

Convotherm maxx

just right



Combi oven

Cmx eT 6.10 ES / Cmx eT 10.10 ES

Installation manual - Original, ENG

Advancing Your Ambitions

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1 General information

1.1 Environmental protection

Statement of principles

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

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

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

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

Environmental protection procedures

We observe the following procedures:

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

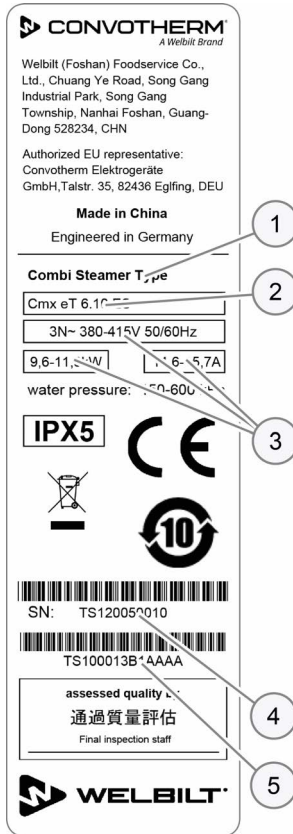
Join us in our commitment to protect the environment.

1.2 Identifying your combi oven

Position of type plate

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

Layout and structure of the type plate



Item	Name	
1	Name of appliance Combi Oven	
	Trade name	
	Element	Meaning
	Cmx	Convotherm maxx appliance series
	eT	easyTouch controls
2	numbers xx.yy	Appliance size
	ES	Electric appliance with water injection
	-N	for appliances with an NSK certificate
	Electrical values	
	Serial number	
3	Element	Meaning
	Heating method	Electric appliance (T)
	Steam generation method	<ul style="list-style-type: none"> Injection (S)
	Appliance size	<ul style="list-style-type: none"> 6.10 (1) 10.10 (3)
	Year of manufacture	<ul style="list-style-type: none"> 2020 (20) 2021 (21) ...
	Month of manufacture	<ul style="list-style-type: none"> January (01) February (02) March (03) ...
	Sequential number	4 digits
	Part number	

1.3 Structure of customer documentation

Contents of the appliance documentation

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

Documentation for accessories

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

1.4 About this installation manual

Who should read this manual

Name of target group	Tasks
Start-up engineer (Service engineer)	<ul style="list-style-type: none">▪ Overall responsibility for putting the combi oven into service▪ Instructing the user
Owner of the combi oven or owner's member of staff who is responsible for the appliance and for the operating personnel	<ul style="list-style-type: none">▪ Made aware of all safety-related functions and devices of the combi oven by the start-up engineer▪ Instructed by the start-up engineer on how to operate the appliance▪ Provides assistance as instructed with conveying the appliance within the establishment and setting up the appliance. See 'Owner obligations' on page 15 for further details
Equipment mover	Conveying within the establishment
Service engineer	<ul style="list-style-type: none">▪ Setting up the appliance▪ Installing the fully automatic oven cleaning system▪ Putting the appliance into service and removing the appliance from service
Electrical installation engineer	<ul style="list-style-type: none">▪ Connecting the appliance to the building's electrical supply▪ Disconnecting the electrical connection
Plumber	<ul style="list-style-type: none">▪ Connecting the appliance to the building's water supply▪ Disconnecting the water connection▪ Connecting the appliance to the building's drain connection▪ Disconnecting the drain connection

Notation for decimal points

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

1.5 Essential reading relating to safety

Safety information in the customer documentation

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

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

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

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

Parts of this document that must be read without fail

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

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

- the chapter 'For your safety' on page 11
- the sections that describe the activity to be carried out

Danger symbol




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

Form of warning notices

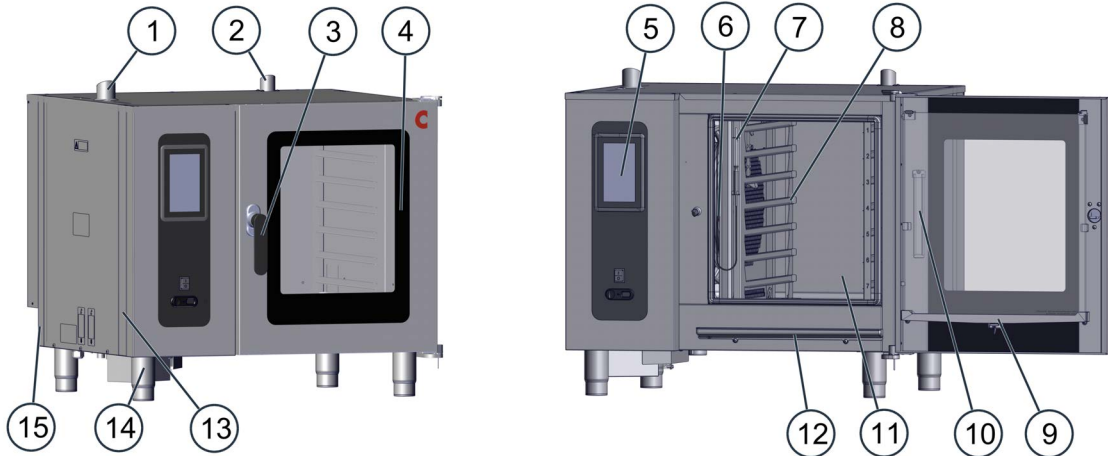
The warning signs are categorized according to the following hazard levels:

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

2 Design and function

2.1 Design and function of the combi oven

Components and function



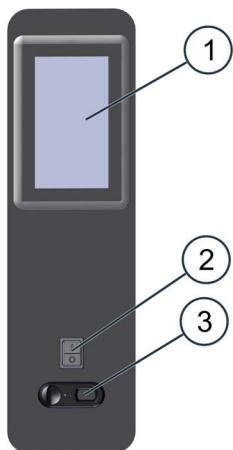
Item	Name	Function
1	Ventilation port	<ul style="list-style-type: none"> External air intake for removing the moisture from the cooking chamber Smooths out any pressure fluctuations in the cooking chamber
2	Air vent	Allows hot vapour to escape
3	Door handle	<ul style="list-style-type: none"> Opens and closes the appliance door First latch position after 5° Sure-shut function Antibacterial ("HygienicCare")
4	Appliance door	Closes the cooking chamber
5	Operating panel	Used for operating the appliance
6	Suction panel	<ul style="list-style-type: none"> Distributes the heat evenly inside the cooking chamber Separates the fan compartment from the cooking chamber Protects against touching the fan
7	Core temperature probe (optional)	Measures the core temperature of the food being cooked
8	Rack	Holds standard-sized food containers
9	Door drip tray	Collects condensate running down the inside of the appliance door
10	Oven light (LED)	Illuminates the cooking chamber
11	Cooking chamber	Contains the food during cooking operation
12	Appliance drip tray	Collects dripping liquid and condensate from the cooking chamber
13	Type plate	Identifies the appliance
14	Appliance feet	Can be adjusted in height to allow the appliance to be positioned horizontally
15	Network port (rear)	For connecting to the Internet

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 operating panel



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

3 For your safety

Purpose of this chapter

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

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

3.1 Basic safety code

Object of this safety code

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

Referring to the user manuals included in the customer documentation

Follow the instructions below:

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

Ground rules for installation

- Installation must comply with all national and regional laws and regulations and comply with the local regulations of the relevant utility companies and local authorities and with other relevant requirements.
- The installation must be carried out by an authorized and qualified service engineer.

Working with the combi oven

Follow the instructions below:

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

More on this ...

Related topics

▷ Intended use of your combi oven	12
▷ Warning signs on the combi oven	13
▷ Owner obligations	15
▷ Hazards arising from the appliance	16
▷ Safety devices	18
▷ Requirements to be met by personnel, working positions	20
▷ Personal protective equipment	22

3.2 Intended use of your combi oven

Intended use

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

Restrictions on use

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

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

Requirements to be met by personnel

- The combi oven must only be operated and installed by personnel who satisfy specific requirements. Please refer to 'Requirements to be met by personnel, working positions' on page 20 for the training and qualifications requirements.
- Personnel must be aware of the risks and regulations associated with handling heavy loads.

Requirements relating to the operating condition of the combi oven

- The combi oven must only be operated when all safety devices and protective equipment are fitted, in working order and fixed properly in place.
- The manufacturer regulations for operating and servicing the combi oven must be observed.
- The combi oven must not be loaded over the maximum permissible loading weight for the given model or shelf allowance; see 'Technical Data' on page 55.

Requirements relating to the operating environment of the combi oven

Specified operating environment for the combi oven

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

Specified properties of the installation location

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

Mandatory restrictions on use

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

Cleaning requirements

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

3.3 Warning signs on the combi oven

Fixed platform



A fixed platform for the combi oven is a permanently fixed worktable, a permanently fixed stand or a permanently fixed stacking kit. These platforms are not intended to be mobile and so are not equipped with features that would help to move them.



Positioning of warning signs



Obligatory warning signs

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

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

Range	Warning sign	Description
2		<p>Warning of hot food, hot food containers and hot liquids</p> <p>There is a risk of burns from hot food and hot food containers if food containers tip out of the shelf levels or food slips off food containers that are not held level. This risk is particularly high for shelf levels that lie above the sightline of the user.</p> <p>Spillage of hot liquid foods can result in scalds if the upper shelf levels are loaded with liquids or foods that produce liquid during cooking. Do not use shelf levels that lie above your sightline for liquid foodstuffs or food that will liquefy during cooking.</p>
2		<p>Warning of corrosive cleaning agents injected into oven</p> <p>There is a risk of chemical burns or irritation to skin, eyes and respiratory system from contact with sprayed cleaning agents and their vapours if the appliance door is opened during fully automatic cleaning (ConvoClean system).</p>

3.4 Owner obligations

Personnel for working at the combi oven

The owner must ensure that all work relating to conveying, setting up and installing the appliance, and taking the appliance out of service, is performed solely by qualified personnel as specified in 'Requirements to be met by personnel, working positions' on page 20.

Personnel for working on electrical parts

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

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

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

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

Rules for working on electrical parts

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

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

Before any intervention work, the appliance must be disconnected from the power supply, protective measures taken to ensure the power cannot be switched on again, and a check performed to verify that the appliance is actually de-energized.

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

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

3.5 Hazards arising from the appliance

General rules for working with the appliance

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

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

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

Moving heavy loads

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



Risk of injury from overexerting your body

When?

- When moving or lifting the appliance

How can I avoid the hazard?

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

Loss of stability of appliance

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



Risk of body parts being crushed if the appliance is dropped

When?

- When moving or lifting the appliance

How can I avoid the hazard?

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

Live parts

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



Risk of electric shock from live parts

Where?

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

How can I avoid the hazard?

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

Protective equipotential bonding not in place

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



Risk of electric shock from live parts

Where?

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

How can I avoid the hazard?

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

Contact with cleaning agents

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



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

When?

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

How can I avoid the hazard?

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

General hazards

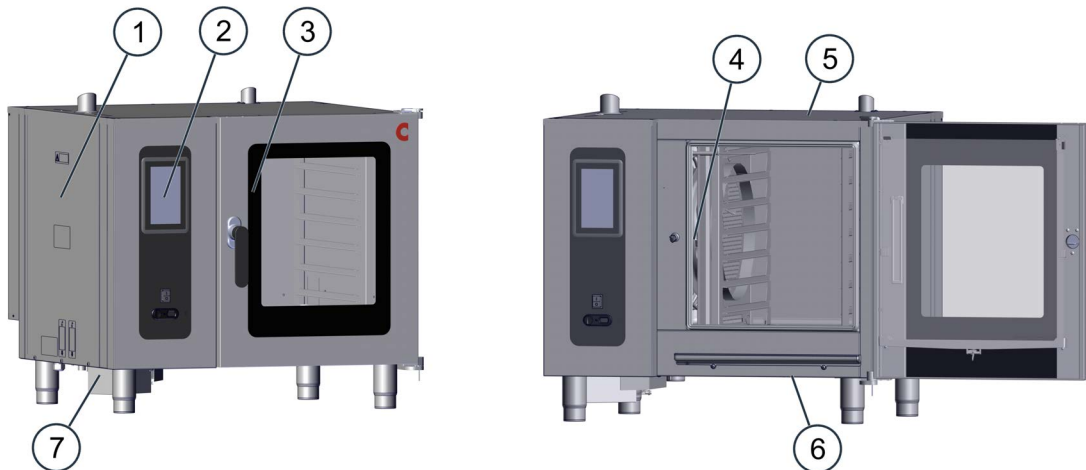
Over and above the hazards mentioned here, also be aware of the general dangers associated with the kitchen environment; please refer to the chapter 'For your safety' in the User manual.

3.6 Safety devices

Meaning

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

Position and function



Item	Safety device	Function	Check
1	Cover can only be removed using tool	Prevents live parts from being touched accidentally	Check that the cover is in place
2	Always use a tool to open the control panel	Prevents live parts from being touched accidentally	Ensure that the operating panel is in place
3	Appliance door with magnetic door switch and latch position	<p>Appliance door: Protects the user and outside environment from hot steam</p> <p>Magnetic door switch (electrical door sensor):</p> <ul style="list-style-type: none"> ▪ When the appliance door is opened, the switch stops: <ul style="list-style-type: none"> ▪ rotation of the fan wheel (comes to a stop after a few seconds) ▪ operation of the heating element ▪ Distribution of the cleaning products by the fully automatic oven cleaning system ▪ Prompt to close the appliance door <p>Latch position at opening angle of 5°: Prevents scalding of user's face and hands from escaping steam</p>	<p>Check the door pane regularly for scratches, cracks, indentations etc. and replace it if any are found</p> <p>Check magnetic door switch at low temperature</p> <p>Action:</p> <ul style="list-style-type: none"> ▪ Open the appliance door fully ▪ Press Start <p>Result: Motor must not start up.</p> <p>When appliance is at low temperature, check door positions as described in 'Opening and closing the appliance door safely' in the user manual</p>
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 'Removing and fitting the suction panel' in the user manual for further details

Item	Safety device	Function	Check
5	Cover can only be removed using tool	Prevents live parts from being touched accidentally	Check that the cover is in place
6	Cover can only be removed using tool	Prevents live parts from being touched accidentally	Check that the cover is in place
7	Circulation pump cover	Prevents access to the moving pump wheel	Check that cover is fitted.
8 (no picture)	Safety thermostat in the 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)
9 (no picture)	Restart after power failure in case cleaning agent was left in the appliance	Restarts fully automatic oven cleaning in a defined state after power failure	None
10 (installed by customer)	Disconnecter	<ul style="list-style-type: none"> ▪ Installed by the customer close to the appliance; easily visible and accessible, all-pole action, minimum contact separation 3 mm. ▪ Used to disconnect the appliance from the power supply during cleaning, repair and servicing work and in a hazardous situation 	Action: <ul style="list-style-type: none"> ▪ Trip the disconnecter ▪ Make sure that there is no live voltage at the mains supply connecting terminals

3.7 Requirements to be met by personnel, working positions

Requirements to be met by personnel

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

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

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

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

3.8 Personal protective equipment

Moving and setting up the appliance

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

Installation, putting into service and removal from service

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

4 Transportation

4.1 Conveying the appliance to the installation location

Space required for conveying the appliance

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

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

		6.10	10.10
Width	[mm]	1060	1060
Height	[mm]	1070	1340
Depth	[mm]	960	960

Load bearing capability for conveying the appliance

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

Refer to the weight of the appliance including packaging to determine the minimum working load limit of handling equipment; see 'Dimensions and weights' 'Technical data' on page 55.

Conveying the appliance to the installation location for the first time

Please observe the following points when conveying the appliance:

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

4.2 Preparing to unpack

Preparing to unpack

Perform the following tasks before unpacking the appliance:

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

4.3 Scope of delivery

Appliance and Accessories

The following parts are supplied:

- 1x combi oven
- 1x left-hand rack
- 1x right-hand rack
- 1x empty canister (10 Litres) for cleaning agent
- 1x flat bend for installing the drain connection

Documentation

The following documents are supplied with the appliance:

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

5 Setting up the appliance

5.1 Adjacent systems

Dealing with the discharged air

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

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

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

- For guidance on the minimum vertical clearance, see 'Requirements for the installation location' on page 26.
- Type of air-vent system
- the nature of the ceiling in the installation location

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

In addition, please observe the following regulations:

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

5.2 Requirements for the installation location

Meaning

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

Regulations for setting up the appliance

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.

Rules for setting up the appliance safely

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

- Compliance with the operating conditions must be possible. For operating conditions, see 'Requirements relating to the operating environment of the combi oven'.
- 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 25 and the minimum space required for the appliance.
- Heat sources in the vicinity must lie at a minimum distance of 500 mm.
- 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 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.
- Do not install the appliance directly under a fire alarm or sprinkler system. Fire alarm installations and sprinkler systems must be set up to handle the level of steam and vapour expected to escape from the appliance.
- It must be possible to set up the supporting structure for the appliance (worktable, stand or stacking kit) in the installation position so that it cannot tip over or slide about. The supporting surface must comply with requirements.

Requirements for the subfloor

The subfloor must have the following properties:

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

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

- Weight of your combi oven when empty
- Maximum permissible loading weight
- Maximum weight of cleaning agents
- Weight of stand or worktable

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

		6.10	10.10
Weight of combi oven when empty	[kg]	See weight excluding packaging in 'Technical data' on page 55	
Maximum permissible loading weight	[kg]	30	50
Maximum weight of cleaning agents	[kg]	20	20
Weight of stand (depends on model)	[kg]	20 - 50	20 - 50

Actual space requirements

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

For the distance that is actually needed between the top of the combi oven and the ceiling, please refer to the topic 'Adjacent systems' on page 25.

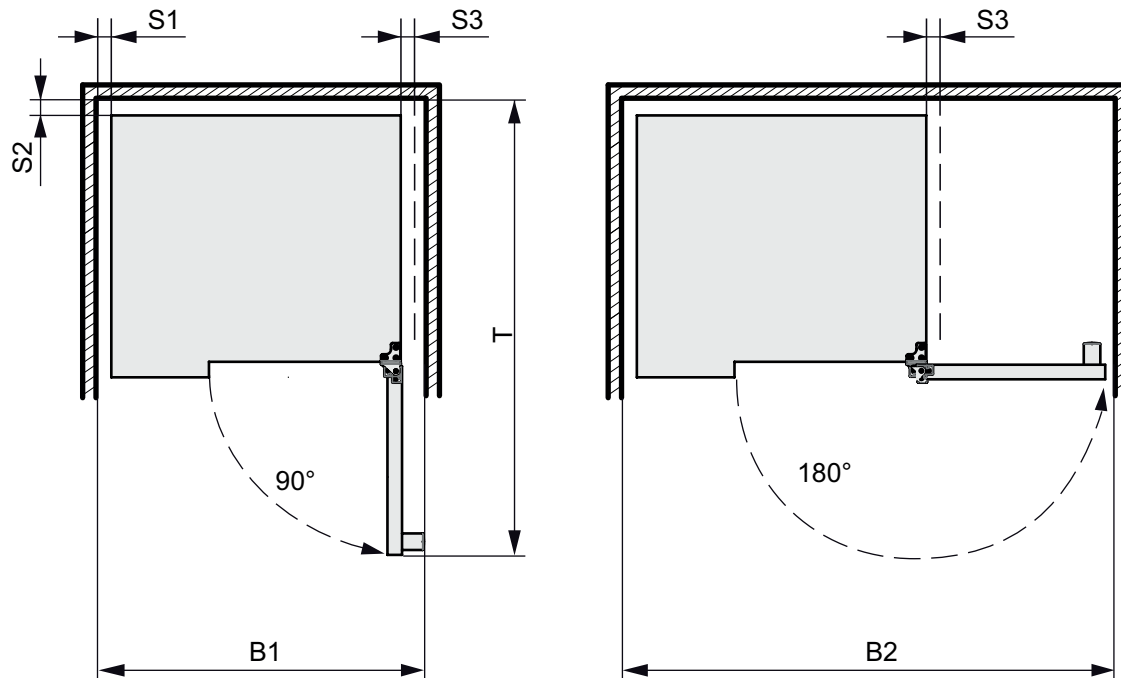
Larger wall gaps are generally recommended to provide access for servicing.

In the installation location, the following parts must not be covered, obstructed or blocked (see also 'Design and function of the combi oven' on page 9):

- Air vent on the top of the appliance
- Ventilation port on the top of the appliance

Space required - width and depth

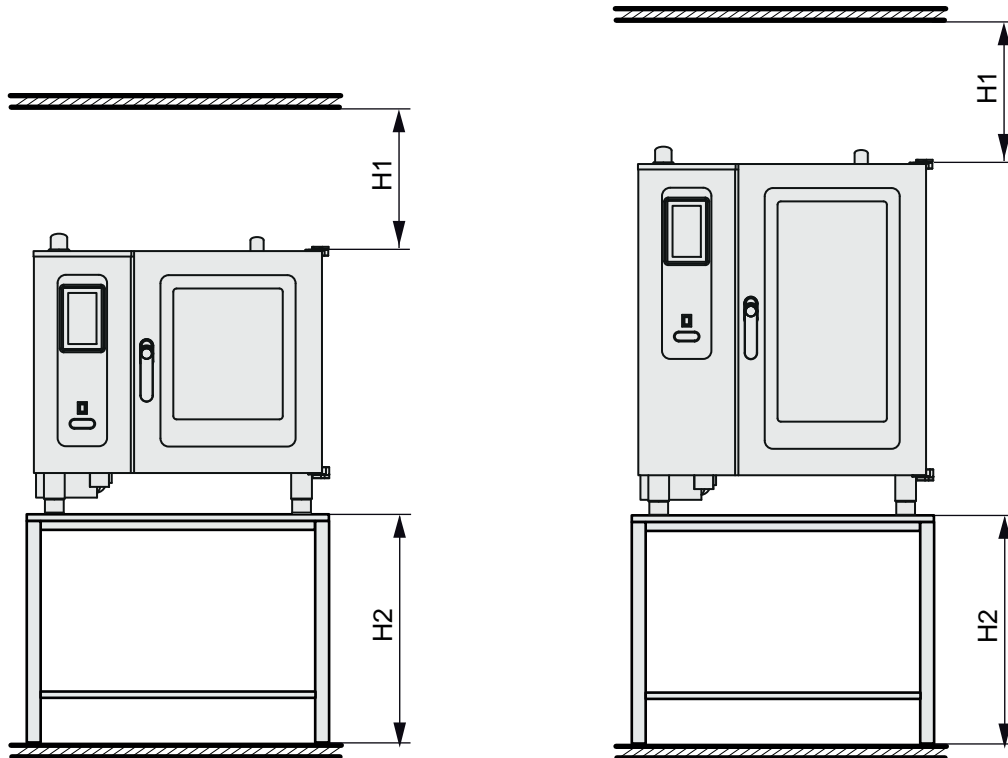
The following diagram and table show the space required for the appliance for different installation and operating situations. They also show the minimum horizontal distances from adjacent walls and surfaces. The safety clearances on the left, right and rear must always be complied with.



Meaning		
B1	Width requirement, appliance door open at 90°	[mm] 1019
B2	Width requirement, appliance door open at 180°	[mm] 1512
T	Depth requirement when opening the appliance door	[mm] 1399
S1	Safety clearance on left-hand side	[mm] 50
S2	Safety clearance at rear	[mm] 45
S3	Safety clearance on right-hand side	[mm] 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 ventilation system, vapour extractor hood etc.) when designing the particular clearance needed between the top of the appliance and the ceiling. In this context, the vertical distance H1 must be understood as a guide value for the minimum vertical clearance.

Meaning		6.10	10.10
H1	Guide value for the minimum vertical clearance	[mm] 500	500
H2	Installation height	[mm] 200 - 900	200 - 900

5.3 Taking the appliance off the pallet



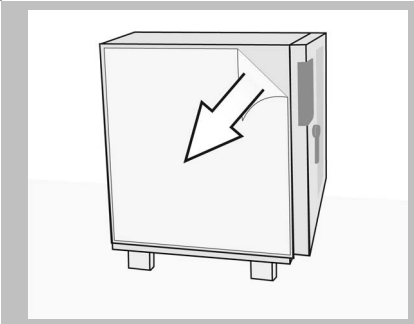
⚠ Rules for lifting the appliance safely

Observe the following rules to prevent the appliance toppling over:

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

Using lifting straps to take the appliance off the pallet

The weight of your appliance is given under 'Technical Data' on page 55.

- | | | |
|----|--|--|
| 1. |  | Attach the lifting straps to the appliance feet. |
| 2. |  | To prevent it slipping off the pallet, the combi oven is held in place by studs on the pallet that extend into the appliance feet.
You therefore need to lift the appliance off the pallet evenly by lifting all four appliance feet at once before placing the appliance in its installation location. |
| 3. |  | Remove the protective plastic from the combi oven. |

5.4 Setting up the appliance on a worktable

⚠ Rules for setting up the appliance safely

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

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

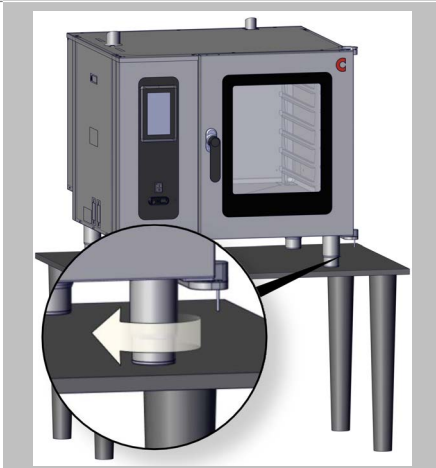
Setting up the appliance on a worktable

1.



Position the appliance on the worktable.

2.



Ensure the appliance is horizontal by adjusting the height of the appliance feet.

Use a spirit level for this task.

The absolute tilt of the appliance in operation must not exceed max. 0.2° (0.3 %; 3 mm).

5.5 Setting up the appliance on a stand

⚠ Rules for setting up the appliance safely

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

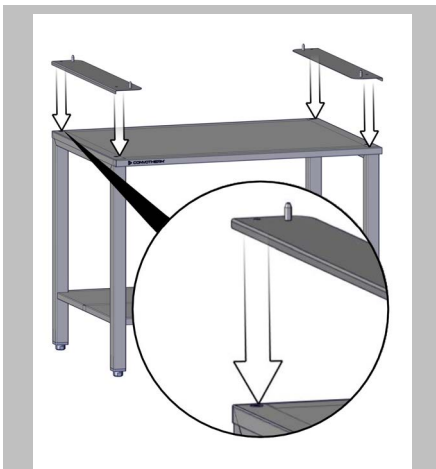
- It must be possible to set up the stand in the installation position so that it cannot tip over or slide about. The supporting surface must comply with requirements.
- When setting up the appliance on a stand, it must be fixed using two adapter plates (to be ordered separately):

The following rules must be observed to meet hygiene standards:

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

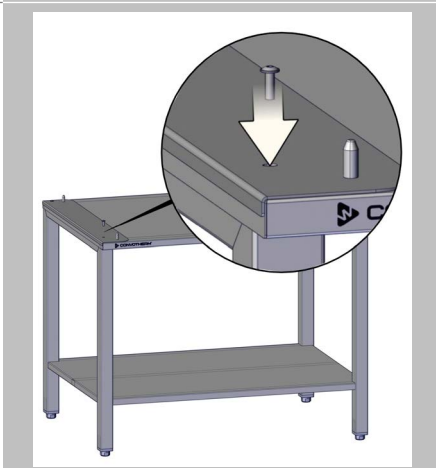
Setting up the appliance on a stand

1.



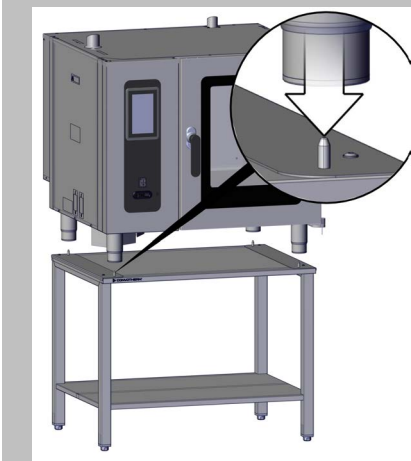
Place the two adapter plates on the stand, with the locating pins pointing upwards.

2.



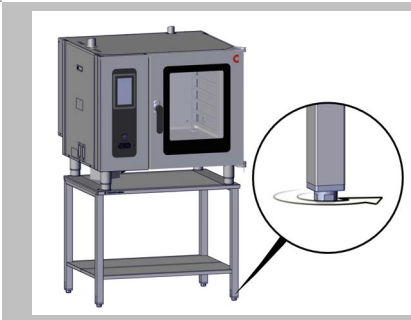
Screw the two adapter plates to the stand using two socket screws each.

3.



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

4.



Ensure the stand is horizontal by adjusting the height of the feet.
Use a spirit level for this task.
The absolute tilt of the appliance in operation must not exceed max. 0.2° (0.3 %; 3 mm).

5.6 Setting up the appliance 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 requirements.
- For appliances on a wheeled supporting structure, a retaining device must be connected to limit the range of movement of the assembly (supporting structure plus appliance) at the customer's site. The maximum distance that the supporting structure 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.
- It must be possible to lock the wheels on the supporting structure

The following rules must be observed to meet hygiene standards:

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

Setting up the appliance on a wheeled stand

Set up and install the appliance in accordance with the separate fitting and installation instructions.

5.7 Setting up appliances in the stacking kit

⚠ Rules for installing the appliances safely in the stacking kit

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

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

Installing the appliances in the stacking kit

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

6 Installation

6.1 Electrical installation

6.1.1 Planning the electrical installation

Meaning

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

Rules for safe electrical installation of the appliance

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

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

Regulations for the electrical installation

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

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

Equipment provided by customer and electrical installation regulations

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

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

Recommended residual-current device

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

Use a suitable RCD for the rated voltage:

Rated voltage

3~ 200 V 50/60 Hz

3~ 220-240V 50/60Hz

3N~ 380-415V 50/60Hz

Recommended residual-current device

Type A

Optional residual-current device

Type B

Properties of the residual-current device

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

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

Mains supply connection

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

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

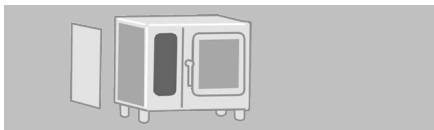

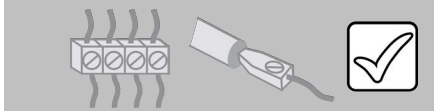
6.1.2 Carrying out the electrical installation

Requirements

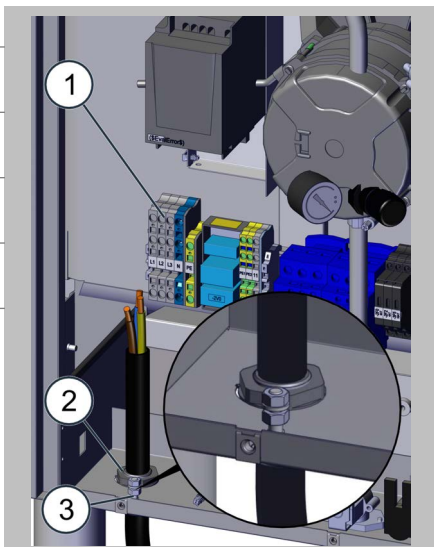
Check that the following requirement has been met:

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

Checking the supply ratings and electrical connections

- | | | |
|----|---|--|
| 1. |  | <p>Remove the side panel from the appliance.
The circuit diagram and spare parts list are located in the wiring compartment.</p> |
| 2. |  | <p>Check that the electrical supply ratings on the type plate (see 'Identifying your combi oven' on page 6) match the figures for the building's power supply and those given in the circuit diagram. It is only permitted to connect the appliance if all these values tally with each other.</p> |
| 3. |  | <p>Check all screw connections and terminals on the appliance.
The connections may have worked loose during transport.</p> |

Carrying out the electrical installation

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

6.1.3 Connecting the water-treatment filter monitor


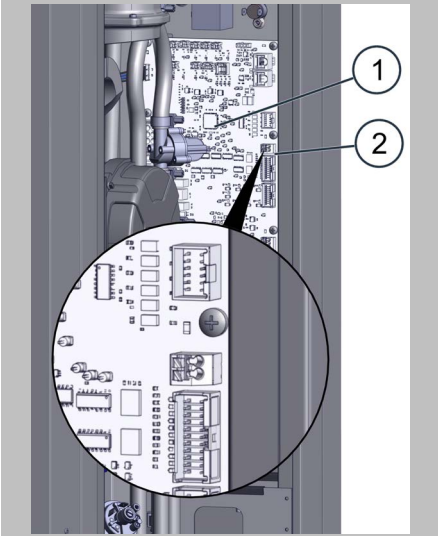

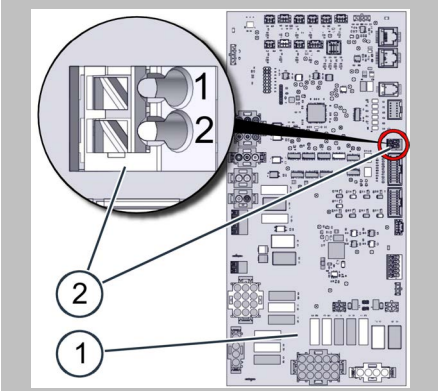
Purpose of the water-treatment filter monitor



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

Accessories required

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

Connecting the water-treatment filter monitor

1.  Disconnect the combi oven from the power supply.
2.  Remove the side panel from the combi oven in order to access terminal block X33 (2) on the system interface board (SIB) (1) in the area behind the operating panel.
3.  Take the connecting cable for monitoring the water-treatment filter to the SIB and fix it in the wiring compartment, e.g. using cable ties to attach it to an existing wiring harness.
4.  Connect the connecting cable to the combi oven in accordance with the PIN assignment shown below.

PIN	Assignment
1	Signal
2	GND
5.  Refit the side panel on the combi oven.
6.  Put the combi oven and water-treatment filter monitor into operation.

6.2 Network connection

6.2.1 Planning the network connection

Significance

Safe and reliable operation of the appliance depends on access to the Internet, and therefore it is crucial to that the network connection is installed carefully and correctly.

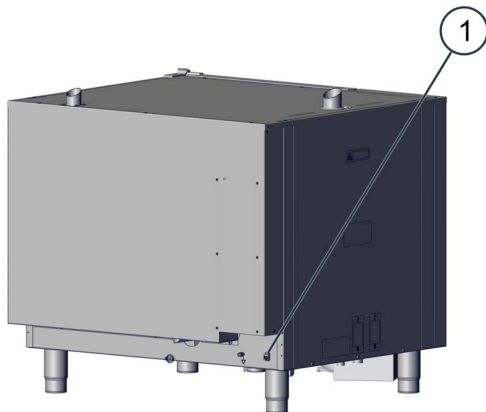
Contact your Service partner with regard to this matter.

Customer-installed equipment and rules relating to the network connection

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

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

Position of the network port

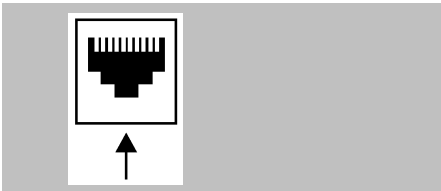
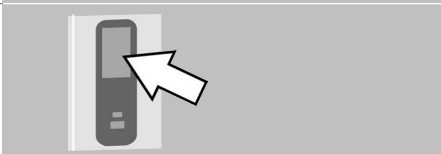


Item	Name	Function
1	RJ45 network socket	Network port on the rear of the combi oven



6.2.2 Connecting to the network

Installation procedure

Follow the steps below to establish an Internet connection:

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

Checking the network connection

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

6.3 Water connection

6.3.1 Water supply

Regulations for the water connection

Make sure that you comply with all local and national regulations relating to the water connection. In particular these include:

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

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

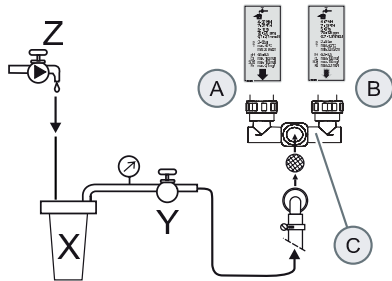
The appliance can be connected to the water supply using a flexible DN10 water supply pipe to DIN EN 61770 with a 3/4" screw connection.

Water quality and water hardness

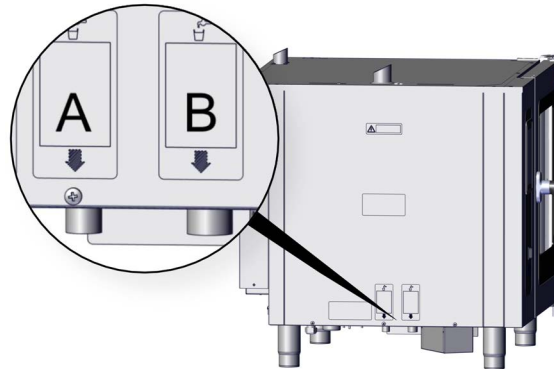
- Find out the water quality and water hardness from your local water supply company, or test the water quality as described in 'Testing the water quality' on page 44.
- Information on the required drinking water quality and required water pressure is given under 'Technical Data' on page 55.
- If necessary, 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 44 to ensure that after water treatment, the water meets the specified quality values.

Connection diagram without water treatment

Connection diagram



Connections on the appliance

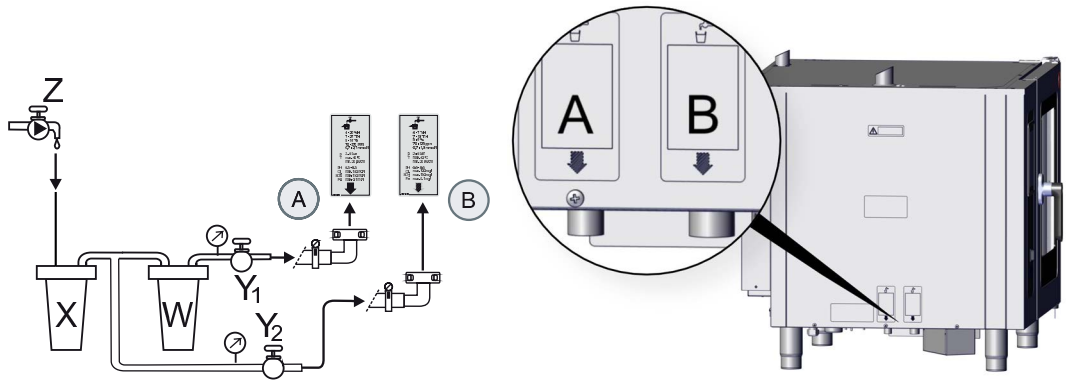


Item	Name	Explanation
A	Water-supply connection for water injection	Water quality, see 'Technical data' on page 55
B	Water-supply connection for cleaning	Water quality, see 'Technical data' on page 55
C	Water distributor	-
Z	Customer water pipe	Water quality: Drinking water
X	0.08 mm sediment filter	A 0.08 mm sediment filter must be installed if the water has a high level of impurity.
Y	Shut-off device	Water tap

Connection diagram with water treatment



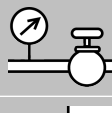
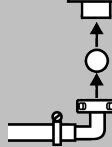

Connection diagram

Connections on the appliance

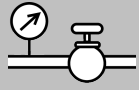



Item	Name	Explanation
A	Water-supply connection for water injection	Water quality, see 'Technical data' on page 55
B	Water-supply connection for cleaning	Water quality, see 'Technical data' on page 55
Z	Customer water pipe	Water quality: Drinking water
X	0.08 mm sediment filter	A 0.08 mm sediment filter must be installed if the water has a high level of impurity.
W	Water treatment for softening the water to the required soft water quality	Recommendation: Partial demineralization cartridge
Y ₁ /Y ₂	Shut-off devices	Water tap

Installing the water supply in accordance with the connection diagram

1.  Flush through the customer's water supply pipe (Z).
2.  Fit the sediment filter (X) and, if necessary, a water treatment system (W).
3.  Fit a separate shut-off device for each appliance (Y or Y₁/Y₂).
4.  Connect the appliance as shown in the 'Connection drawing' on page 59.
5.  Rinse out the sediment filter under running water.

6 Installation

6.		Once the water supply has been installed, close the shut-off device.
7.		Inform the user about the service intervals for the filters, and the water treatment system if applicable.

6.3.2 Test the water quality

Materials required

You will need the following materials:

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

Test the water quality

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

Compare the measured values with the recommended values; see 'Technical data' on page 55.

6.3.3 Drain connection

⚠ Rules for safe installation of the drain connection

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

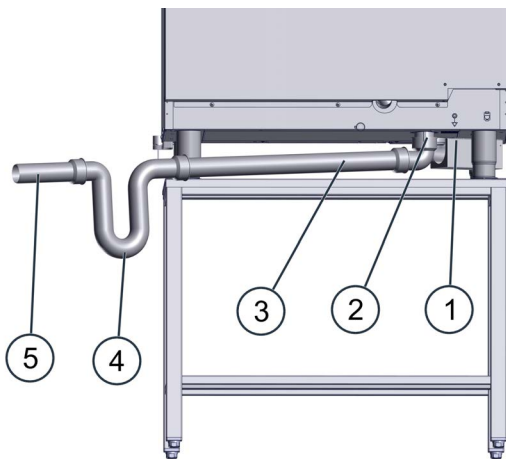
- There must be no restriction or reduction in the cross-section of the drain pipe.
- The slope of the drain pipe must equal min. 3.5% (2°).
- If more than one appliance is connected to one drain pipe, this pipe must be large enough to allow the wastewater to flow out unchecked.
- The appliance must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

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 waste water regulations

Connection diagram



Item	Name	Function
1	Safety overflow	<ul style="list-style-type: none"> ▪ On the appliance floor, connection point M, see 'Connection drawing' on page 59 ▪ Used to drain away water in the event of a fault (blockage).
2	Appliance drain	On the appliance floor, connection point C, see 'Connection drawing' on page 59
3	Drain pipe DN 50	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ Minimum internal diameter = 46 mm ▪ Slope min. 3.5% (2°)

Connecting the appliance to the drain

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

6.4 Installing the canister-based ConvoClean+ fully automatic oven cleaning system

6.4.1 Layout of the fully automatic oven cleaning system

Cleaning agent and rinse aid

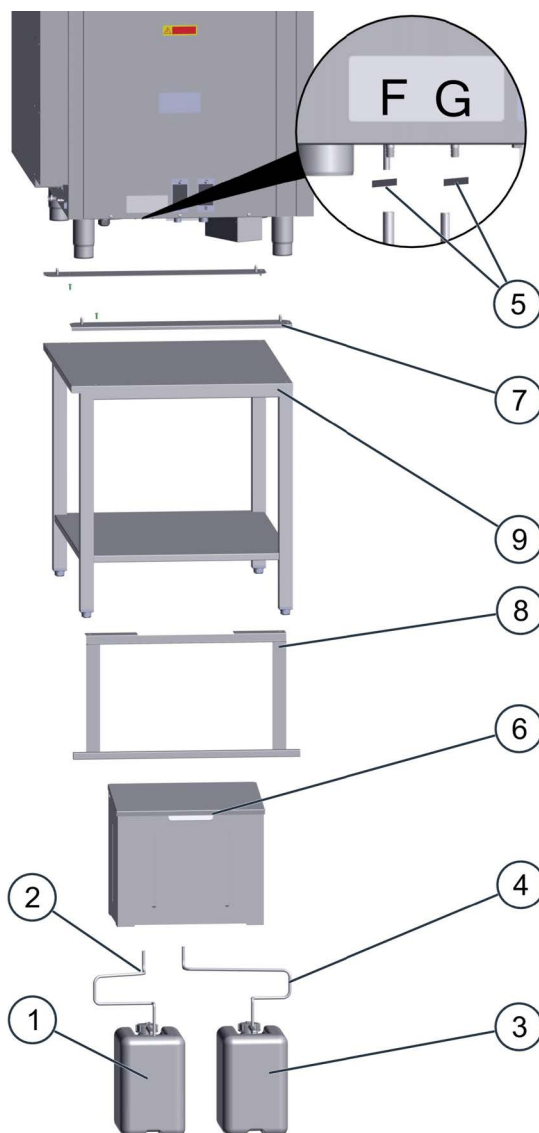
Use only the cleaning fluids specified here to clean the combi oven.

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

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

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

Layout of the fully automatic oven cleaning using connected canisters



Item	Name	Colour coding
F	Appliance connector for rinse aid supply	green (lettering)
G	Appliance connector for cleaning agent supply	red (lettering)
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	Canister containing ConvoClean new or ConvoClean forte	red (label)
4	Extractor tube for cleaning agent suction nozzle	red (tube)
5	D10 wire clip	-
6	Box for cleaning-fluid canisters (optional accessory)	-
7	Adapter plate (2 items) for mounting on the stand	-
8	Mounting frame for box (optional accessory)	-
9	Stand with threaded studs (optional accessory)	-

Box for cleaning-fluid canisters (optional accessory)

The box for the cleaning-fluid canisters (6) is an optional accessory for the combi oven available from the manufacturer.

- The box can be suspended from the stand (9) by means of the mounting brackets (7) and the mounting frame (8). The mounting frame (8) must be fitted by placing it over the studs on the stand (9). The weight of the combi oven placed on top of the mounting frame (8), plus the weight of the suspended box (6) and cleaning-fluid canisters, keeps the frame in place.
- The box can alternatively be screwed to a wall using the holes in the rear wall of the box. The mounting brackets (7) must be removed from the box first before wall-mounting. It is best to fit the box at a nominal distance above the floor to make it easier to clean the kitchen floor. When you fit the box, follow the requirements in 'Installation location for the cleaning agent and rinse aid canisters'.


Installation location for the cleaning-agent and rinse aid canisters

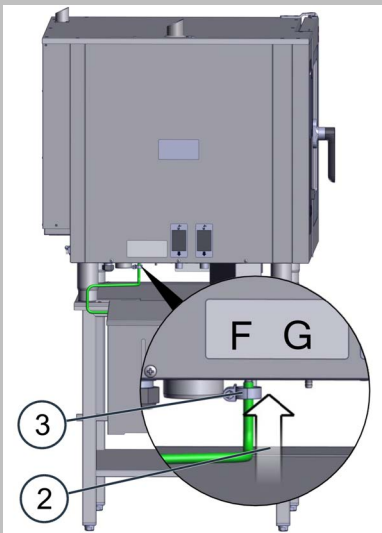
Install the canisters as follows:

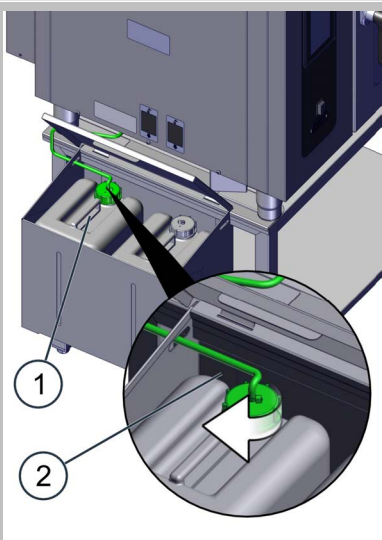
- The canisters should be located for easy access beside the appliance on a flat surface.
- The surface on which the canister sits must not lie above the level at which the appliance feet meet the appliance case.
- The surface on which the canister sits must not lie more than 1 metre below this level.

6.4.2 Connecting the fully automatic oven cleaning system

Connecting the fully automatic oven cleaning system to canisters

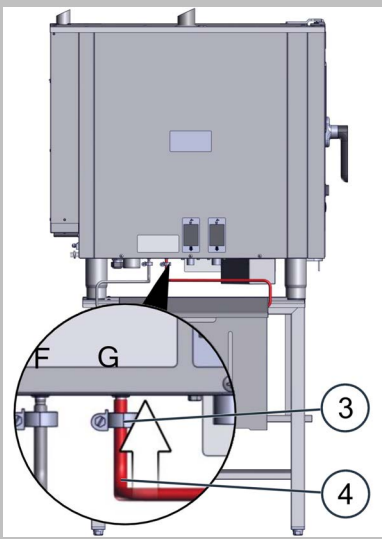
- 

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, and also the guidance on the canister label.
- 

2. Plug the green extractor tube (2) for the ConvoCare rinse aid onto the connector nipple of the rear tube fitting (F) and secure the tube in place with the wire clip (3) (see label for rinse-aid connection on the left-hand side of the appliance).
- 

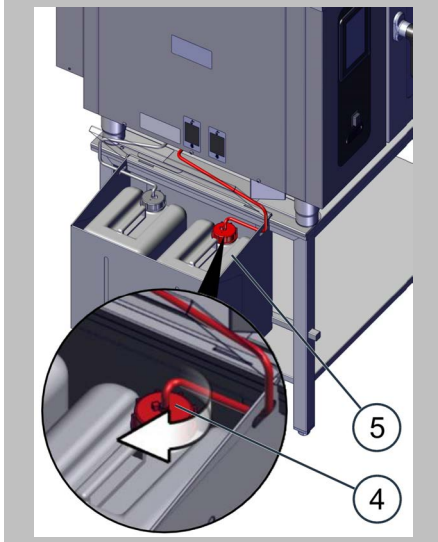
3. Insert the suction nozzle on the green extractor tube (2) into the rinse aid canister (1). There must be no kinks in the tube and the vent hole in the canister must be open and unblocked.

4.



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

5.



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

7 Putting into service

7.1 Procedure for putting the appliance into service

For your safety when using the combi oven

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

Checks prior to putting the appliance into service

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

- The appliance and fittings or accessories being used show no signs of damage.
- The appliance has been set up so that it cannot slide about or tip over; the requirements for the installation position and the area around the appliance have been met (see section 'Appliance' on page 25).
- Protective films, cardboard packaging and transport securing devices etc. have been removed completely.
- The cooking chamber contains no stored items or food nor any equipment other than necessary cooking accessories (e. g. food containers).
- The appliance is installed in accordance with the requirements in the chapter 'Installation' on page 34.
- The installed electrical power cables, water supply pipes and pipes for wastewater and cleaning products show no signs of damage, are fixed securely, are not leaking from any point and appear safe and in working order on visual inspection.
- The appliance was subjected to an individual electrical test (see below).
- All safety devices are in their designated position and are working correctly.
- All warning signs are in their designated position.
- The appliance and any accessories and fitting used have been cleaned properly.

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

Individual electrical test

The individual electrical test comprises the following three steps:

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




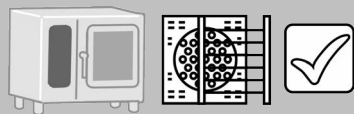
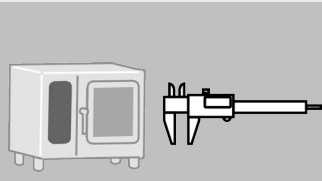


The individual electrical test must be repeated regularly in accordance with the legal regulations.

Rules for safe operation of the appliance


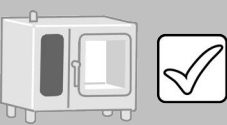


To avoid hazards, the following rules must be observed during operation:




- Air vent and ventilation port on the top of the appliance are not covered, adjusted or blocked.
- The racks must be fitted and attached securely.
- The food containers must be inserted correctly as stipulated in 'Positioning the cooking containers' in the user manual.
- The suction panel must be secured properly in place.

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: <ul style="list-style-type: none"> ▪ Suction panel ▪ Racks
5.		Measure the door gap at the front of the appliance, as specified in 'Measuring appliance gaps' on page 53: If any measured values lie outside the tolerance range, or the top edge of the appliance door is not flush with the top edge of the appliance case, the appliance door must be adjusted. Adjust the gap as described in the servicing documentation or contact the manufacturer.
6.		Switch on the combi oven.
7.		Make the following settings: <ul style="list-style-type: none"> ▪ Date ▪ Time ▪ Language

Putting the appliance into use

1.		Start the cooking operation with a cooking profile from Press&Go that contains the 'combi-steam' operating mode.
2.		Check the following points: <ul style="list-style-type: none"> ▪ Is the oven light illuminated? ▪ Is the fan running? ▪ Are there any leaks in the water supply and wastewater systems? ▪ Does the temperature rise inside the cooking chamber? ▪ Is the Internet connection working?
3.		Start the cooking operation with a cooking profile from Press&Go that contains the 'steam' operating mode.
4.		Check whether steam is being generated in the cooking chamber (Open the appliance door carefully).

5.		Use the pressure regulator to adjust the pressure to give the correct reading at the pressure gauge in the steam generation water supply: <ul style="list-style-type: none">▪ [kPa] 100 (1 bar)
6.		Start fully automatic oven cleaning using the cleaning profile for light soiling.
7.		Check that the cleaning process runs without an error message.

Customer guidance and instruction.

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

Warranty information

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

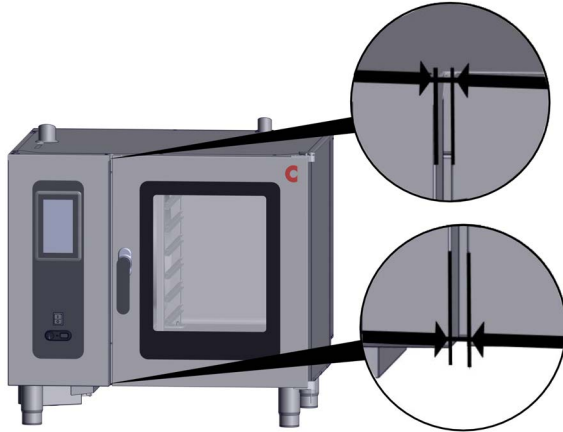
The warranty does not cover damage resulting from improper setup, installation, use, cleaning, use of cleaning agents, servicing, repair or descaling.

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

7.2 Measuring appliance gaps

Measuring appliance gaps

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



Name	Measurement condition	Tolerance range
Door gap at the front of the appliance	The appliance door is closed.	10 ± 1 mm

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

8 Removal from service and disposal

8.1 Removal from service and disposal

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

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

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

Requirements

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

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

Removal from service

To remove your appliance from service, follow the steps for setting up and installing your appliance in the reverse order (see the chapters Installation, on page 34 Moving the appliance on page 23 and Setting up the appliance on page 25).

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

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

- Disconnecting the water connection from the appliance
- Removing the drain connection from the appliance
- Disconnecting or isolating the electrical supply
- Removing the door catch
- Disconnecting the cleaning agent and rinse aid connections
- Correct disposal of the cleaning fluids in accordance with the EC safety datasheets and as instructed on the cleaning agent containers

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 and Connection diagrams

9.1 Technical data

Dimensions and weights

		6.10	10.10
Width			
Including packaging	[mm]	1060	1060
Main appliance unit excluding packaging	[mm]	875	875
Height			
Including packaging	[mm]	1070	1340
Main appliance unit excluding packaging (including appliance feet, excluding air vent and ventilation port)	[mm]	794	1066
Depth			
Including packaging	[mm]	960	960
Main appliance unit excluding packaging, appliance door closed	[mm]	797	797
Weight			
Including packaging	[kg]	136.5	161.5
Excluding packaging	[kg]	104	125.5
Safety clearances			
Rear	[mm]	45	45
Right	[mm]	50	50
Left (larger gap recommended for servicing)	[mm]	50	50
Top (for ventilation)	[mm]	500	500

Maximum permissible loading weight

The total weight of items placed on the shelf levels must not exceed the maximum permissible loading weight of the combi oven; details of loading weights are given in the user manual:

Maximum load		6.10	10.10
Per combi oven	[kg]	30	50
Per shelf	[kg]	15	15

Electrical connected load ratings

		6.10	10.10
3~ 200 V 50/60 Hz (3/PE)			
Rated power consumption	[kW]	10.5	18.9
Convection power	[kW]	10.5 @200V	18.9 @200V
Motor power	[kW]	0.35	0.35
Rated current	[A]	30.3	54.6
Fuse rating	[A]	35	63
Protective earth current	[mA]	6.6	6.6
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length	[mm ²]	4G6	4G16
Recommended residual-current device	Type	A	A
Optional residual-current device	Type	B	B
3~ 220-240V 50/60Hz (3/PE)			
Rated power consumption	[kW]	9.6 - 11.3	17.2 - 20.4
Convection power	[kW]	10.5 @230V	18.9 @230V
Motor power	[kW]	0.35	0.35
Rated current	[A]	25.2 - 27.2	45.1 - 49.1
Fuse rating	[A]	35	50
Protective earth current	[mA]	6.6	6.6
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length	[mm ²]	4G6	4G10
Recommended residual-current device	Type	A	A
Optional residual-current device	Type	B	B
3N~ 380-415V 50/60Hz (3/N/PE)			
Rated power consumption	[kW]	9.6 - 11.3	17.2 - 20.4
Convection power	[kW]	10.5 @230V	18.9 @230V
Motor power	[kW]	0.35	0.35
Rated current	[A]	14.6 - 15.7	26.1 - 28.4
Fuse rating	[A]	16	32
Protective earth current	[mA]	6.14	6.14
Recommended conductor cross-section for wires laid uncovered in air up to 5 m in length	[mm ²]	5G4	5G6
Recommended residual-current device	Type	A	A
Optional residual-current device	Type	B	B

Dissipated heat

With appliance door closed, in accordance with VDI 2052		6.10	10.10
Latent heat	[kJ/h]	7128	12636
	[kW]	1.98	3.51
Sensible heat	[kJ/h]	4752	8424
	[kW]	1.32	2.34

Water connection

Water supply (cold only)		
Water supply		2 x G 3/4" fixed connection, optionally including connecting pipe (min. DN13 / 1/2")
Flow pressure	[kPa]	150 - 600 (1.5 - 6 bar)
Pressure gauge in the water supply	[kPa]	100 (1 bar)
Water drain		
Model		Fixed connection (recommended) or funnel waste trap
Type	DN	50
Waste water temperature	[°C]	max. 80
Slope for waste-water pipe		min. 3.5% (2°)
Safety overflow	[mm]	98 x 43 mm

Water quality

Water hardness for water connection (A) for water injection		
Water quality		<ul style="list-style-type: none"> ▪ Drinking water ▪ Soft water
German degrees of hardness (general hardness: GH)	[°dH]	4 - 7
French degrees of hardness	[TH]	7 - 13
English degrees of hardness	[°e]	5 - 9
International	[ppm]	70 - 125
Chemical	[mmol/l]	0.7 - 1.3
Water hardness for water connection (B) for cleaning system		
Water quality		<ul style="list-style-type: none"> ▪ Drinking water ▪ Hard water (or soft water; see above for specification)
German degrees of hardness (general hardness: GH)	[°dH]	4 - 20
French degrees of hardness	[TH]	7 - 35
English degrees of hardness	[°e]	5 - 25
International	[ppm]	70 - 360
Chemical	[mmol/l]	0.7 - 3.6
Properties		
Temperature	[°C]	max. 40
Electrical conductivity	[µS/cm]	min. 20
pH		6.5 - 8.5
Cl ⁻ (chloride)	[mg/l]	max. 60
Cl ₂ (free chlorine)	[mg/l]	max. 0.2
SO ₄ ²⁻ -(sulphate)	[mg/l]	max. 150
Fe (iron)	[mg/l]	max. 0.1
SiO ₂ (silicate)	[mg/l]	max. 13
NH ₂ Cl (monochloramine)	[mg/l]	max. 0.2

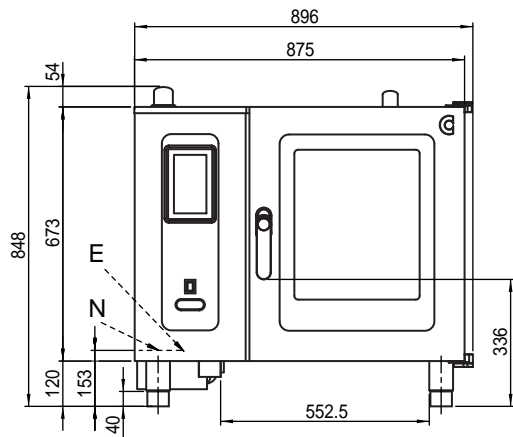
Water consumption, cooking and cleaning

Hard water and soft water	6.10	10.10
Average consumption including cleaning process [l/h]	7.3	10.1

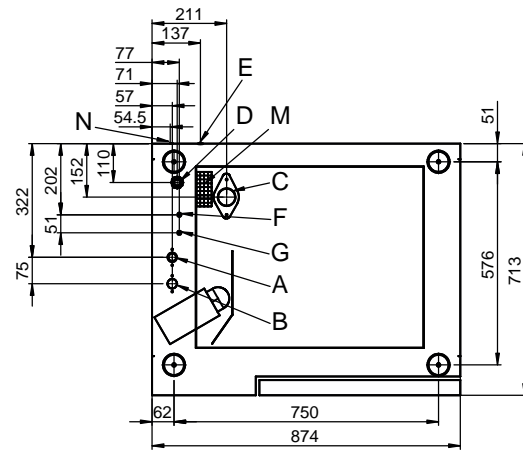
9.2 Connection diagrams

Dimensions and connection points for Cmx eT 6.10 ES

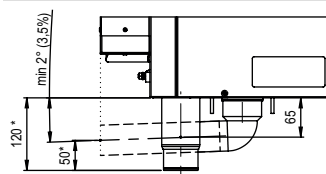
Front view



Connection points in appliance floor

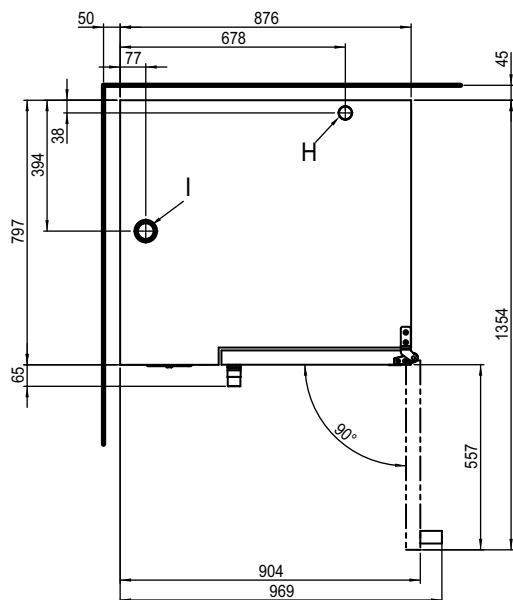


Detailed view of drain connection



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

View from above with wall clearances

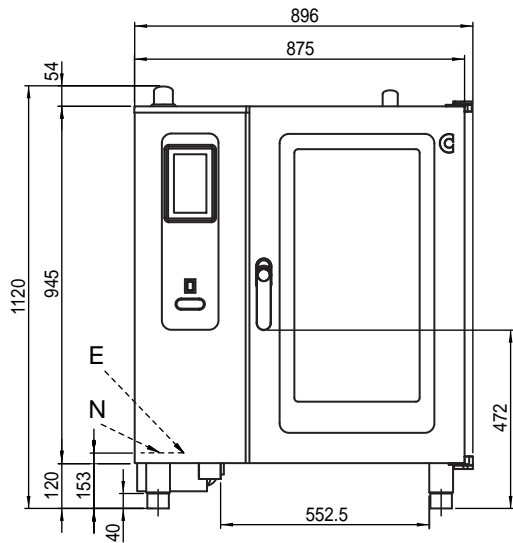


Meaning of labelled elements

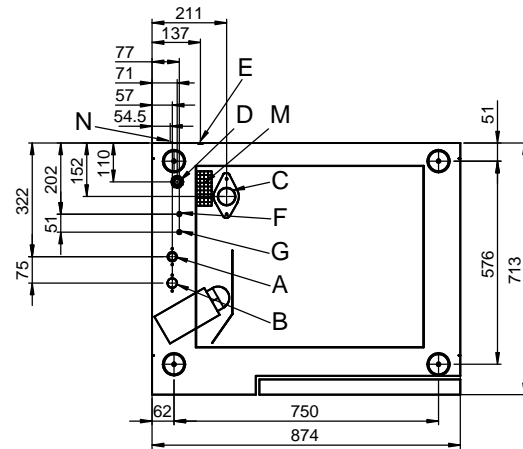
- A Water connection Soft water G 3/4"
- B Water connection Hard water G 3/4"
- C Drain connection DN 50
- D Electrical connection
- E Protective equipotential bonding system
- F Rinse-aid connection
- G Cleaning-agent connection
- H Air vent Ø 40 mm
- I Ventilation port Ø 50 mm
- M Safety overflow 98 x 43 mm
- N Network connection

Dimensions and connection points for Cmx eT 10.10 ES

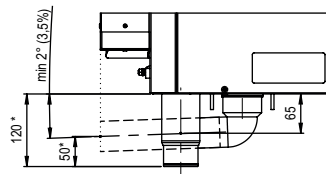
Front view



Connection points in appliance floor

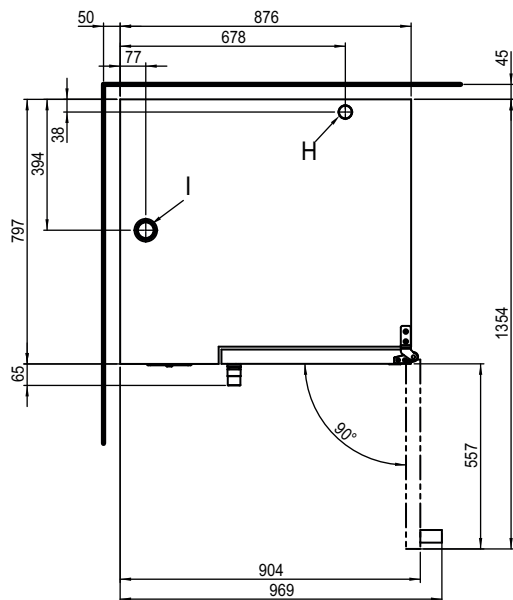


Detailed view of drain connection



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

View from above with wall clearances



Meaning of labelled elements

- A Water connection Soft water G 3/4"
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Engineered in Germany

Combi oven
Cmx eT 6.10 ES / Cmx eT 10.10 ES

Serial no.

Item no.

Order no.

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



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