Bartscher

Silversteam2 5230M - 5110M - 7110M - 10110M

116822 - 116826 - 116828 - 116831

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Original instruction manual

	**Read these instruction manual before using the appliance and keep it available at all times!**

This instruction manual contains information about installation, operation and maintenance of the appliance and constitutes an important source of information and reference guide. The knowledge of all operational and safety instructions included in this manual is a prerequisite for safe and proper handling of the appliance.

Read this instruction manual before you use the appliance and particularly before you start the appliance to prevent injury or damage. Incorrect use may cause damage.

All important information contained in the operating instructions must be available to the appropriate staff at all time. The operator shall be responsible for their availability.

In addition to the operating instructions, you must comply with the general, legal and other applicable regulations for occupational safety and environmental protection.

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1 Safety

This appliance has been manufactured in accordance with technical standards currently in force. However, the appliance may be a source of hazards if used improperly or contrary to its intended purpose. All persons using the appliance must consider information included in this instruction manual and observe safety instructions.

1.1 Explanation of Signal Words

Important safety instructions and warning information are indicated in this instruction manual with appropriate signal words. You must strictly follow the instructions, to prevent accidents, personal injuries and property damages.

DANGER!

The signal word **DANGER** warns against hazards that lead to severe injuries or death if the hazards are not avoided.

WARNING!

The signal word **WARNING** warns against hazards that may lead to moderate or severe injuries or death if the hazards are not avoided.

CAUTION!

The signal word **CAUTION** warns against hazards that may lead to light or moderate injuries if the hazards are not avoided.

IMPORTANT!

The signal word **IMPORTANT** indicates possible property damages, which may occur if safety instructions are not observed.

NOTE!

The symbol **NOTE** indicates subsequent information and guidelines for the user on usage of the appliance.

1.2 Safety instructions

Electrical Current

- Too high a mains voltage or incorrect installation may cause electric shock.
- The appliance may be connected only if data on the rating plate correspond with the mains voltage.
- To avoid short-circuit, the appliance should be kept dry.
- If there are malfunctions during operation, disconnect the appliance from the power supply.
- Do not touch the appliance's plug with wet hands.
- Never take hold of the appliance if it has fallen into water. Immediately disconnect the appliance from the power supply.
- Any repairs or housing opening may be carried out by professionals and relevant workshops only.
- Do not transport the appliance, holding it by the power cord.
- Do not allow the power cord to come into contact with heat sources or sharp edges.
- Do not bend, pinch nor knot the power cord.

- Always completely unwind the power cord.
- Never place the appliance or other objects on the power cord.
- Always take hold of the plug to disconnect the appliance from the power supply.
- Check the power cord regularly for damage. Do not use the appliance if the power cord is damaged. If this cable is damaged, it must be replaced by customer service or a qualified electrician in order to avoid dangers.

Flammable Materials

- Never subject the appliance to contact with high temperature sources, e.g.: oven, furnace, open flame, heat generating devices, etc.
- To avoid fire hazard, clean the appliance regularly.
- Do not cover the appliance with, e.g., aluminium foil or cloths.
- Use the appliance only with materials designated to this end and with correct temperature settings. Materials, groceries and left-overs remaining in the appliance may catch fire.
- Never use the appliance near flammable or inflammable materials, e.g.: petrol, spirit, alcohol, etc. High temperature triggers evaporation of these materials, and, as a result of contact with sources of ignition, an explosion may occur.
- In case of fire, disconnect the appliance from the power supply before attempting suitable fire-extinguishing actions.
- Never attempt to extinguish fire with water if the appliance is connected to the power supply. Following extinction of fire, ensure sufficient fresh air inflow.

Hot Surfaces

- Surfaces of the appliance become hot during operation. Burning hazard! High temperature remains for some time after switching the appliance off.
- Do not touch any hot surfaces of the appliance. Use the provided handling elements and holders.
- You may transport and clean the appliance after it cools down entirely.
- It is prohibited to sprinkle hot surfaces with cold water or flammable liquids.

Operator's responsibility

The operator is responsible for complying with the currently applicable laws, regulations, ordinances and existing national regulations on accident prevention, environmental protection, as well as the internal operation, operating and safety instructions that apply at the respective installation site.

Obligations of the operator:

- Operate the appliance and its components only in a technical condition that does not raise any objections, with functional protective and safety elements.
- Prepare risk assessment at work positions.
- Provide instruction and regular staff training. Pay special attention to and observe the section concerning safety and any safety hints.
- Provide suitable personal protective equipment (PPE)
- Observe the intervals of maintenance and cleaning.
- Document training/instructions, replacement of components.

Operating Personnel

- The appliance may only be operated by qualified personnel and trained specialist personnel.
- This appliance may not be operated by persons (including children) with limited physical, sensory or mental capabilities, nor by persons with limited experience and/or limited knowledge.
- Children should be supervised to ensure that they are not playing with or switching on the appliance.

Supervised Usage only

- Only supervised appliance may be used.
- Always remain in an immediate vicinity of the appliance.

Improper Use

- Unintended or prohibited use may cause damage to the appliance.
- The appliance may only be used when its technical condition is flawless and allows for safe operation.
- The appliance may only be used when all connections are executed according to rules of law in force.
- The appliance may only be used when it is clean.
- Use only original spare parts. Never attempt to repair the appliance on your own.
- Do not introduce any changes in the appliance nor modify it.

1.3 Intended Use

This appliance is only intended for use described in the operating instructions, with the supplied and approved components.

Any other use is considered against the intended purpose. The manufacturer shall not be liable for any damage due to unintended use. In such cases the responsible party shall only be the user/operator.

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The following is an intended purpose:

– Preparation of suitable food.

1.4 Unintended Use

An unintended use may lead to personal injuries or property damages caused by hazardous voltage, fire or high temperature. The appliance may only be used to perform tasks described in this instruction manual.

2 General information

2.1 Liability and Warranty

The appliance was built in accordance with the current state of the art and recognized technical safety principles. Nevertheless, during its use, there may be a threat to the health and life of the user or bystanders, or the danger of damage to the device or other assets. Warranty and liability claims for personal injury/property damage as well as defects at work are excluded if they can be attributed to one or more of the following causes:

- Use against the intended purpose
- Failure to follow/disregard the instructions and all related information
- Unauthorized structural or technical changes to the device
- Engaging insufficiently trained and insufficiently qualified personnel
- Operation with defective or incorrectly installed safety and protective devices
- Inadequate maintenance or cleaning
- Faults not fixed
- Use of prohibited media, cleaning agents, etc.
- Use of unauthorised spare parts
- Errors in operation or other misuse
- Disasters caused by foreign objects or force majeure
- Destruction of the type plate and stickers relevant for operation and safety

2.2 Copyright Protection

2.3 Declaration of Conformity

The appliance meets the currently applicable standards and guidelines of the European Union. We confirm the above in the EC Declaration of Conformity. We may provide relevant Declaration of Conformity upon request.

3 Transport, Packaging and Storage

3.1 Delivery Check

Immediately upon reception, check the delivery for completeness and possible shipping damage. In the case of visible transport damage refuse to accept the appliance or accept it conditionally. Mark and note the scope of damage in shipping documents/consignment list of the shipping company and lodge a complaint. Concealed damage must be reported immediately upon its discovery, as compensation claims may only be filed within applicable time limits.

If you find that parts or accessories missing, please contact our Customer Service Department.

3.2 Packaging

Do not dispose of the appliance cardboard box. It may be used to store the appliance when relocating or when shipping the appliance to our service point in the case of any damages.

The packaging and its elements are made of recyclable materials. Particularly, these are: plastic films and bags, cardboard box.

When disposing of the packaging, observe applicable domestic regulations. Recyclable packaging materials should be recycled.

3.3 Storage

Leave the packaging closed until installation of the appliance; observe external indications concerning method of placing and storage. Store the packaging in the following conditions only:

- in closed rooms;
- in dry and dust-free surrounding;
- away from aggressive agents;
- in a location protected against sunlight;
- in a location protected against mechanical shocks.

In the case of extended storage (over three months), make sure you check the condition of the packaging and the parts regularly. If needed, replace the packaging with a new one.

4 Technical Data

Version / characteristics of combi steamers 116822, 116826, 116828, 116831

- Series: Silversteam2
- Operating mode: electric
- Appliance connection: ready to plug in (116822) / 3NAC (116826, 116828, 116831)
- Functions:
  - forced air
  - steaming
  - combi steaming
  - low temperature thermal processing
  - reversing motor direction (fan wheels)
  - steam production by means of direct injection
- Temperature control: stepless
- Type of guide rails: crosswise
- Continuous operation
- Thermal core probe connection: side
- Vapour extractor
- Internal lighting
- LED display:
  - steaming
  - core temperature
  - temperature
  - time
- Control: knob
- Indicator lights: ON/OFF, temperature
- Features:
  - rounded cooking chamber
  - bearing rails can be detached
  - double door glazing
  - LED lighting in door
- Important indication: For water hardness exceeding 5° dH we expressly recommend using a suitable upstream water softener and keeping water pressure to maximum 3 bar.

4.1 Technical Specifications

Name:	**Combi steamer Silversteam2 5230M**
Art. No.:	**116822**
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	5
Guide rail format:	2/3 GN
Distance between guide rail pairs, in mm:	74
Temperature range, min.–max., in °C:	50 - 280
Time setting, from–to, in min.:	0 - 120
Number of thermal processing programmes:	1
Number of thermal processing phases:	1
Number of fans:	1
Stages of fan speed:	2
Water connection:	3/4“
Connected load:	3,3 kW | 230 V | 50 Hz
Dimensions (W x D x H), in mm:	635 x 775 x 680
Weight, in kg:	58,0

We reserve the right to implement technical modifications.

The set includes:

- 1 grate, 2/3 GN
- 1 tray, 2/3 GN
- 1 water supply hose

Name:	**Combi steamer Silversteam2 5110M**
Art. No.:	**116826**
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	5
Guide rail format:	1/1 GN | 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, min.–max., in °C:	50 - 280
Time setting, from–to, in min.:	0 - 120
Number of thermal processing programmes:	1
Number of thermal processing phases:	1
Number of fans:	1
Stages of fan speed:	2
Water connection:	3/4“
Connected load:	6,3 kW | 400 V | 50 Hz
Dimensions (W x D x H), in mm:	905 x 840 x 680
Weight, in kg:	87,0

We reserve the right to implement technical modifications.

The set includes:

- 1 grate, 1/1 GN
- 1 tray, 1/1 GN
- 1 water supply hose

Name:	**Combi steamer Silversteam2 7110M**
Art. No.:	**116828**
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	7
Guide rail format:	1/1 GN | 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, min.–max., in °C:	50 - 280
Time setting, from–to, in min.:	0 - 120
Number of thermal processing programmes:	1
Number of thermal processing phases:	1
Number of fans:	2
Stages of fan speed:	2
Water connection:	3/4“
Connected load:	9,6 kW | 400 V | 50 Hz
Dimensions (W x D x H), in mm:	905 x 840 x 860
Weight, in kg:	106,0

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We reserve the right to implement technical modifications.

The set includes:

- 1 grate, 1/1 GN
- 1 tray, 1/1 GN
- 1 water supply hose

Name:	**Combi steamer Silversteam2 10110M**
Art. No.:	**116831**
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	10
Guide rail format:	1/1 GN | 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, min.–max., in °C:	50 - 280
Time setting, from–to, in min.:	0 - 120
Number of thermal processing programmes:	1
Number of thermal processing phases:	1
Number of fans:	2
Stages of fan speed:	2
Water connection:	3/4“
Connected load:	12,6 kW | 400 V | 50 Hz
Dimensions (W x D x H), in mm:	905 x 840 x 1.055
Weight, in kg:	120,0

We reserve the right to implement technical modifications.

The set includes:

- 1 grate, 1/1 GN
- 1 tray, 1/1 GN
- 1 water supply hose

Protective Measures

The combi steamer is equipped with the following safety and protective mechanisms:

Protective thermostat in thermal processing chamber:

if temperature in the thermal processing chamber reaches 350°C, the thermostat interrupts the supply circuit of the appliance's heaters.

WARNING!

That protection must be reactivated by technical service personnel as its operation indicates that other elements must be inspected.

Appliance door contact switch:

interrupts the appliance operation after opening the door — either the heating system or the fan are switched off. When the appliance door is closed, the operation is resumed.

4.2 Functions of the Appliance

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The combi steamer is designed for preparation of food and keeping it warm with the use of suitable accessories. Manual operation provides for control of all thermal processing processes without unnecessary complications and according to needs.

4.3 List of Components of the Appliance

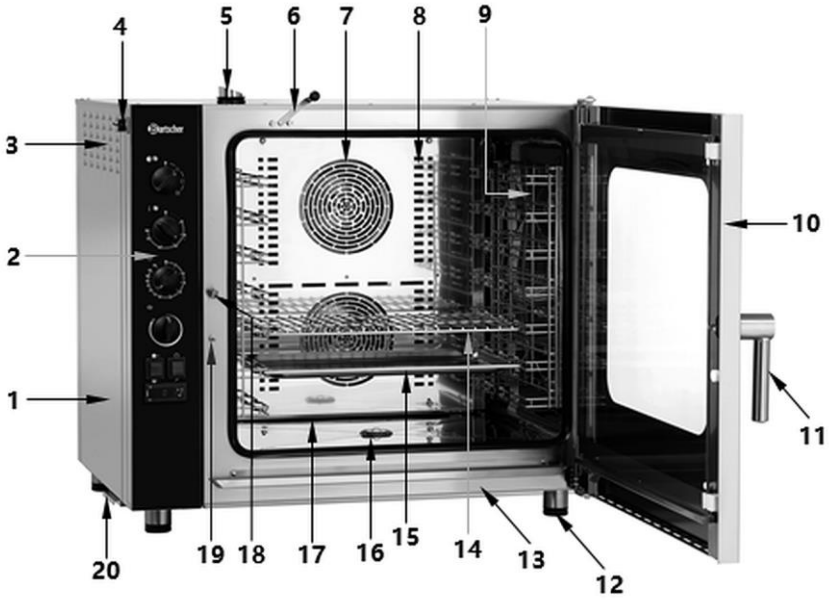

Fig. 1

1. Housing
2. Control panel
3. Ventilation openings
4. Thermal core probe connection
5. Vapour extraction
6. Humidity discharge valve
7. Fan (2 pcs)
8. Air control plate
9. Guide rails
10. Appliance door
11. Door handle
12. Height adjustable feet (4 pcs)
13. Drain tray
14. Grate
15. GN container
16. Drain
17. Thermal processing chamber
18. Door latch
19. Contact switch
20. Control panel ventilation filter

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5 Installation Instructions

5.1 Installation

CAUTION!

Incorrect installation, positioning, operation, maintenance or misuse of the appliance may lead to personal injury or property damage.

Positioning and installation, as well as repairs may be performed by authorised technical service only and in compliance with the applicable national law.

NOTE!

The manufacturer disclaims all liability and provides no warranty for damages, which may be attributed to non-observance of regulations or incorrect installation.

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Unpacking

Remove the external packaging (wooden crate and/or carton box) and recycle it according to regulations in force in the country of installation.

CAUTION!

Choking hazard!

Prevent children from accessing packaging materials, for instance: plastic bags and EPS elements.

Transport to Installation Room

Use protective clothing and use a forklift to move the appliance to the room where it is to be installed: To ensure proper transportation, forks should be inserted from the left-hand side or from the rear side, and NEVER from the front side (Fig. 2). We recommend that you always transport the appliance on a pallet.

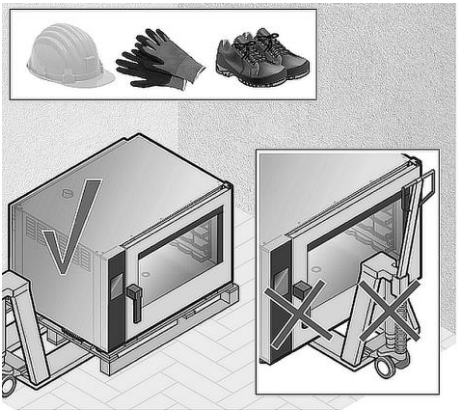

Fig. 2

Installation Room Requirements

The appliance is designed to operate indoors, and may not be used in open air.

The installation room (Fig. 3), in which the appliance is to be set up must:

- be well ventilated and not exposed to weather conditions;
- feature a smooth and perfectly level floor;
- feature a load-bearing capacity adequate for the weight of the appliance at maximum load;
- feature an ambient temperature exceeding +5°C;
- feature a relative humidity of maximum 70%;
- conform to workplace and plant safety regulations;
- not contain any explosive materials nor substances;
- be suitable for food preparation.

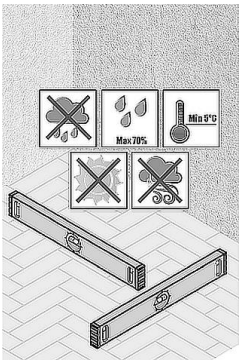

Fig. 3

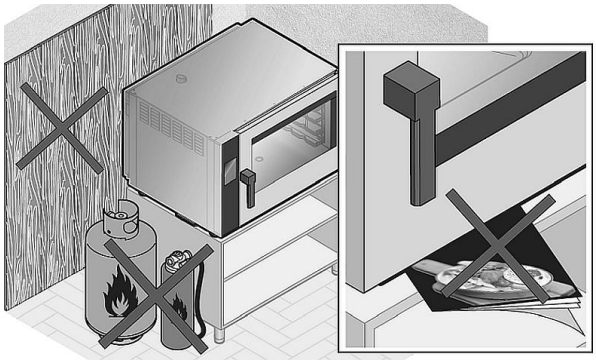

Fig. 4

When choosing an installation site, keep the following factors in mind (Figure 4):

- NEVER leave flammable, explosive nor heat-sensitive items near the appliance;
- NEVER place explosive items (e.g., gas cylinders nor pressurised cylinders) near the appliance, otherwise there is a risk of deflagration;
- DO NOT place objects (e.g., manuals, oven mitts, etc.) between the stove and the supporting surface;
- NEVER install the appliance near combustible nor heat-sensitive walls (e.g., made of wood). If this is not possible to avoid, use appropriate protective measures (e.g., heat-resistant foil) that will ensure keeping the wall temperature within the safe range (up to 60°C).

ATTENTION!

Observe fire safety regulations in force in the country of installation.

Appliance Preparation

- Prior to installation, check that all components required for installation are available and intact. If a component is missing or damaged, contact the manufacturer or dealer.

Removal of protective films (Fig. 5)

- Carefully remove protective film from the appliance. Remove any adhesive residue with a suitable solvent, without damaging the surface with tools nor aggressive or corrosive cleaning agents.

  CAUTION!

  The removed, potentially hazardous protective film must be stored outside the reach of children and animals, and properly disposed of pursuant to local standards.

Checking for the presence of the “Risk of Burns/Scalding” sticker (Fig. 6)

- Make sure that a yellow “Risk of Burns/Scalding” sticker is attached at the front. This sticker indicates that one should exercise proper caution when removing baking trays from the thermal processing chamber, as hot liquid may leak from them.

  NOTE!

  If there is no sticker, contact the manufacturer.

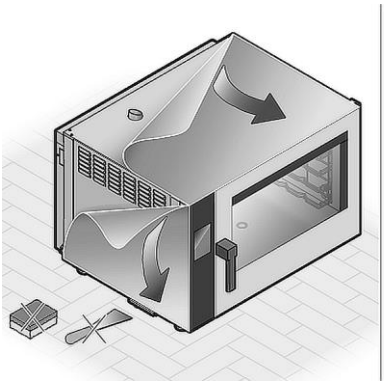

Fig. 5

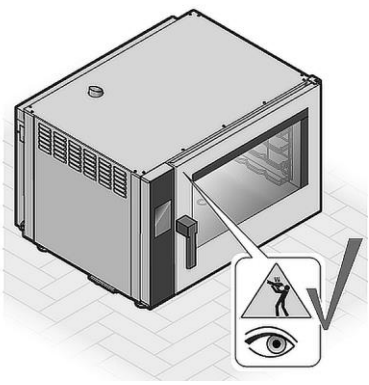

Fig. 6

Appliance Positioning

To ensure proper height of use, the appliance should be placed on:

- a suitable piece of equipment (Fig. 7);
- a base supplied by the manufacturer;
- another oven of the same series (using the appropriate and optionally available connecting kit);
- a table or a neutral cabinet.

ATTENTION!

In any case, these units must be perfectly level and stable, and must be suitable for a fully loaded appliance. Their surface must be fireproof and heat-resistant (Fig. 8).

If the appliance is to be placed on top of another device, its surface must not be warmer than 35°C. If necessary, it is possible to level the appliance with the feet; when doing so, be careful not to unscrew them completely.

ATTENTION!

Differences in height or tilting may negatively influence the appliance's functionality.

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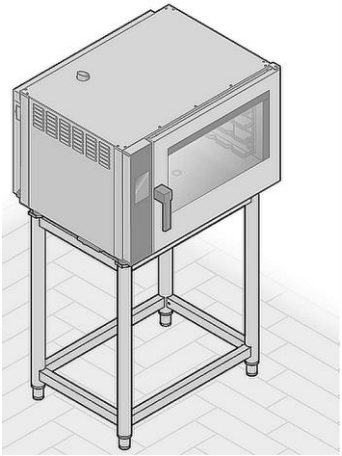

Fig. 7

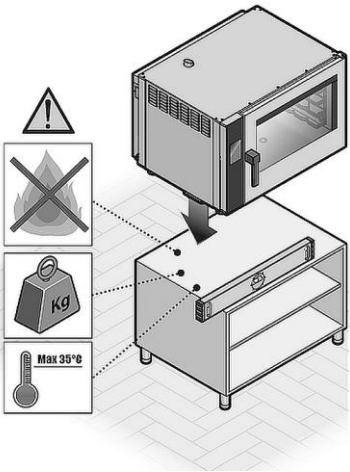

Fig. 8

Minimum distances to be maintained (Fig. 9, 10)

- Before positioning the appliance, check the dimensions and exact positions of the electric, water, and vapour extraction connections.
- Install the appliance only:
  - under a hood of sufficient power;
  - so as to have access to water and electricity connections;
  - with a clearance of at least 5 cm on the sides and behind the appliance;
  - with a side clearance of 50 cm and 70 cm behind fryers or other hot appliances.

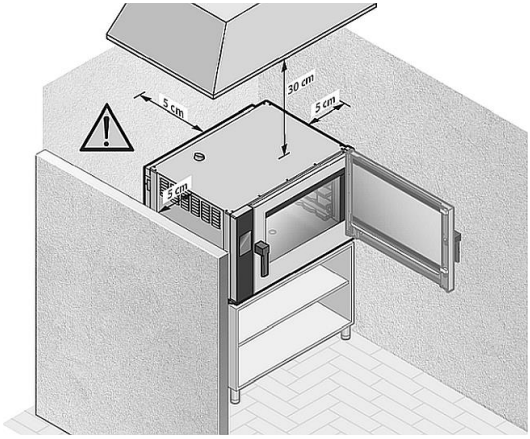

Fig. 9

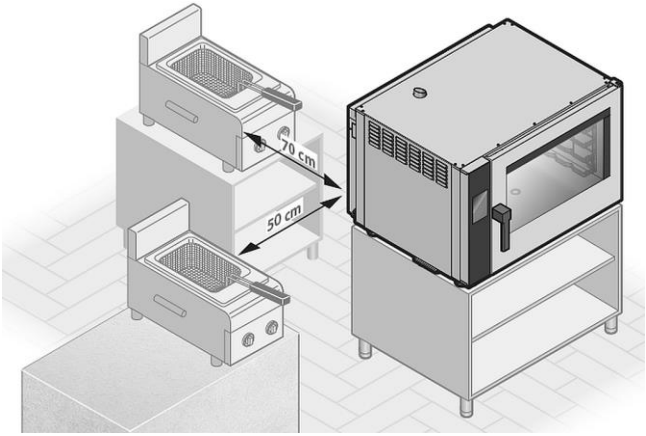

Fig. 10

ATTENTION!

Appliances, whether stationary or on a cart, must be — if necessary — easy to move for any emergency maintenance work.

Make sure that any masonry structures that may be constructed after installation (e.g., walls, new narrower doors, renovations, etc.) does not adversely affect the operation of the appliance.

Appliances, whether stationary or on a cart, are not approved for a built-in nor flush-mounted installation.

Door Locking Pin Adjustment

After placing the appliance in the selected location, check the closing mechanism and position of door seals on the thermal processing chamber.

To adjust the door tightness (if necessary), proceed as follows:

- Using a 13 mm wrench, adjust the door distance by tightening or loosening the screw **(A)**.
- Adjust the door locking screw **(B)** to prevent the possible escape of vapours during thermal processing (tightening the screw increases the pressure that the door exerts on the gasket, while loosening it—reduces it).
- When the adjustment is complete, re-tighten the screw **(A)**.

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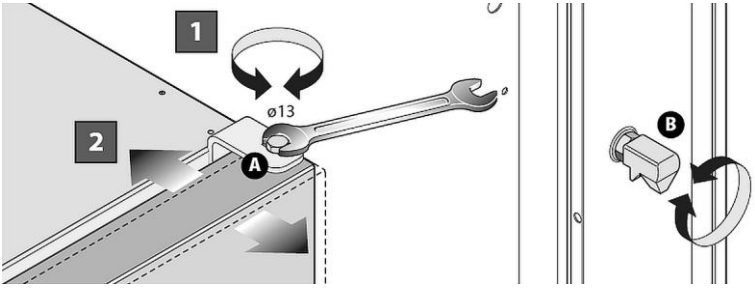

Fig. 11

Electrical Connection

- Before connecting the appliance to the power supply, make sure that voltage and frequency values on the rating plate are conforming to the existing electric installation. Connect the appliance only if the above mentioned parameters are consistent with each other!

  The allowable voltage deviation is ±10%.

- We recommend making the connection through a control cabinet, with an upstream and easily accessible switch, and integrated into the system pursuant to the regulations in force in the country of installation (Fig. 12). Alternatively, a suitable plug can be installed.
- When connecting to the control cabinet, pay attention to the wire polarity.

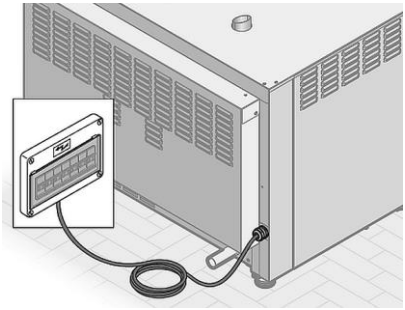

Fig. 12

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- To check whether the connection has been made correctly, check whether there is voltage between the appliance housing (grounding ⏚) and the phase.
- The cord must be replaced with a cord of equivalent characteristics and length by a qualified and authorized technician. The grounding wire must always be yellow-and-green.
- It is essential for the grounding wire to be properly connected with a single yellow-and-green conductor in the cord; the grounding wire must not have any connection points and must not be interrupted by a protective switch. It must be at least 3 cm longer than the other conductors in the cord.

- The **116822** appliance is factory equipped with connection cord and mains plug (single-phase, 230 V).
- To connect the appliance to electric supply, it is enough to insert the plug in a single grounded socket.
- When placing the appliance, make sure the power plug is easily accessible to immediately unplug the appliance if necessary.
- The electric power circuit must be protected by at least 16 A fuse. Connect the appliance only directly to a wall grounded socket and do not use any power boards or multisockets.

WARNING!

The appliance is delivered with a certified power cord and plug: it is prohibited to manipulate them or modify them.

Potential Equalising Connection

- Each appliance must be integrated into an efficient potential equalising system that complies with the regulations in force in the country of installation.
- Connect the potential equalising cord to the connection terminal marked with the ⏚ symbol.
- The connection clamp is found at the back of the appliance.

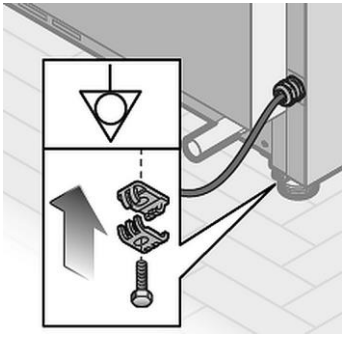

Fig. 13

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Water Connection

- The appliance is designed for permanent connection to the water supply (not through a set of detachable connection elements).
- The inlet water is used to moisten the thermal processing chamber and for cleaning processes.
- For connection, use only a food-grade, 3/4” hose; other hoses must not be used nor reused.
- Make sure that the potable water connection is located close to the appliance.
- Before connecting to the appliance, pass enough water through the supply hose to remove any debris from the water line.
- In the case of two ovens stacked on top of each other, a single supply is possible. In this case, use a “T” connector (not included in the delivery) to direct water to both appliances.

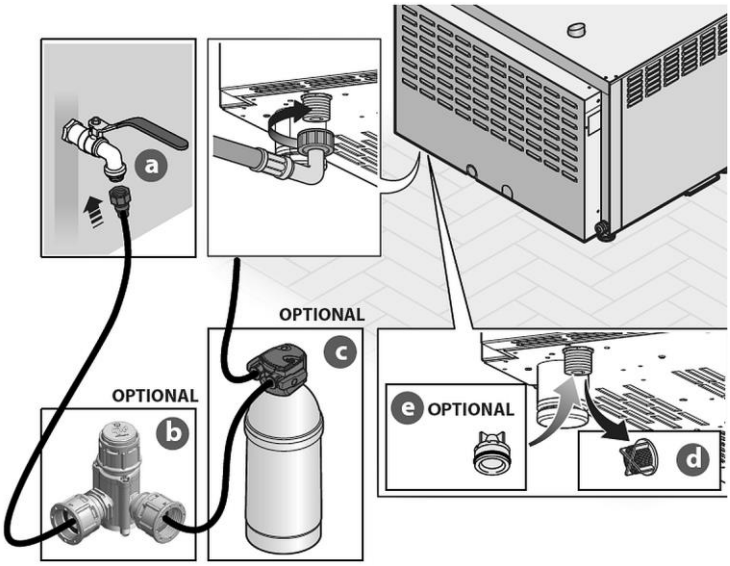

Fig. 14

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- It is recommended to:
  - install (not included in the delivery) a **shut-off valve a** (Fig. above) between the water connection and the appliance, so that the appliance can be disconnected from the water supply if necessary;
  - plan an (optional) **dirt filter b** at the appliance inlet (e.g., 168 microns);
  - use a **water softener and/or water treatment system** (both not included in the scope of delivery) to meet the minimum water requirements (see table below).
  - If necessary, the **filter d**, which is already installed on the inlet connection, can be replaced by an optional **check valve e** (see local regulations).
  - If necessary, a pressure regulator should still be installed upstream of the appliance.

Inlet Water Properties

The inlet water must feature the following properties:

Drinking water quality	
Maximum temperature	15°C ±5 (cold water)
Hardness (CaCO3)	3–9 °f (30–90 ppm; 1.5–5 °d)
Pressure	1.5–3 bar (150–300 kPa)
pH	7.0–8.5
TDS (residual solids)	40–150 mg/l
Langelier index	>0,5

Salt and Metal Ion Content

Chlorine	< 20 mg/l
Sulfates + nitrates	< 20 mg/l
Free chlorine	< 20 mg/l
Chloramine	< 0,5 mg/l
Iron	< 0,1 mg/l
Total silica	< 10 mg/l

ATTENTION!

If the water supplied from the local water supply does not feature the properties listed above, appropriate measures must be taken to meet the specified values (e.g., softening filter, pressure reducer, osmosis system, etc.).

Drain Connection

- Water used for humidification or cleaning is drained from the heat processing chamber through a drain, which can sometimes contain fats dripping from food, especially if fatty foods (e.g., poultry) are frequently processed.

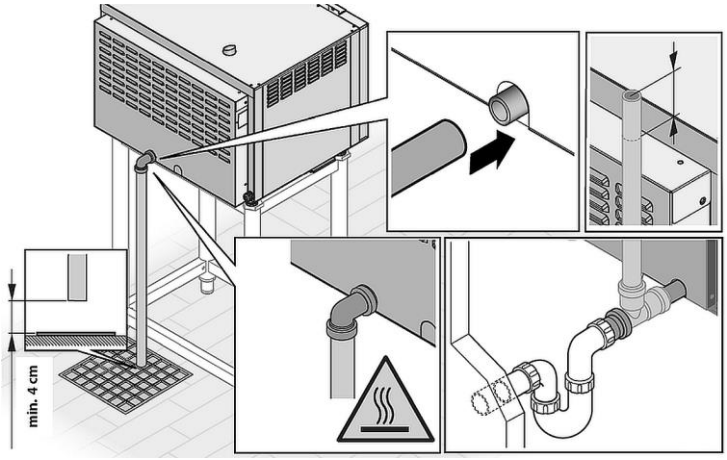

Fig. 15

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- There is no siphon in the appliance, so it is necessary to attach the outer nozzle to the floor drain; to this end use metal clamps (not included in the scope of delivery) to establish connection to the rigid pipe and the angle connection.
- Then connect the heat-resistant pipe to the angle connection to drain it into the grate located in the installation room.
- Alternatively, there is also a wall drain option. In such a case, an upward vent and a trap must be provided. (The choice of siphon is the responsibility of the installer).
- In any case, it is recommended to use heat-resistant pipe and avoid contact with liquids that are drained when the appliance is on.

ATTENTION!

It is mandatory for the drain to be located outside the appliance.

CAUTION!

A clearance of at least 4 cm must be left between the drain pipe and the grate to prevent the back-flow of dangerous bacteria into the appliance.

Steam Exhaust Connection

ATTENTION!

It is mandatory for the appliance to be installed under a kitchen hood with sufficient capacity.

Depending on the model, there are one/two fume extraction hoods at the rear of the appliance, as well as a **shaft for exhausting** vapour/moisture normally generated during the thermal processing.

WARNING!

Escaping vapours are very hot, so there is a risk of burns/scalding!

Always make sure that the fume extraction hood is not obstructed. Do not place any combustible nor heat-sensitive materials near the exhaust duct.

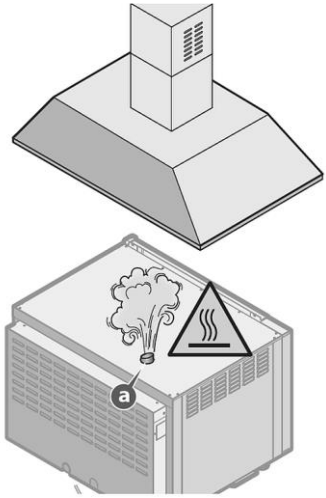

Fig. 16

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5.2 Inspections and Commissioning Test

Inspections Prior to Start-up

Before the first start-up, electric appliances must be thoroughly inspected in order to confirm the consistency of the appliance and its installation with regulations in force, technical data, and recommendations for safety.

The following conditions must be met:

- Temperature in the installation location must exceed +5°C.
- The thermal processing chamber must be empty.
- All packaging elements must be fully removed, including the protective film on external walls.
- Ventilation openings cannot be covered nor obstructed.
- Parts disassembled during installation of the appliance must be re-assembled.
- The main switch of the electric installation must be on, and water shut-off valve upstream of the appliance must be open.

Inspection During Commissioning

When commissioning, the following conditions must be met:

- Internal lighting switches on automatically.
- The appliance is switched off after opening the door and is switched on again after closing it.
- The temperature setting thermostat in the appliance is triggered only when the set temperature is reached. The heater(s) switch on in intervals.
- In appliances with two fans, motors feature the same direction of rotation.
- Fan motors automatically change direction after 3 minutes; when the motor is stopped, the break lasts 20 seconds.
- After setting the steam injection, water flows out of the water hose in the thermal processing chamber towards the fan.
- At the end of the cooking/roasting cycle, an acoustic signal sounds for approx. 15 seconds. This ends automatically after a few seconds.

6 Operating Instruction

6.1 Indications for the User

WARNING!

Risk of burns!

During operation, the housing and appliance door become very hot and remain hot for a while after switching the appliance off.

Never touch the appliance during operation or immediately after it has been switched off.

Open and close the appliance door with a door handle only.

Use designated operating elements and handles only to operate.

When opening the appliance door, a hot steam may escape.

When opening the appliance door remain extremely cautious, and open the appliance door in two stages: leave them half-open (3-4 cm) for 4-5 seconds and only then do open them entirely.

During operation, the grate and food containers become very hot and remain hot for a while after finish of the cooking/roasting process.

To remove hot food containers use safety gloves or dish-washing cloths.

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- Never install the appliance in the vicinity of heat sources, such as a grill or a deep-fryer.
- Never leave flammable materials near the appliance. **Fire hazard!**
- Do not put flammable materials nor food products containing alcohol in the combi steamer: it may cause self-ignition and fire that, in turn, may lead to an explosion.
- Avoid salting food inside the thermal processing chamber. If you cannot avoid this, clean the appliance as quickly as possible, otherwise the thermal processing chamber may be damaged.
- If glass elements (appliance door) get damaged or cracked, replace them immediately. To this end, contact the service company.
- If the appliance is not to be used (e.g. for 12 hours), leave the appliance door open.
- If the appliance is not to be used for a prolonged period of time (e.g., a number of days) close water supply and disconnect the appliance from mains power supply.

- When the combi steamer is to be placed on another combi steamer or appropriate base it is not recommended to use guides higher than the ones enabling the user to look into the container.

Due to safety reasons, when the appliance is installed, it is mandatory to place a safety sticker at the height of 1600 mm from the floor, saying: **'Risk of burning! Hot liquid inside the container!'**, which is part of the delivery.

- When grilling or roasting food products on a grate, it is necessary to place a container for collecting grease or juices on a level below or at the bottom of the thermal processing chamber.
- Mind the correct usage of the thermal core probe: Introduce the thermal core probe at the thickest point of the food product, proceeding from top to bottom, until reaching the centre of the product by the tip of the thermal core probe.
- If there is the need to intervene with the prepared food during its thermal processing, open the appliance door for possibly the shortest period of time to prevent temperature drop in the chamber to an extent deteriorating the thermal processing results.
- To compensate the heat loss, we recommend pre-heating the appliance.

NOTE!

Before cooking/roasting, heat the appliance up to the temperature higher than the intended cooking/roasting temperature by 20-25%. After reaching the pre-heating temperature, the appliance may be loaded.

The temperature should then be reduced to the temperature provided for the preparation of the dish.

- Never put any type of GN containers/baking trays, cold/hot containers or other objects on the appliance, even if it is switched off (Fig. 17).
- NEVER bring or leave flammable, explosive or heat-sensitive items (e.g., plastic decorative items, lighters, etc.) near the appliance.
- NEVER come nowhere near the appliance with explosive items (e.g., gas cylinders or pressurised cylinders), otherwise there is a risk of deflagration.
- Do not place any objects (e.g., manuals, oven mitts, etc.) between the stove and the supporting surface, so as not to interfere with the operation of fans and thus the air flow under the appliance.

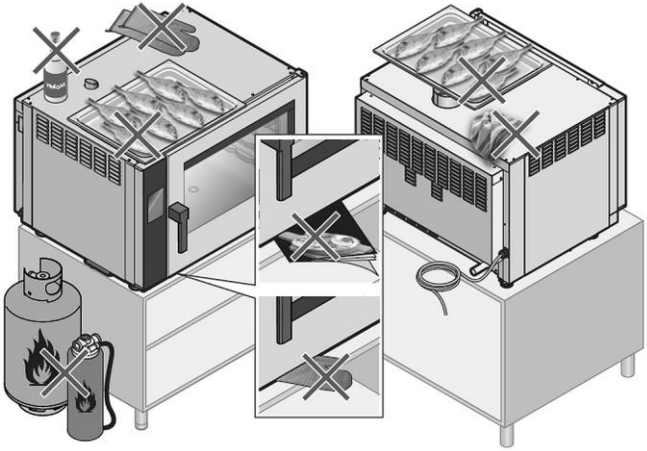

Fig. 17

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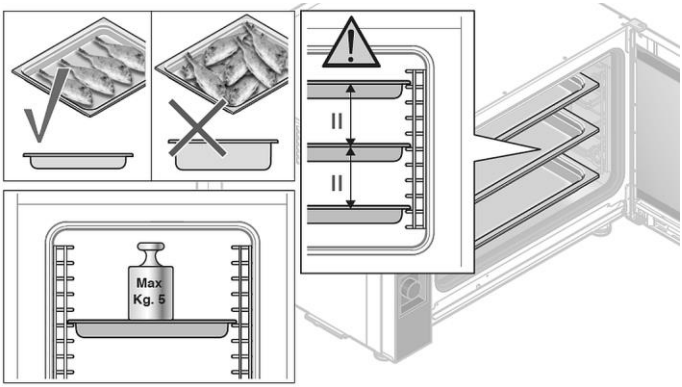

Fig. 18

- To provide for perfect and uniform thermal processing of food, we recommend using GN containers or baking trays with limited height, in order to secure good and suitable air circulation (Fig. 18).
- There must be a clearance of at least 2 cm between the top GN container/baking tray and food in bottom food containers.
- Do not overfill GN containers/baking trays; also, spread food for thermal processing evenly, preferably in a single layer, to achieve a satisfactory result.
- If the appliance is not used fully loaded, GN containers/baking trays should be distributed over the entire height of the thermal processing chamber without

overloading it, to ensure effective air circulation between GN containers/baking trays: Owing to this thermal processing results can be optimised and processing times can be reduced.

Recommendations for cooking

Roasting

For more effective cooking, it is recommended to place the roasted foods on the steel rod grill in order to achieve more uniform cooking between the upper and lower part without having to turn the product during cooking. If you want to collect the juices, place a tray below the grill in the rails.

Grilling

To obtain the optimal effect during grilling in the oven chamber is necessary to use the grill (preferably aluminium).

The oven is generally set in convection mode, with valve open and temperature between 230 °C and 270 °C according to the type of product and browning that is to be obtained, and ventilation between 4 and 6.

Frying

All breaded and pre-fried frozen foods can be fried in the device. In case of breaded products, spray a thin layer of oil in such way that it is absorbed by the bread.

Frozen pre-fried products can be fried without adding oil.

Use non-stick aluminium trays or special frying baskets. Set the oven to convection with the valve open, at temperature of 250°C and ventilation between 4 and 6.

Recommendations for cooking uniformity

The uniform cooking process may vary depending on type of prepared products. In such case it is recommended to lower temperature and change (increase or decrease) the fan rotation speed.

Using correct trays increases the general cooking uniformity of the oven. Always select the tray with the minimum depth possible for the product to be cooked. Aluminium trays offer more uniform cooking that steel trays.

Cooking in a vacuum bag

Product can be cooked directly inside a vacuum bag. This type of cooking allows for particularly soft and flavoured meat to be obtained and at the same time decreases spoilage of the product.

Pack the products into appropriate bags for vacuum cooking. Set the device to "Mixed cycle" at 100% humidity and ventilation between 3 and 4. The cooking

chamber temperature must be maximum 3 °C-5 °C higher than the temperature which the core must reach. E.g. for an average fillet (60°C in the core) set the device temperature at 63 °C.

Pasteurisation in a container

In that process the product is considered pasteurised when the core temperature reaches a value between 83 °C and 85 °C.

Depending on the type of product, dimensions of the container and amount of product it contains, the time of reaching the core temperature may vary. We recommend to use the core probe on a sample container (perforating the lid to allow the probe to enter) in order to detect the temperature of the entire production batch.

At the end of cooking the product must be quickly cooled down to +3°C to end the pasteurisation process.

Appliance Preparation

1. Before starting-up, clean the appliance (inside and outside), as well as accessories, observing indications in section 6 **“Cleaning”**.
2. Thoroughly dry all cleaned surfaces and elements.
3. Also, accessories and baking trays should be thoroughly cleaned and dried before each use.
4. Before the first start-up, check the correctness of installation, stability, and levelling of the appliance, as well as execution of all connections.
5. When using the appliance for the first time, run it for 30–40 minutes at 200°C without food to remove any technical processing residues.

First Start-Up

The commissioning of the appliance is realized upon the basis of the test cycle allowing for checking the correctness of operation and revealing any damages or problems.

Use the **M 1** rotary function controller to switch the appliance on, by rotating it to one of the functions, e.g., **I 2** (thermal processing with hot air).

Set the cooking/roasting cycle with the following parameters:

Time: 10 minutes or for **I 6** (unlimited time)

Temperature: 150°C

Steam injection: position 2 of the **M 4** controller.

NOTE!

An acoustic signal may sound when the appliance is switched on. This is normal and it will be off after a few seconds.

NOTE!

When using the appliance for the first time, fumes and unpleasant odours are generated (this is a result of evaporation of moisture from the insulating material), which are no longer present in subsequent cycles of operation.

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6.2 Control Panel

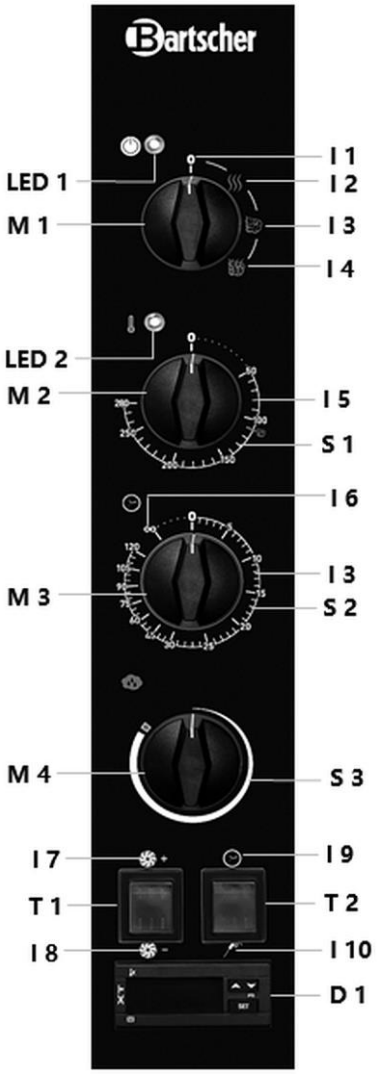

Fig. 19

M 1	Function selector knob
I 1	OFF position
I 2	Cooking/roasting
I 3	Cooking/roasting with steam
I 4	Combi steaming
M 2	Temperature control
I 5	Setting of cooking/roasting with steam (approx. 110°C)
S 1	Temperature scale in °C (50–280)
M 3	Timer
I 6	Unlimited time position
S 2	Time scale in minutes (0–120)
M 4	Steam injection controller
S 3	Steam injection scale (1–10)
T 1	Fan speed selector switch
I 7	Level 2 fan speed setting
I 8	Level 1 fan speed setting
T 2	Time / thermal core probe activation time switch
I 9	Time activation
I 10	Thermal core probe activation
D 1	Core temperature digital controller
LED 1	ON/OFF indicator
LED 2	Operating mode indicator

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6.3 Settings

Cooking/Roasting With Hot Air

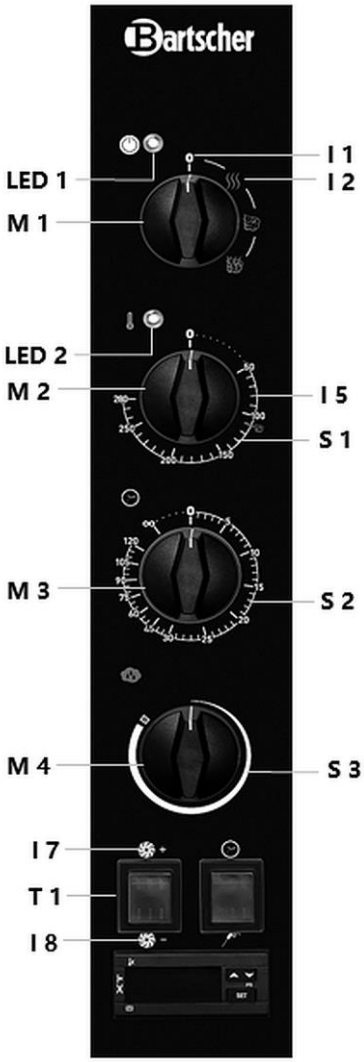

Fig. 20

1. To set the cooking/roasting with hot air, rotate the **M 1** function selector knob clockwise to **I 2** position.
2. Then, set the temperature by rotating the **M 2** temperature controller clockwise to the selected position.
3. To end with, set the cooking/roasting time by rotating the **M 3** timer clockwise to the selected position.

After the set time has expired, an acoustic signal will sound and the appliance will switch off automatically.

To skip setting the time, rotate the timer to **I 6** position (unlimited time).

The fan speed is set with **T 1** switch.

4. Select level and set the **T 1** switch to a suitable position, **I 7** or **I 8**.

Note: The **T 2** switch must be in **I 9** position (time activation).

Cooking/roasting with convection and steam injection

1. To add humidity to the cooking/roasting with hot air process, rotate the **M 4** controller to the selected position.
2. Rotate it clockwise in order to increase the steam injection level in the thermal processing chamber, and counter-clockwise - to reduce it.

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Cooking/roasting with steam

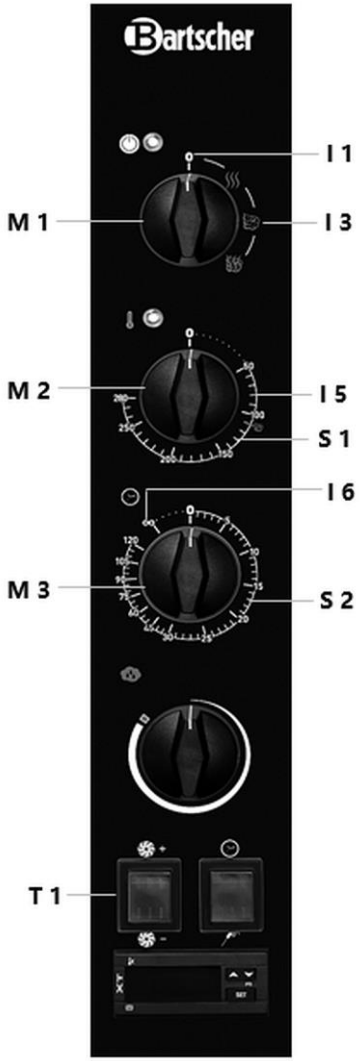

Fig. 21

1. To set the cooking/roasting with steam, rotate the **M 1** function selector knob clockwise to **I 3** position.
2. Then, set the temperature by rotating the **M 2** temperature controller clockwise to the selected position.

For traditional cooking/roasting with steam, it is recommended to set the appliance to 110°C, which is marked as **I 5** at the temperature scale.

3. To end with, set the cooking/roasting time by rotating the **M 3** timer clockwise to the selected position.

After the set time has expired, an acoustic signal will sound and the appliance will switch off automatically.

To skip setting the time, rotate the timer to **I 6** position (unlimited time).

The fan speed is set with **T 1** switch.

4. Select level and set the **T 1** switch to a suitable position, **I 7** or **I 8**.

Note: The **T 2** switch must be in **I 9** position (time activation).

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Combi steaming (cooking/roasting with air circulation/steam)

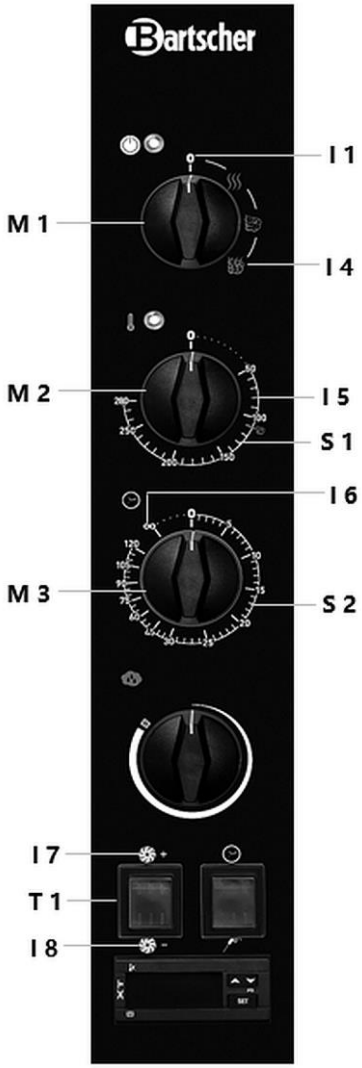

Fig. 22

1. To set the cooking/roasting with air circulation/steam, rotate the **M 1** function selector knob clockwise to **I 4** position.
2. Then, set the temperature by rotating the **M 2** temperature controller clockwise to the selected position.
3. To end with, set the cooking/roasting time by rotating the **M 3** timer clockwise to the selected position.

After the set time has expired, an acoustic signal will sound and the appliance will switch off automatically.

To skip setting the time, rotate the timer to **I 6** position (unlimited time).

The fan speed is set with **T 1** switch.

4. Select level and set the **T 1** switch to a suitable position, **I 7** or **I 8**.

Note: The **T 2** switch must be in **I 9** position (time activation).

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Cooking/roasting with thermal core probe

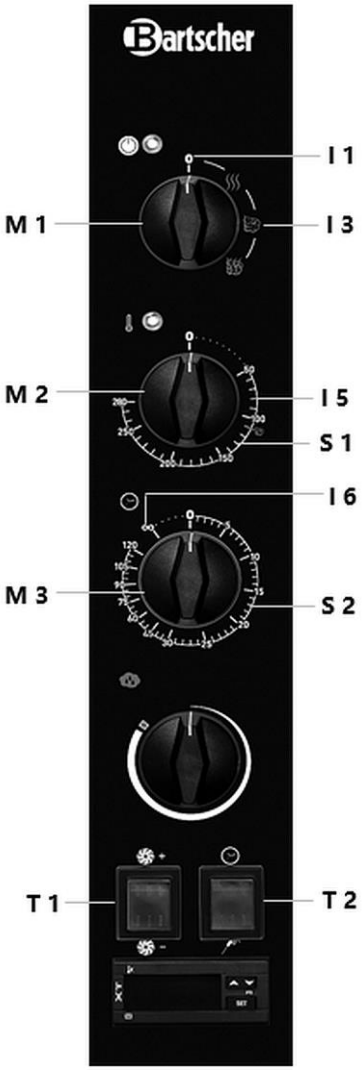

Fig. 23

1. Us the **M 1** function selector knob to select the cooking/roasting mode, rotating it to one of the following positions: **I 2 – I 3 – I 4**.
2. Set the temperature by rotating the **M 2** temperature controller clockwise to the selected position.

When cooking/roasting with thermal core probe, always rotate the **M 3** timer to **I 6** position (unlimited time).

Set the remaining parameters (stem injection, fan speed) as needed.

3. To activate the thermal core probe, set the **T 1** switch to **I 10** position.
4. Use the **D 1** digital controller to set the core temperature in the prepared food:
   - press the SET button — the indicator blinks,
   - use arrow buttons to set the core temperature,
   - press the SET button to confirm the setting.

As soon as the set core temperature inside the prepared food is reached, an acoustic signal sounds, the appliance switches itself off and the preparation is finished.

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Thermal Core Probe Connection (optional)

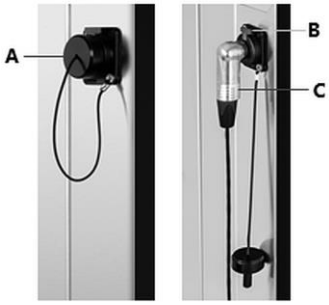

Fig. 24

1. To connect the thermal core probe, remove the plug **A** (left-hand side Fig.) from the connection location in the top left corner of the appliance.
2. Press and hold the red lock **B** and insert the thermal core probe **C** into a dedicated opening.
3. Finally, release the red lock **B**.
4. To remove the thermal core probe, press the red lock **B** again and remove the thermal core probe **C**.
5. Release the red lock **B**.
6. Re-fit the plug **A** in the connection location.

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Placing Thermal Core Probe in Proper Location within the Food

ATTENTION!

To avoid any damage to the thermal core probe, introduce it into the appliance only over the appliance door.

The thermal core probe is set by inserting it in the prepared food, until its tip is located inside the food (where the thickness of the prepared food is the greatest).

Thermal core probe detects temperature in a point located in the proximity of the probe.

Insert the tip of the probe into the core of a dish. When doing so, make sure the probe does not slide out of the dish. Do not insert the probe in very fatty areas or next to bones (otherwise the thermal processing may end too soon).

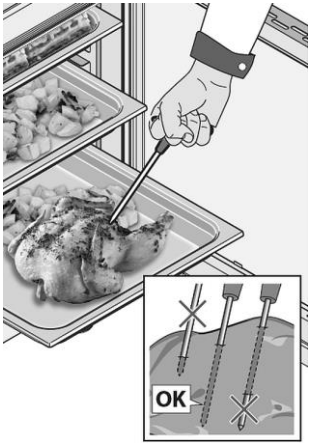

Fig. 25

Dishes	Recommended core temperature
Beef tenderloin	53 °C - 58 °C
Beef (cutlet, entrecôte, steak)	50–55°C: light thermal processing 55–65°C: medium thermal processing 66–70°C: strong thermal processing
Pork tenderloin	58 °C - 64 °C
Veal roast	72 °C - 75 °C
Pork knuckle/ribs	80 °C - 85 °C
Piglet	68 °C - 75 °C
Lamb	58 °C - 65 °C
Chicken, turkey (whole)	85 °C - 87 °C
Salmon (slices)	58 °C - 65 °C

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WARNING! Risk of burning/scalding!

The end of the thermal core probe is very sharp and reaches very high temperatures following the cooking process!

Do not touch the hot end of the thermal core probe.

Handle the thermal core probe very carefully.

CAUTION!

When the thermal core probe is not in use, place it in the magnetic holder, which should be attached to the left side of the stove.

When the thermal processing is complete, be sure to remove the thermal core probe from the food before the baking tray is removed from the thermal processing chamber.

Do not pull the thermal core probe out by the wire!

Do not insert the thermal core probe into deep-frozen products, otherwise there is a risk of thermal shock and thus irreversible damage to the thermal core probe.

Humidity Discharge Valve

The humidity extraction function consists in removal of humidity that may condense in the thermal processing chamber during cooking/roasting process.

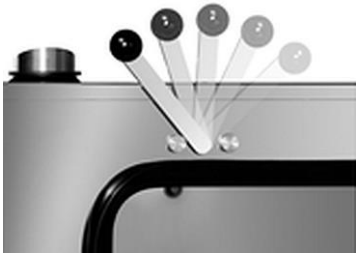

Fig. 26

1. Set the discharge valve lever to the following positions:

left: VALVE CLOSED

right: VALVE OPEN

Also, when the discharge vale is closed, there is no threat of overpressure in the thermal processing chamber existing, for the pressure is still being controlled by the extractor.

We recommend to set the discharge valve lever in VALVE CLOSED position for 'Steaming' and 'Combi steaming'.

Interior Lighting

Lighting of the thermal processing chamber is automated and connected with the appliance's operation. At the end of the cooking/roasting cycle (e.g., when the timer is set to '0' or the core temperature reaches the set value), the lighting is off.

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Switching the Appliance Off

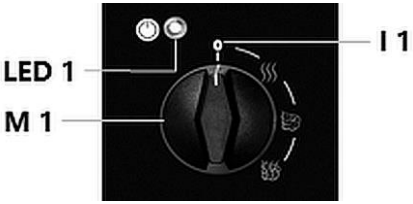

Fig. 27

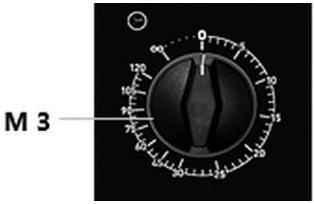

Fig. 28

1. To switch the appliance off, the **M 1** function selector knob must be set to **I 1** (OFF) position.

LED 1 goes off.

2. To finish the preparation process earlier, rotate the **M 3** timer to **'0'** position (also in the case of cooking/roasting with the set core temperature).

7 Cleaning and Maintenance

The operator must ensure that the device and its safety components are kept in good condition. Control and safety systems should be checked for their effectiveness.

Maintenance, cleaning and repairs must only be carried out by suitably trained and specialised personnel.

If the safety devices need to be removed for maintenance, cleaning and repair, they should be reinstalled immediately after completion and their function should be checked.

All maintenance and cleaning work must be carried out in accordance with the operating instructions at the specified intervals.

7.1 Safety Instructions for Cleaning

- Before cleaning, disconnect the appliance from the power supply.
- Leave the appliance to cool down completely.
- Make sure water does not enter the appliance. Do not immerse the appliance in water or other liquids during cleaning. Do not clean the appliance with a pressurized water jet.
- Do not use any sharp or pointed, nor metal implements (knife, fork, etc.). Sharp or pointed implements may damage the appliance, and when in contact with live parts, they may cause electric shock.
- For cleaning, do not use any scouring agents that contain solvents nor corrosive cleaning agents. They may damage the surface.

- Always use appropriate personal protective equipment during all cleaning operations. When performing manual cleaning operations with direct use of cleaning agents, the use of protective gloves and goggles is mandatory, as cleaning agents can cause injury and burns through contact and inhalation.
- NEVER use abrasive or powdery, not aggressive or corrosive cleaning agents (e.g., hydrochloric/muriatic acid or sulphuric acid, soda lye, etc.), abrasive or pointed tools (e.g., sanding sponges, scrapers, steel brushes, etc.), steam or pressurized water jets to clean components or accessories. Caution! Do not use these tools nor materials to clean the bottom structure/underside of the appliance.

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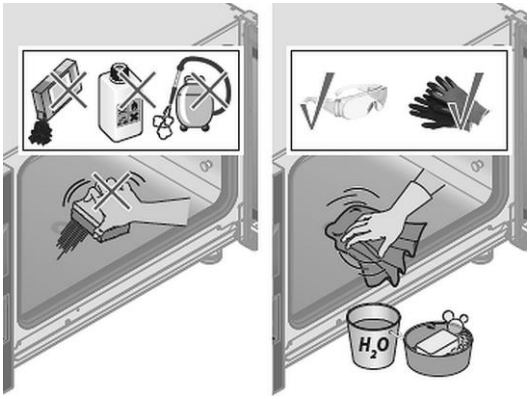

Fig. 29

7.2 Cleaning

User's Regular Cleaning

1. To secure correct operation, hygiene and efficiency, clean the appliance regularly at the end of each working day, and, if necessary, also in the meantime or when the appliance is not to be used for a longer time.

With regular cleaning you may avoid burning leftovers of baked goods and roasts.

2. Remove food from the appliance.
3. Provided the grate, trays and GN containers were used, remove them.
4. Clean the thermal processing chamber with lukewarm water with soap, a soft cloth or a sponge. Thoroughly rinse with fresh water, paying attention not to leave any cleaning agent residues. To end with, dry the thermal processing chamber thoroughly.
5. In the case of stubborn soiling, use special cleaning agents. Observe instructions of such a cleaning agent's manufacturer.
6. Clean the appliance from the outside with a soft, damp cloth. Dry all cleaned surfaces thoroughly. If needed, use only special cleaning agent for stainless steel. Usage of inadequate cleaning agents may cause oxidation of the appliance.
7. Regularly clean the fume extractor.

Guide Rails

To facilitate the cleaning of the thermal processing chamber, remove guide rails from the appliance.

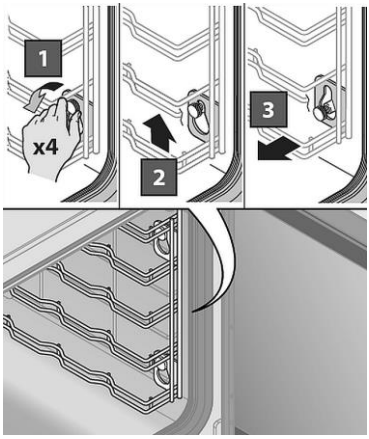

Fig. 30

1. Loosen knurled screws (1) (right and left).
2. Slide the guide rails up (2) and take them out of the thermal processing chamber (3).
3. Clean guide rails with warm water, a soft cloth and a mild cleaning agent.
4. Thoroughly clean guide rails with a soft cloth.
5. When the chamber and guide rails are clean, re-insert guide rails into the chamber and secure them with knurled screws.

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Appliance Door/Internal Glass Pane

Double glazing facilitates cleaning. The internal glass pan may be opened and removed when required.

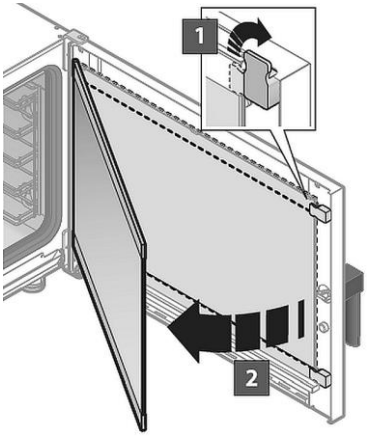
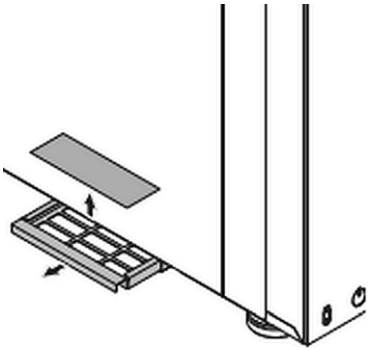


Fig. 31

1. To this end, rotate clockwise both latches (top and bottom) that hold the internal glass pane in place (1).
2. Tilt the internal glass pane (2).
3. Clean both sides of the internal glass pane and appliance door with the use of appropriate agents.
4. Thoroughly dry the internal glass pane from both sides.
5. Again, close the internal glass pane or re-insert it correctly, and lock latches in their initial positions by rotating them counter-clockwise.

Control Panel Ventilation Filter

Clean the control panel ventilation filter at least once a month.



1. Pull the ventilation filter from its holder by holding its sides with your fingers.
2. Clean the ventilation filter manually with the use of water and soap. Rinse with fresh water and then leave it to dry.
3. Re-insert the ventilation filter in the holder.
4. Slide the holder into its place under the appliance.

Fig. 32

ATTENTION!

Do not use the appliance without the ventilation filter.

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It is recommended to replace the ventilation filter at least once a year or even more frequently if the appliance is operated in environments featuring high concentration of flour dust or similar substances.

ATTENTION!

If the ventilation filter is damaged or worn, it must be replaced. It should be ordered as a spare part from the supplier.

7.3 Maintenance

- Regularly (at least once a year), have an authorized and specialised personnel verify the appliance. To this end, contact the service company.
- Before attempting any maintenance works, disconnect the power supply, close water supply and completely dry the appliance.
- Before moving the appliance into a new location, disconnect power and water supply lines, as appropriate.
- If the appliance is part of a system equipped with rollers, check if the electrical wiring, piping installation and hose connections have not been damaged during moving.
- After moving the appliance into a new location, and prior to its start-up, make sure that all electrical and water connections have been executed following standard regulations in force.

8 Possible Malfunctions

The table below contains descriptions of possible causes and solutions to malfunctions or errors during operation of the appliance. The works may only be performed by suitably qualified technical personnel.

Error	Solution
Appliance does not switch on	Check electric power supply
	Check appliance fuses for damage
	Make sure the appliance door is closed correctly
	Check correct setting of cooking/roasting process parameters
	Make sure the appliance does not send error message

Error	Solution
If the appliance does not switch on following the actions above, contact the service company.	
Fan stops during operation	Switch the appliance off and wait for the motor overheating protection to be automatically re-set
	Make sure that ventilation openings are not covered nor obstructed
If the malfunction persists, contact the service company	
Water does not come out of water outlet openings in the thermal processing chamber	Check if the water shut-off valve is open
If the malfunction persists, contact the service company	
Thermal core probe does not work	Check if the timer is set to **I 6** position (unlimited time).
If the malfunction cannot be removed, contact the service company	

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9 Disposal

Electrical Appliance

	Electric appliances are marked with this symbol. Electrical appliances must be disposed of and recycled in a correct and environmentally friendly manner. You must not dispose of electric appliances with household waste. Disconnect the appliance from the power supply and remove power cord from the appliance.

Electrical appliances should be returned to designated collection points.