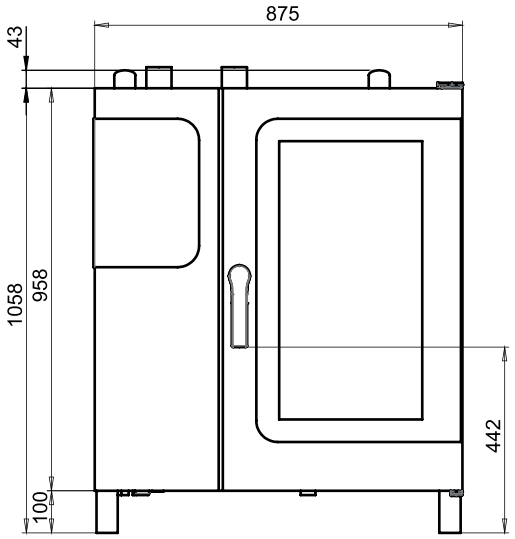
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

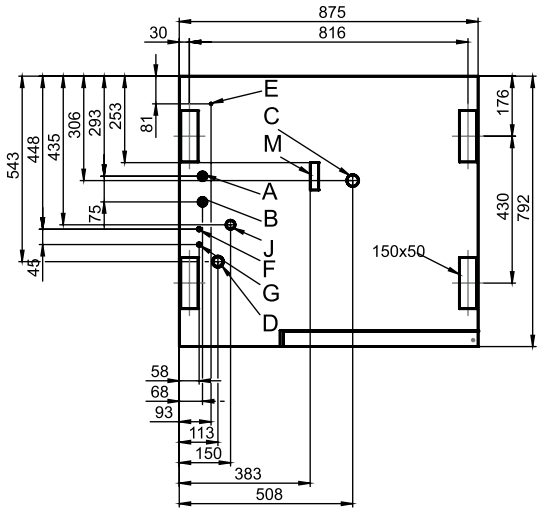
10.2.5 Convotherm 4 10.10 boiler gas appliance

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

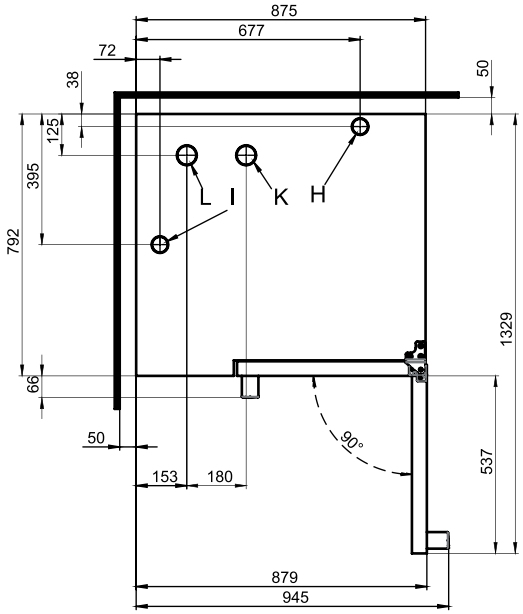
Front view



Connection positions in appliance floor



View from above with wall clearances

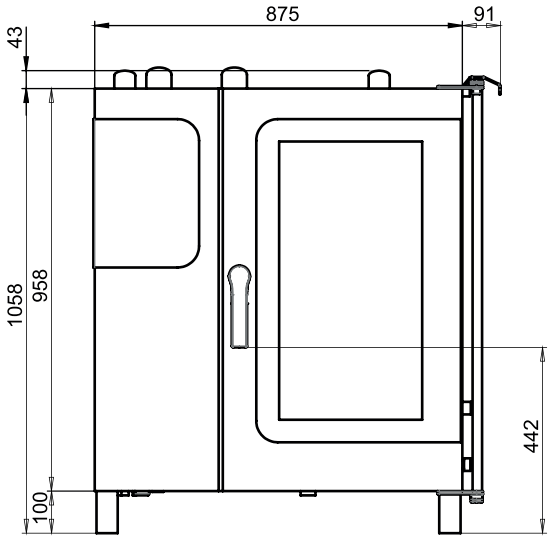


Meaning of labelled elements

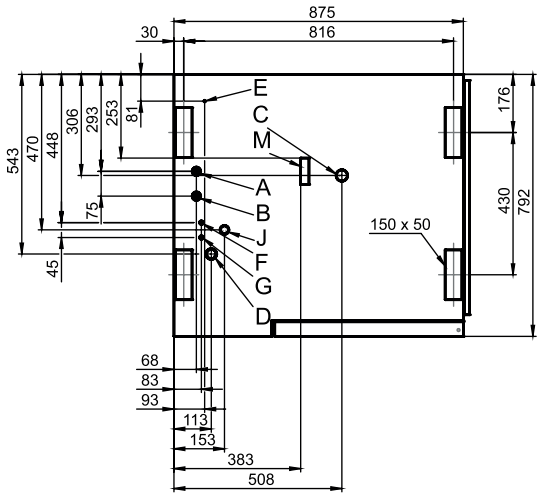
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.10 GB (disappearing door)

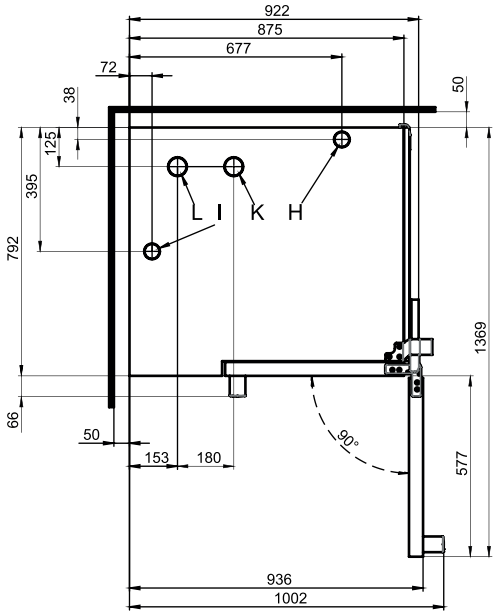
Front view



Connection positions in appliance floor



View from above with wall clearances



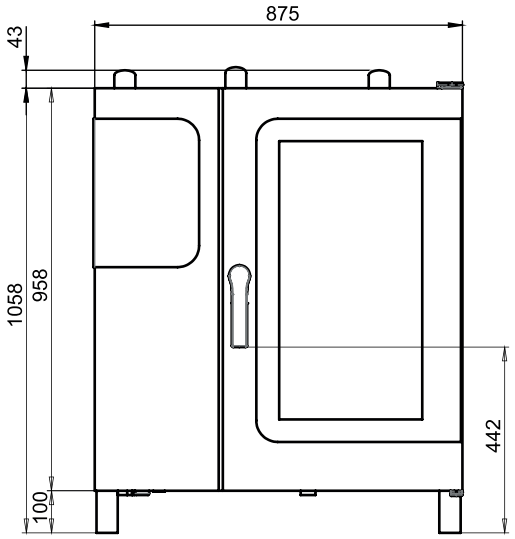
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

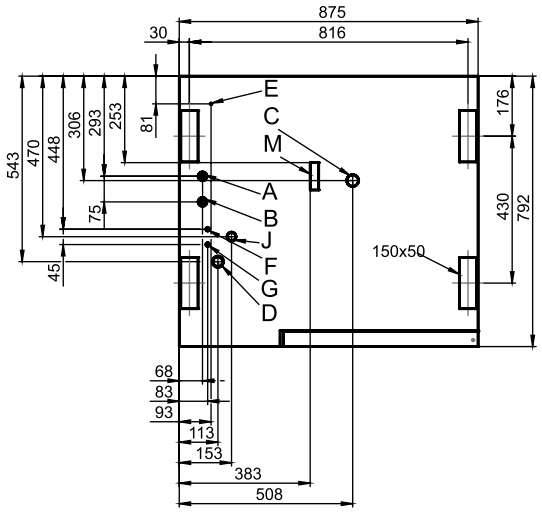
10.2.6 Convotherm 4 10.10 injection gas appliance

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

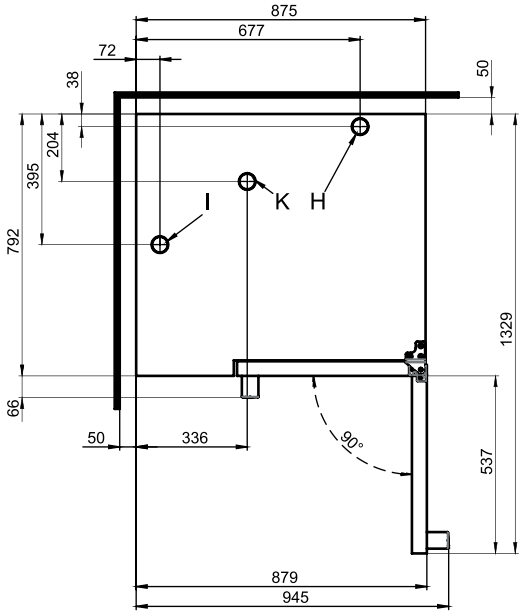
Front view



Connection positions in appliance floor



View from above with wall clearances

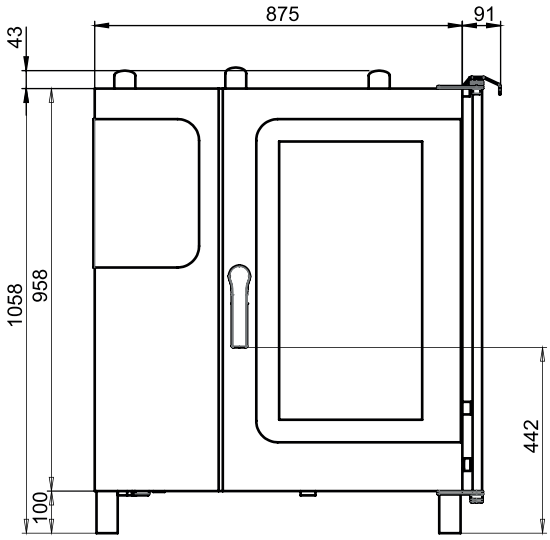


Meaning of labelled elements

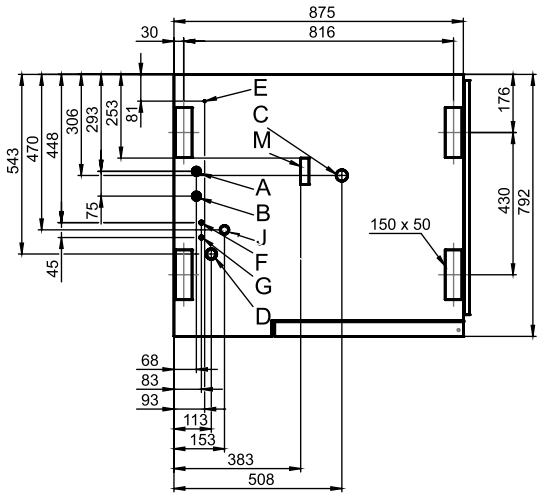
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.10 GS (disappearing door)

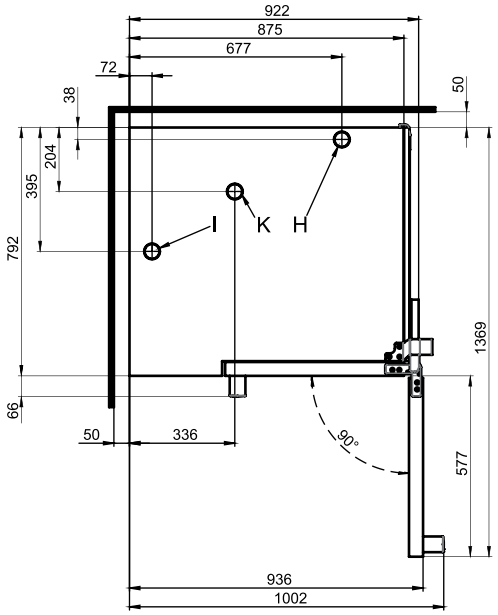
Front view



Connection positions in appliance floor



View from above with wall clearances



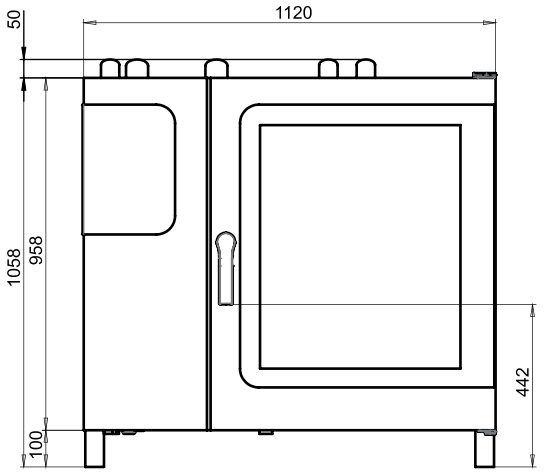
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

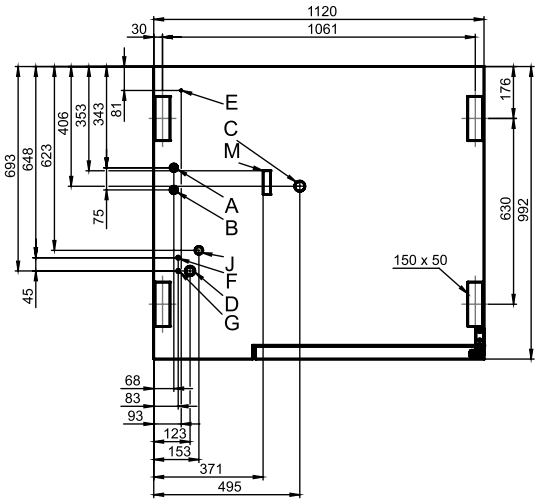
10.2.7 Convotherm 4 10.20 boiler gas appliance

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

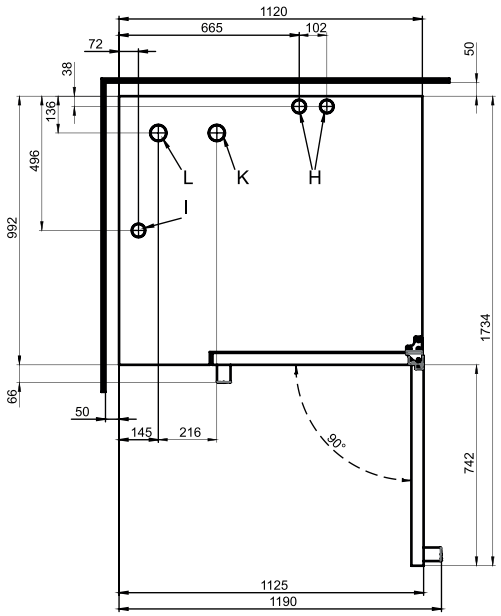
Front view



Connection positions in appliance floor



View from above with wall clearances

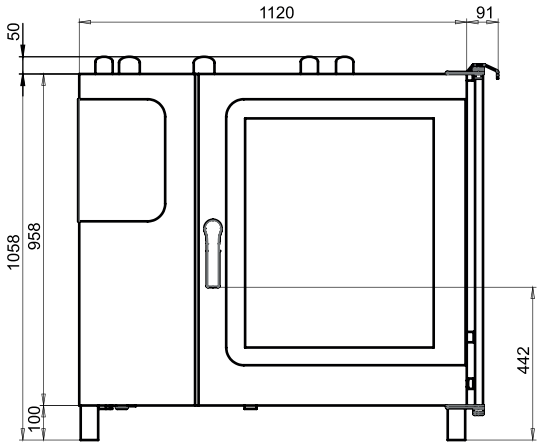


Meaning of labelled elements

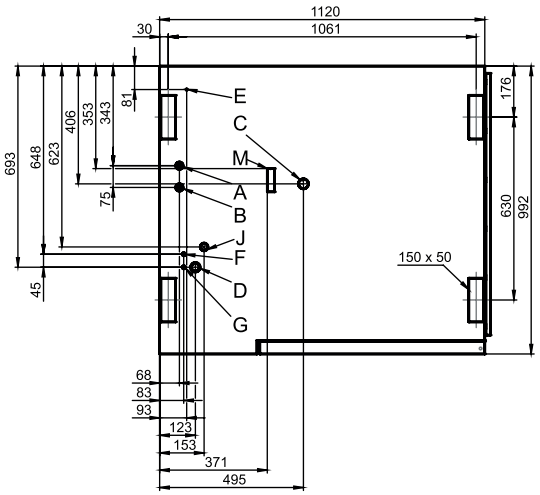
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.20 GB (disappearing door)

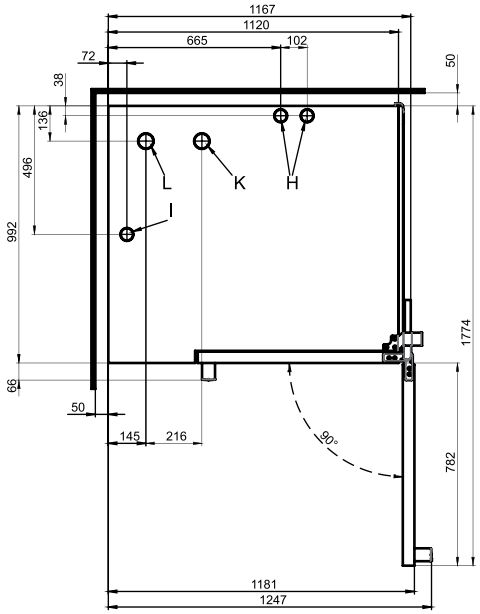
Front view



Connection positions in appliance floor



View from above with wall clearances



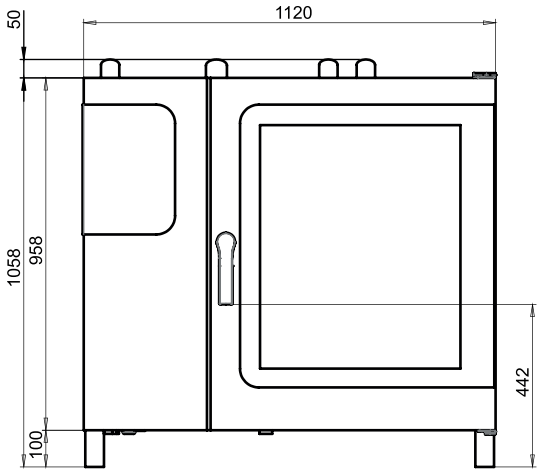
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

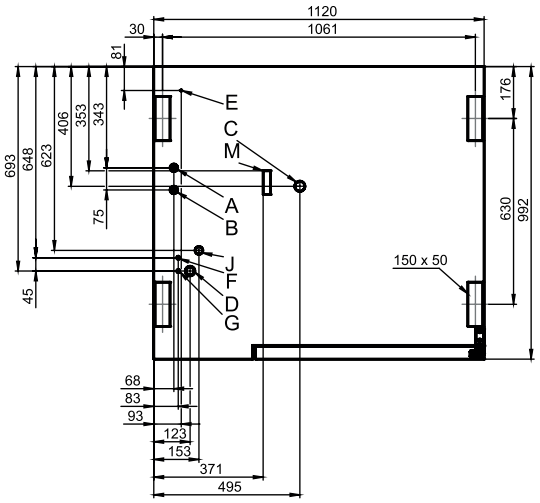
10.2.8 Convotherm 4 10.20 injection gas appliance

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

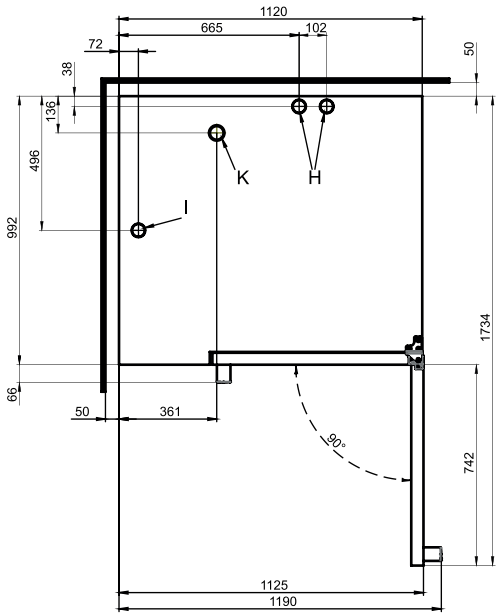
Front view



Connection positions in appliance floor



View from above with wall clearances

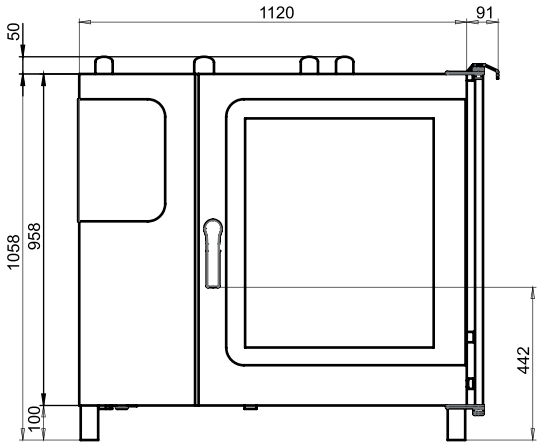


Meaning of labelled elements

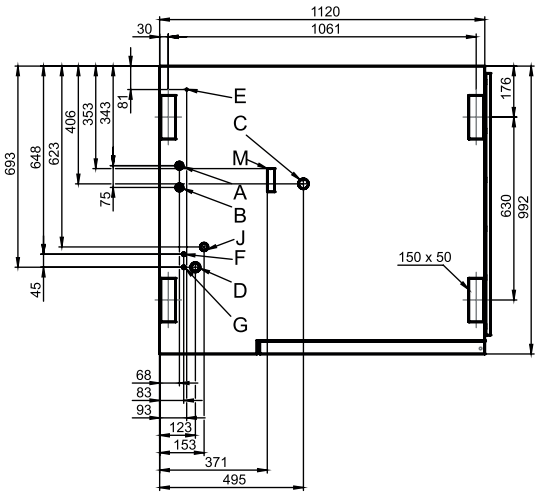
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 10.20 GS (disappearing door)

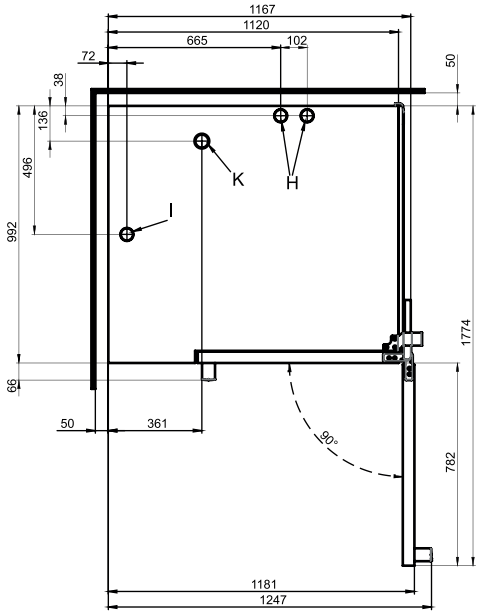
Front view



Connection positions in appliance floor



View from above with wall clearances



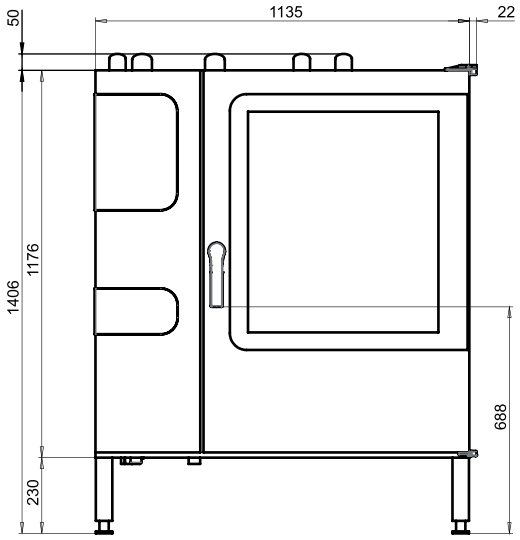
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

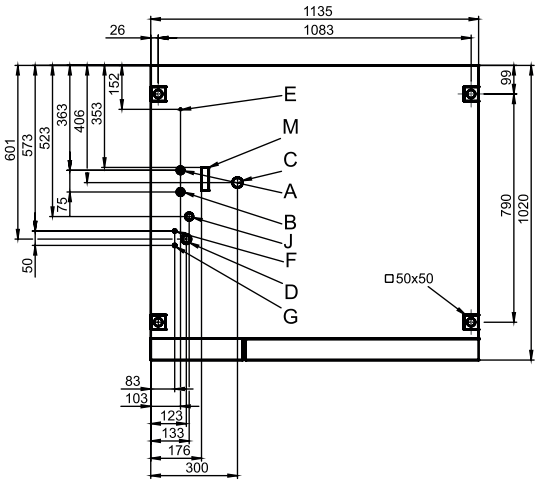
10.2.9 Convotherm 4 12.20 boiler gas appliance

Dimensions and connection points for C4 12.20 GB (right-hinged appliance door)

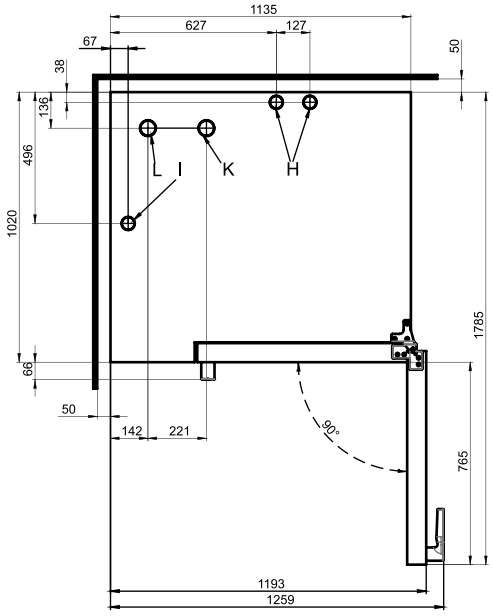
Front view



Connection positions in appliance floor



View from above with wall clearances

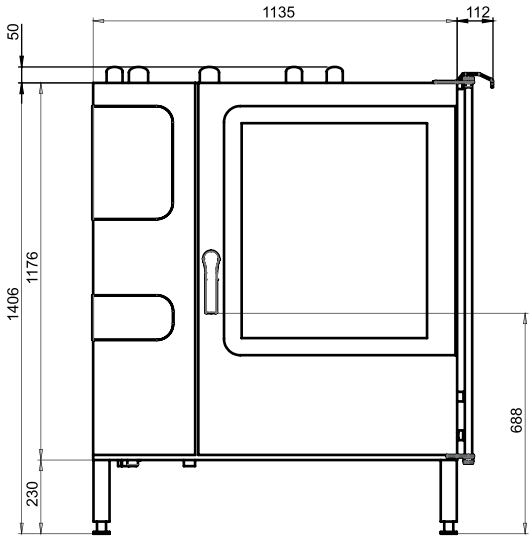


Meaning of labelled elements

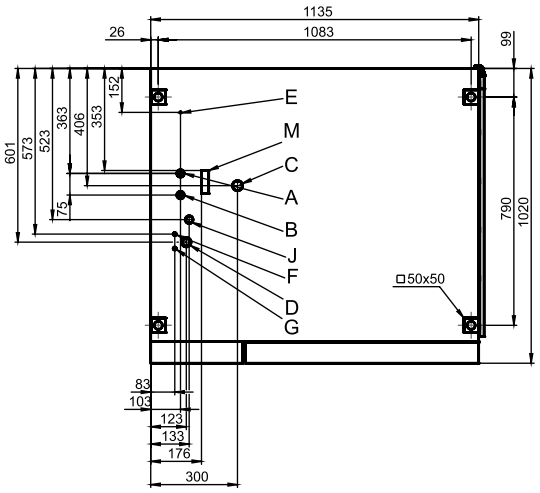
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 12.20 GB (disappearing door)

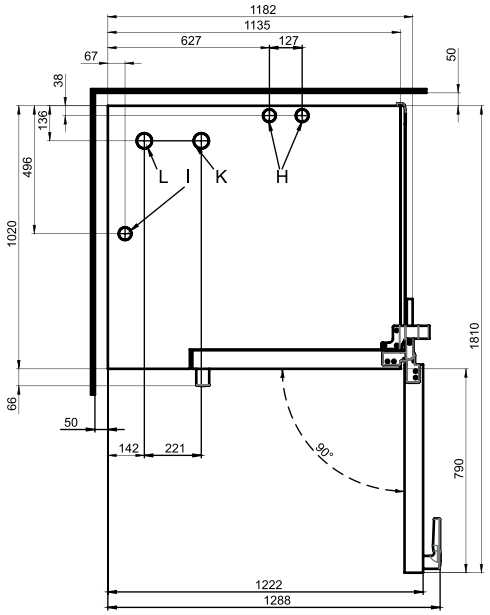
Front view



Connection positions in appliance floor



View from above with wall clearances



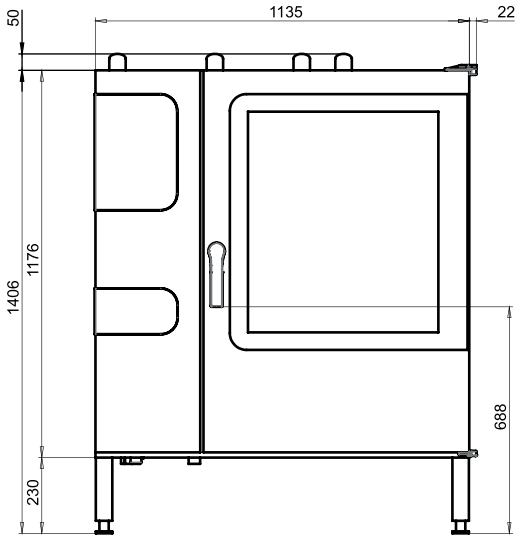
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection for cold water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

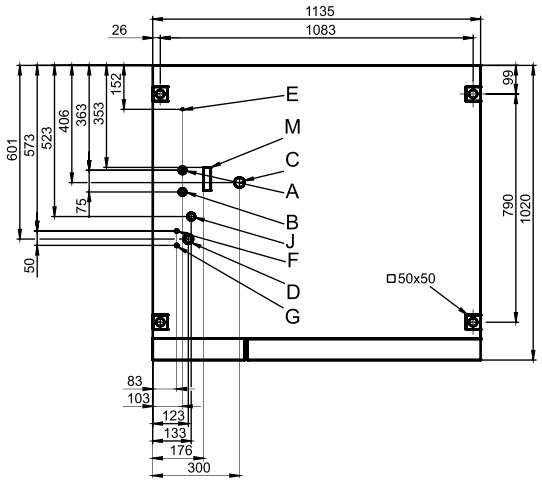
10.2.10 Convotherm 4 12.20 injection gas appliance

Dimensions and connection points for C4 12.20 GS (right-hinged appliance door)

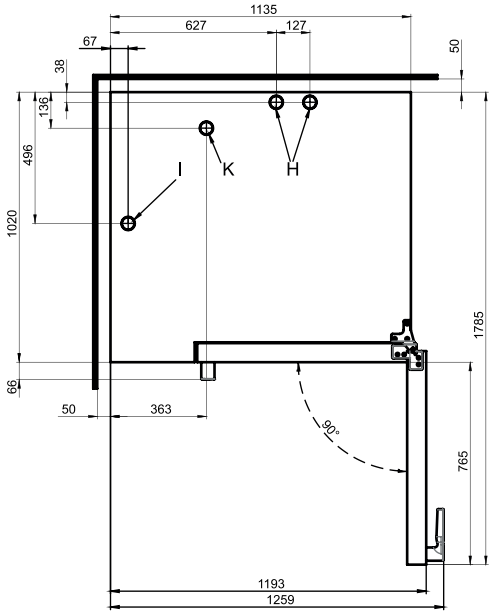
Front view



Connection positions in appliance floor



View from above with wall clearances

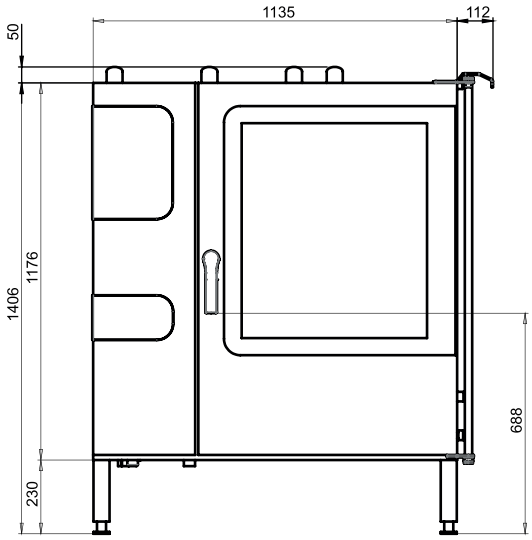


Meaning of labelled elements

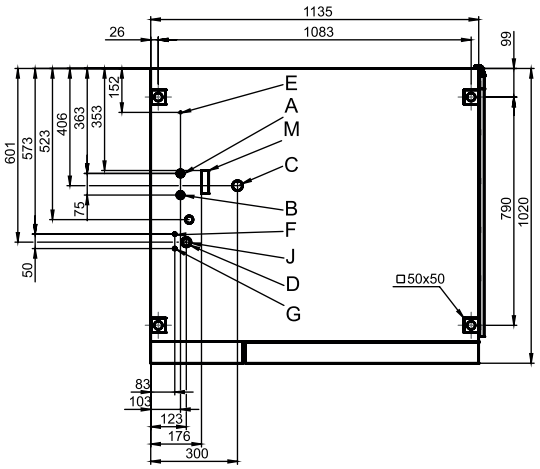
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 12.20 GS (disappearing door)

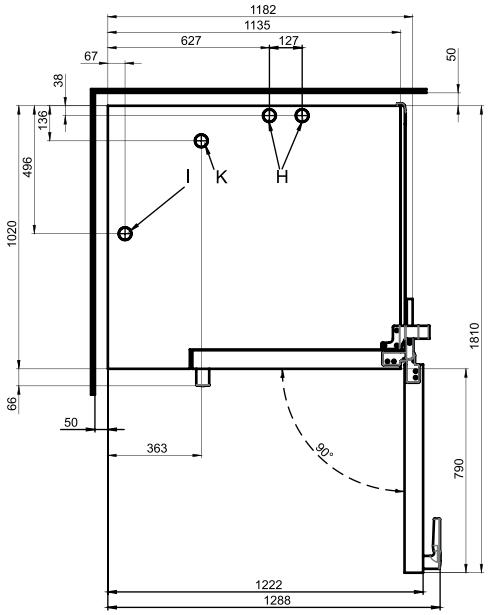
Front view



Connection positions in appliance floor



View from above with wall clearances



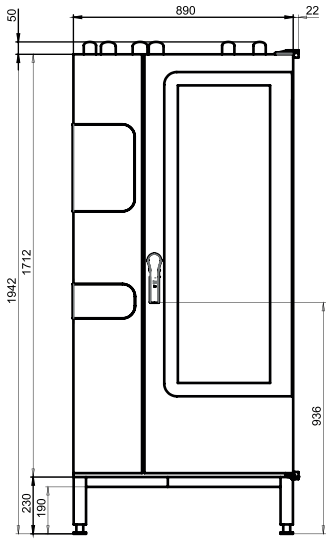
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

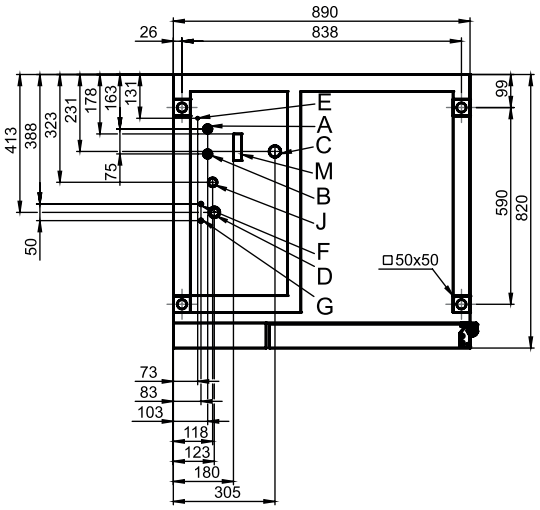
10.2.11 Convotherm 4 20.10 boiler gas appliance

Dimensions and connection points for C4 20.10 GB (right-hinged appliance door)

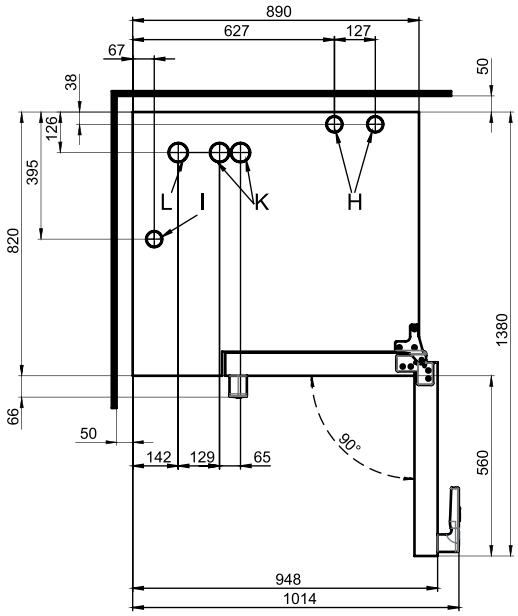
Front view



Connection positions in appliance floor



View from above with wall clearances

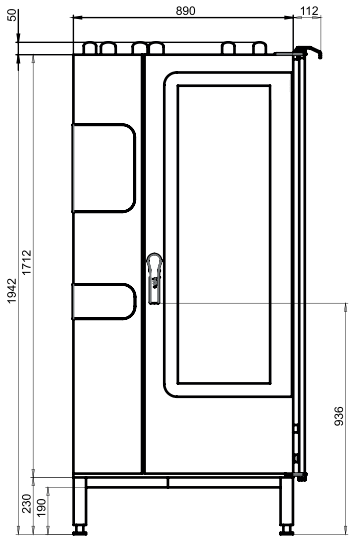


Meaning of labelled elements

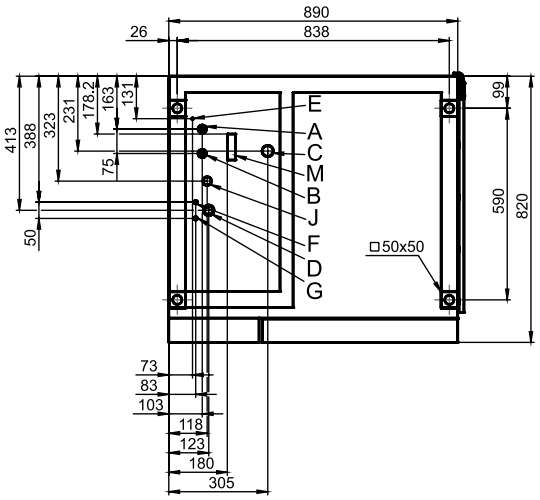
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.10 GB (disappearing door)

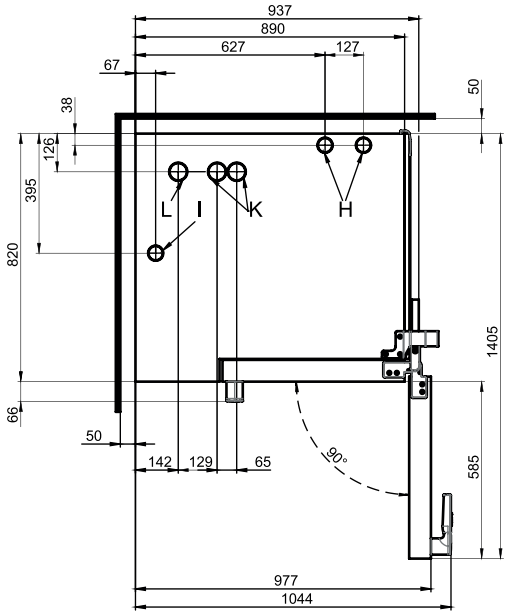
Front view



Connection positions in appliance floor



View from above with wall clearances



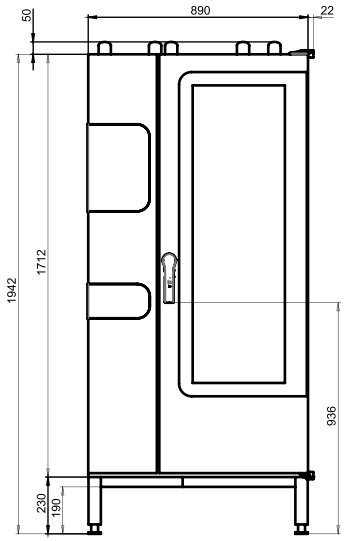
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

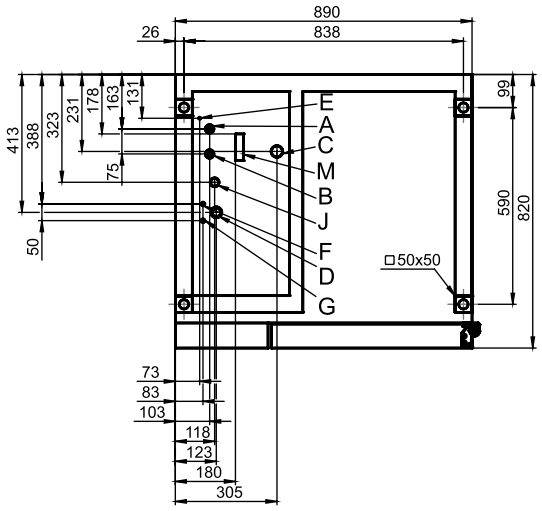
10.2.12 Convotherm 4 20.10 injection gas appliance

Dimensions and connection points for C4 20.10 GS (right-hinged appliance door)

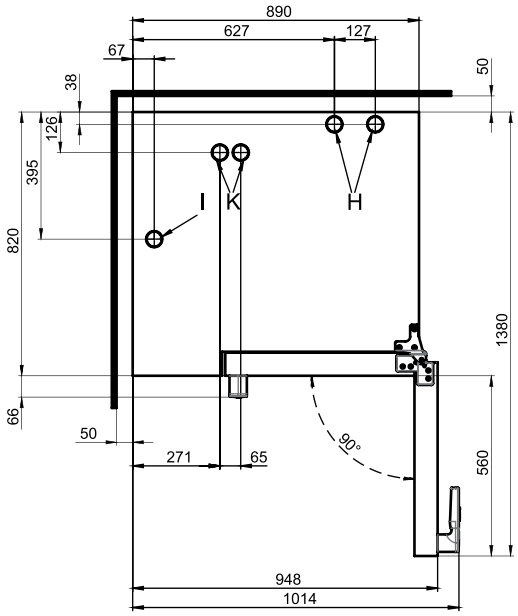
Front view



Connection positions in appliance floor



View from above with wall clearances

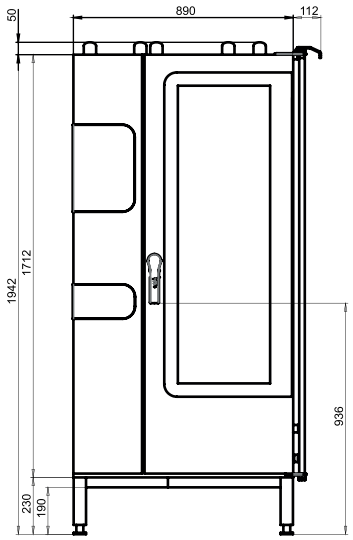


Meaning of labelled elements

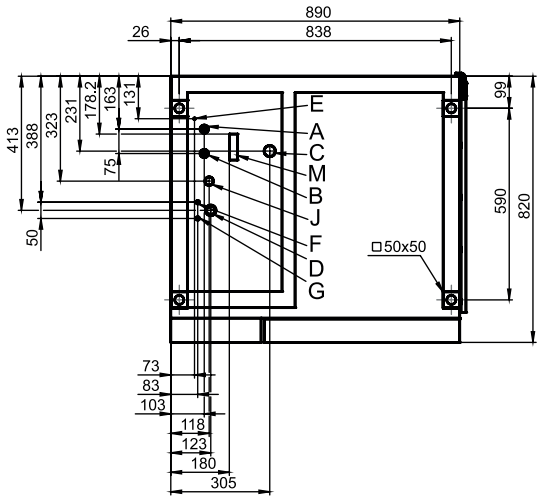
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.10 GS (disappearing door)

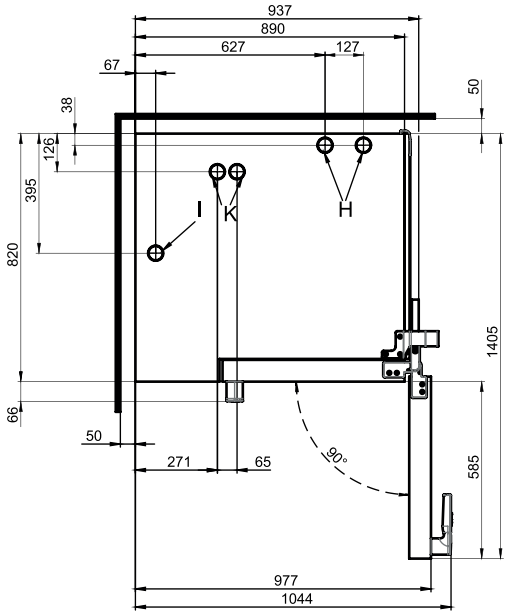
Front view



Connection positions in appliance floor



View from above with wall clearances



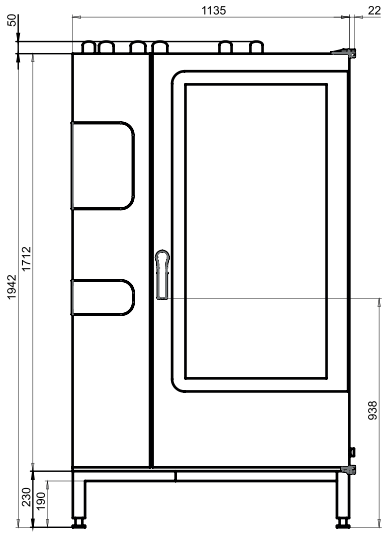
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

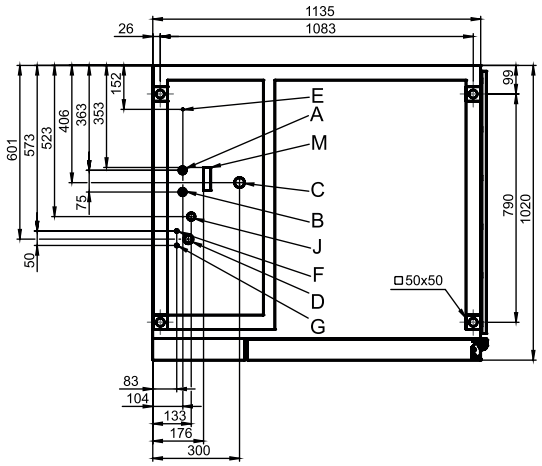
10.2.13 Convotherm 4 20.20 boiler gas appliance

Dimensions and connection points for C4 20.20 GB (right-hinged appliance door)

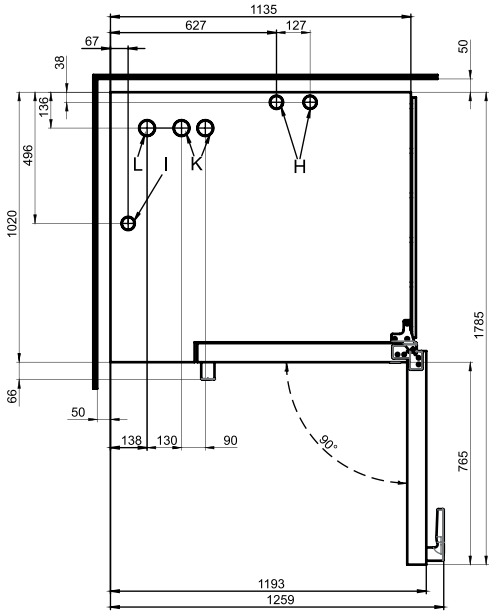
Front view



Connection positions in appliance floor



View from above with wall clearances

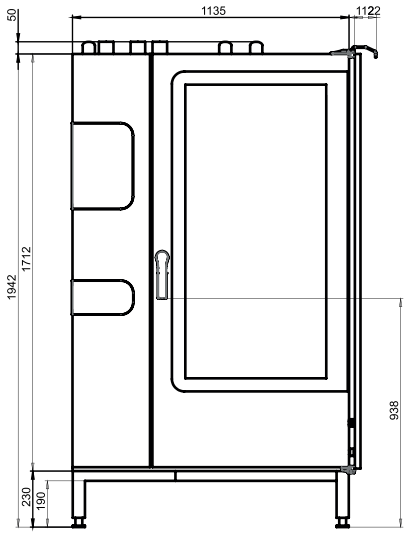


Meaning of labelled elements

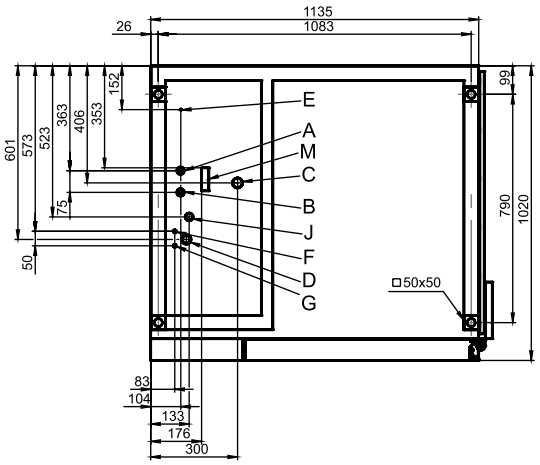
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.20 GB (disappearing door)

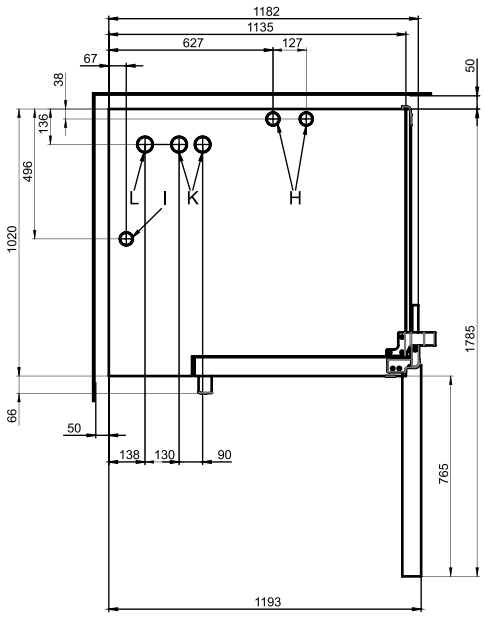
Front view



Connection positions in appliance floor



View from above with wall clearances



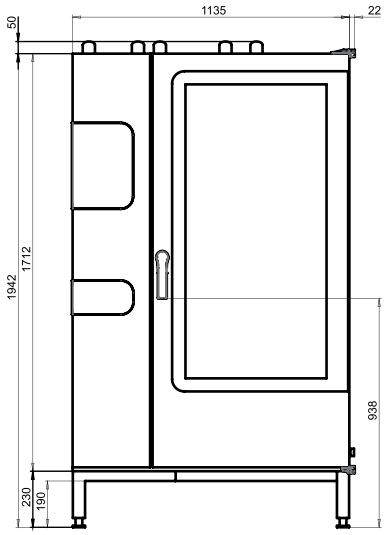
Meaning of labelled elements

A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
L	Exhaust outlet (boiler)
M	Safety overflow 80 x 25 [mm]

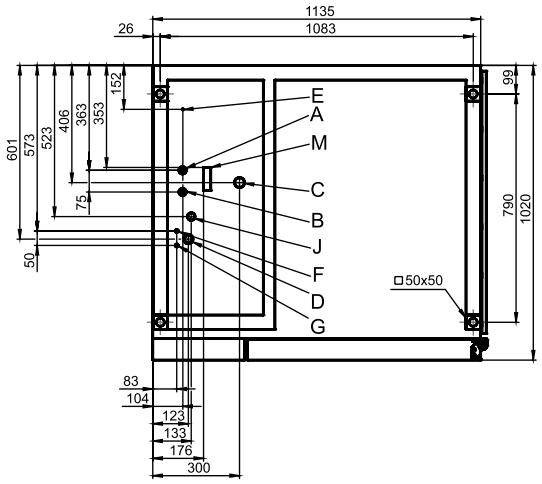
10.2.14 Convotherm 4 20.20 injection gas appliance

Dimensions and connection points for C4 20.20 GS (right-hinged appliance door)

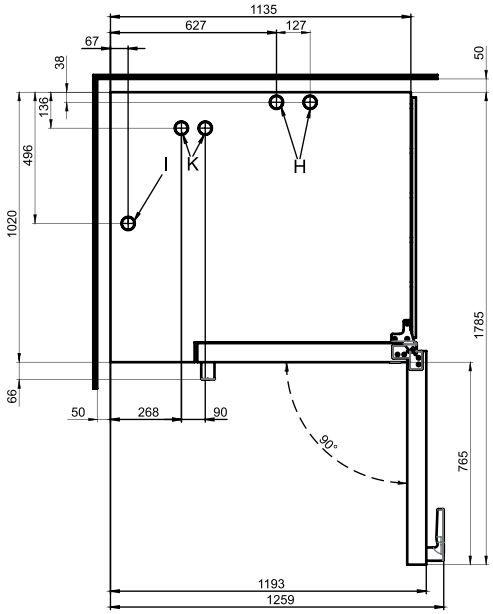
Front view



Connection positions in appliance floor



View from above with wall clearances

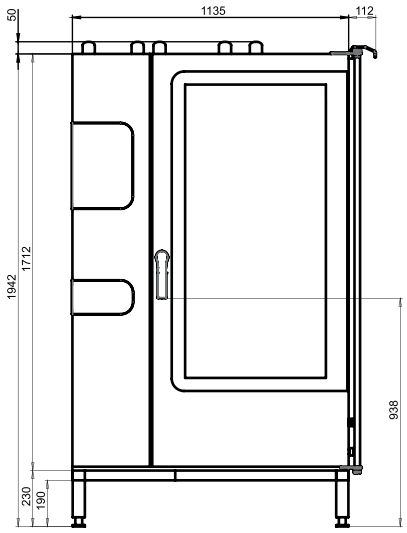


Meaning of labelled elements

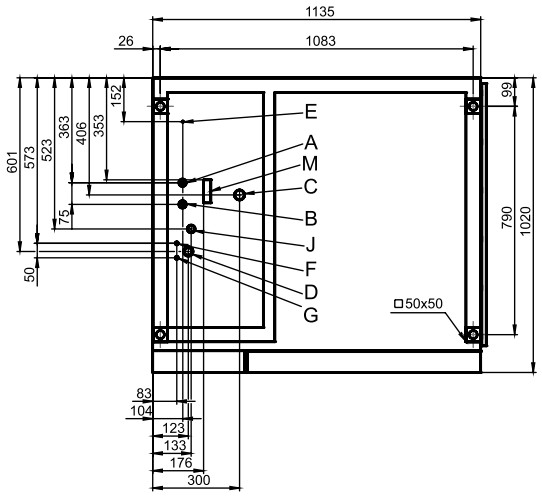
A	Water connection Soft water G 3/4"
B	Water connection Hard water G 3/4"
C	Drain connection DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

Dimensions and connection points for C4 20.20 GS (disappearing door)

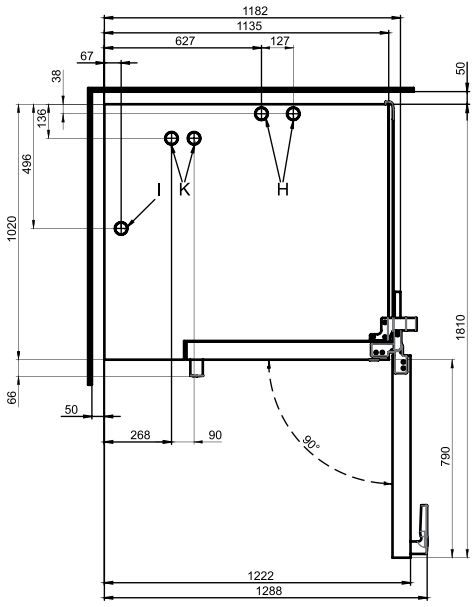
Front view



Connection positions in appliance floor



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 DN50
D	Electrical connection
E	Equipotential bonding
F	Rinse-aid connection (optional)
G	Cleaning-agent connection (optional)
H	Air vent ∅ 50 [mm]
I	Ventilation port ∅ 50 [mm]
J	Gas supply
K	Exhaust outlet (convection heater)
M	Safety overflow 80 x 25 [mm]

11 Checklists and completion of installation

Purpose of this chapter

This chapter contains the installation checklists and instructions for the owner's member of staff responsible for the appliance. The checklists are used to prove that the combi steamer has been installed correctly. This chapter is intended for a qualified member of staff from an authorized service company who has overall responsibility for preparing the appliance for first-time use.

Contents

This chapter contains the following topics:

11.1 Checklist: moving, setting up and installing the appliance

Target reader

The following checklists are aimed at the qualified person employed by the authorized service company who has overall responsibility for preparing the appliance for first-time use (start-up engineer).

Action

As start-up engineer, enter the basic information and check the installation against the following checklists.

Check the box of those conditions that have been satisfied.

Basic information

Enter the basic information below:

Location of installed appliance (address)	
Appliance number (as given on type plate)	
Part number (as given on type plate)	

Checklist

Check whether the following installation steps have been performed in accordance with requirements, and check the box of those conditions that have been satisfied.

Moving the appliance	Requirements met
Moving the appliance to the installation location on page 46	☐

Setting up the appliance	Requirements met
Requirements for the installation location on page 50	☐
Unpacking on page 55	☐
Taking the appliance off the pallet on page 59	☐
Setting up a table-top unit on a work surface on page 61	☐
Setting up a table-top unit on a stand on page 63	☐
Setting up the appliance on a wheeled stand on page 65	☐
Setting up a floor-standing unit on the floor on page 68	☐

Installation	Requirements met
Electrical installation on page 70	☐
Gas installation on page 77	☐
Water connection on page 86	☐
Installing the fully automatic oven cleaning system on page 95 (optional)	☐

11.2 Checklist: Safety devices and warnings

Safety devices

Inspect the following safety devices. Check the box to confirm that the corresponding safety device is fitted and working properly.

Safety device	Fitted / Working properly
Cover is fitted	☐
Operating panel is fitted	☐
Appliance door has no scratches, cracks or dents	☐
Venting position of appliance door is working	☐
Suction plate in place and properly secured	☐
Magnetic door switch: electric door sensor for appliance door is working	☐
Disconnection device working properly	☐
Gas shut-off device working properly	☐
Retaining device for wheeled stand for restricting the range of movement	☐

Warning signs

Check the warning signs. Check the box to confirm that the warning signs are fitted.

Warning signs on the combi steamer	Fitted
Position and description of the warning signs on table-top units on page 24	☐
Position and description of the warning signs on floor-standing units on page 26	☐

11.3 Checklist: Customer guidance and instruction

Parts of the customer documentation that must be read without fail

Before working with the combi steamer, the user must familiarize himself/herself with the appliance and must have read and understood the following parts of the user manual before carrying out any work:

- the chapter 'Design and function'
- the chapter 'For your safety'
- the sections that describe the activity to be carried out

The user must also find out how to operate the software by reading the operating instructions and any guidance in the on-screen Help where applicable.

Tick the relevant box to confirm that you have directed the customer to the important chapters in the user manual, in the operating instructions and in the on-screen Help (easyTouch only).

	Customer informed
User manual	☐
Operating instructions	☐
On-screen Help (easyTouch only)	☐

11.4 Completion of the installation

Warranty

In order to be able to claim under the warranty for the combi steamer, 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 before a warranty claim can be dealt with.

The warranty does not cover damage resulting from improper setup, installation, use, cleaning, use of cleaning fluids, 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.

Confirmation that appliance is ready for use

The appliance has been installed by a qualified member of staff of an authorized service company in accordance with the requirements given in this installation manual and with relevant local regulations.

Date _____

Name of start-up engineer (block capitals) _____

Signature of start-up engineer _____

Confirmation of guidance given to customer

The customer documentation has been handed to the customer / user. The customer has been informed of the important chapters as listed under '*Checklist* on page 182': customer guidance and instruction.

Date _____

Name of customer (block letters) _____

Signature of customer _____

Return of documentation

Please return the completed checklist to:

Convotherm Elektrogeräte GmbH
Ovens & Advanced Cooking EMEA
Manitowoc Foodservice
After Sales Service
Talstraße 35
82436 Eglfing
Germany

CONVOTHERM ELEKTROGERÄTE GMBH, OVENS & ADVANCED COOKING EMEA, MANITOWOC FOODSERVICE,
TALSTRASSE 35, 82436 EGLFING | GERMANY, T +49(0)8847 67-0, F +49(0)8847 414
WWW.CONVOTHERM.COM, WWW.MANITOWOCFOODSERVICE.COM

Combi steamer
Convotherm 4

Serial no.
Item no.
Order no.

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