
Installation, use and maintenance manual

COMBINED, CONVECTION AND STEAM



**Steam
box**
EFFICIENT COMBI-OVENS

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Dear Customer,

We thank you for having purchased our product.

This oven is part of a line of appliances specifically designed for baking and patisserie, made of gas and electric ovens with different capacities. The pleasant and modern design of these ovens encloses ease of use, ergonomics and cooking control.

The oven has a 12 months warranty against any manufacturing faults, starting from the date on the sales invoice. The warranty covers the normal functioning of the oven and does not include the consumption materials (lights, gaskets, etc.) and faults caused by incorrect installation, wear, maintenance, repair, decalcification and cleaning, tampering and improper use.

The manufacturer reserves the right at any time to make improving or necessary amendments to the product.

1. Installation

1.1. General and safety warnings

- Carefully read this manual before installing and commissioning the oven, in that the text gives important indications regarding the safe installation, operating and maintenance of the equipment.
- Keep this manual in a safe and easily accessible place for further consultation by the operators.
- In case of transferring the oven, always attach the manual; if necessary, a new copy must be requested from the authorised dealer or directly from the manufacturing company.
- Once unpacked, ensure the oven is intact and does not show signs of damage due to transport. A damaged appliance must never be installed and commissioned; if in doubt, immediately contact the after-sales technical assistance or your own dealer.
- Installation, extraordinary maintenance and repair operations on the equipment must only be carried out by professionally qualified staff and by following the manufacturer instructions.
- The appliance has been designed to cook food in closed premises and must only be used for this purpose: any other different use must, therefore, be avoided as considered improper and dangerous.
- The oven must only be used by staff adequately trained for its use. To avoid the risk of accidents or damages to the appliance, it is also fundamental that staff regularly receive precise instructions regarding safety.
- The oven must not be used by persons with reduced physical, sensorial or mental capacities or by persons without experience and knowledge, unless supervised or educated regarding the operating of the appliance by a person responsible for their safety.
- Children must be supervised to assure they do not play with the appliance or use it.
- Pay attention to the hot parts of the external surfaces of the equipment during functioning that, in working conditions, may exceed 60°C.
- In case of fault or bad functioning, the equipment must be deactivated; in case of repair, contact only an after-sales technical assistance centre authorised by the manufacturer and request original spare parts.
- Do not position other heat sources like, for example, fryers or hotplates, near the oven.
- Do not deposit or use flammable substances near the equipment.
- In case of prolonged disuse of the appliance, both the water and electric energy supply must be shut-off.
- Before commissioning the equipment, ensure to have removed all packaging, being careful to dispose of it in compliance with the Standard in force.
- Every amendment to oven installation that should result necessary, must be approved and carried out by authorised technical staff.
- Amendments to the oven wiring are not admitted.
- The non-compliance with the above warnings can jeopardise the safety of the equipment and yours.

1. Installation

1.1. General and safety warnings

The gas oven versions are compliant with essential requisites of Gas Directive 2009/142/EEC and are, therefore, provided with CE review certification issued by a Notified body. They satisfy the prescriptions of the following gas Standards:

- EN 203 + subsequent updates;
- EN 437 + subsequent updates.

For installation the safety prescriptions contained in the following must be complied with:

- Standards UNI CIG n. 7222-7723-8723 + subsequent amendments.

The equipment is compliant with the essential requisites of Low Voltage Directive 73/23/EEC and 2006/95/EEC. It satisfies the prescriptions of the following electrical Standards:

- EN 60335-1 + subsequent updates;
- EN 60335-2-42 + subsequent updates;
- EN 55104 / EN 55014 + subsequent updates;
- EN 61000 + subsequent updates.

The equipment is compliant with the essential requisites of Electro-magnetic Compatibility Directive.

1.2. Positioning

The appliances have been designed for installation in closed premises, they cannot be used in the open air and cannot be exposed to rain.

The place of installation of the oven must have a solid, flat and horizontal surface able to safely support both the mass weight of the appliance/support and that of maximum load capacity.

The appliance must be placed in adequately ventilated premises.

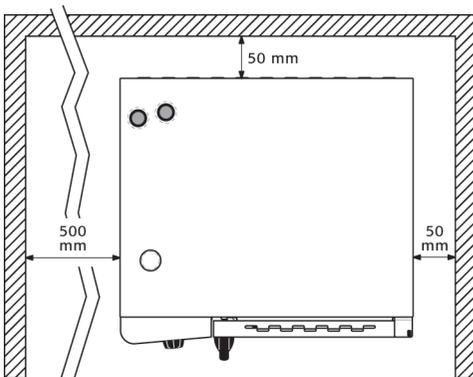


fig. 1

The oven must only be installed on a stable support.

The appliance must be removed from its packaging, its integrity checked and arranged in the place of use, being careful not to position it above or against walls, sides, partition walls, kitchen cabinets or covers in flammable material.

We recommend scrupulously complying with the fireproof Standard in force.

There must be a **minimum distance of 50 mm** on all sides between the oven and the walls or other equipment. We recommend **leaving 500 mm** of space between the left side of the oven and the corresponding room wall (**fig. 1**), for easy oven installation and its subsequent maintenance.

1. Installation

1.2. Positioning



fig. 2

All materials used for packaging are compatible with the environment; they must be safely kept and disposed of according to the Standard in force.

The oven must be levelled: to regulate the height of the adjustable feet act, using as reference a spirit level, as shown in **fig. 2**.

Significant unevenness or inclinations can negatively influence the functioning of the oven.

Slowly remove all protective film from the appliance external panels, being careful not to leave traces of adhesive.

Check that the heat disposal or inlet slots and openings are not obstructed.

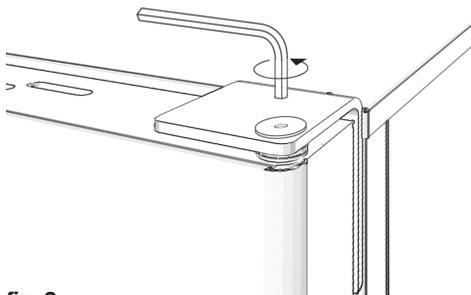


fig. 3

Once the oven has been correctly positioned in its designated place for installation, check the closing and seal of the gaskets on the oven compartment door.

The door hinges must be adjusted to assure maximum seal of the oven door during its functioning. It is possible to adjust both the upper and lower hinges.

If required, to adjust the door seal, loosen the bolt (**fig. 3**) and move the door in wanted position. Once adjusted, fasten the bolt again.

The door's closing pin can be adjusted in depth to eliminate any steam emissions during cooking.

It is possible to adjust pressure applied by the door on the gasket by tightening the pin to increase or loosening the pin to decrease it.

Once adjusted, fasten the bolt again ensuring to have positioned the lock closing anchoring downwards.

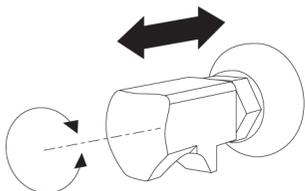


fig. 4

1. Installation

1.4. Water connection

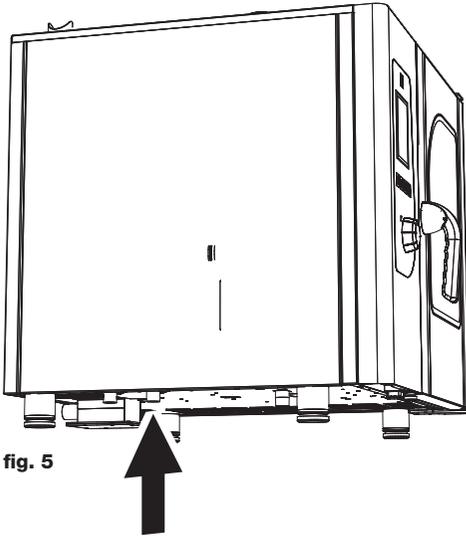


fig. 5

The water pressure must be max. (250 KPa) 2.5 bar. Should the water pressure from the mains be higher than such value, install a pressure reducer upstream of the oven.

The minimum water temperature for the correct functioning of the oven must be higher than 0.5 bar.

The oven has a softened water inlet (**fig. 5**). Always install a water softener to bring the hardness of the water at appliance inlet within the values of between 8° and 10° F.

Before connecting, let sufficient amount of water flow to clean the duct from any iron residues. Check that the filter of the solenoid valve is clean (see paragraph 5.2).

Connect the "Water" duct to the specific cold water mains and interpose a shut-off cock.

Ensure the shut-off cock is located in a place and in a manner to be easily activated at any moment by the operator.

Attention: in case of water drain pipe fault, it must be replaced with a new one and the old and faulty one must never be re-used.

The electric system, as prescribed and specified by the Standard in force, must be equipped with an efficient ground. It is possible to guarantee the electric safety of the appliance only in the presence of Standard electric system.

Before carrying out the electric connection, the

1.5. Drain connection

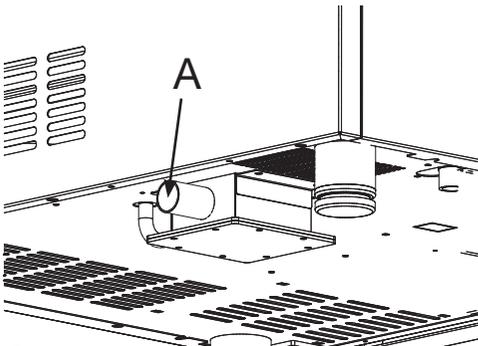


fig. 6

The oven is equipped with a water draining device; such device is located at the bottom in the rear part of the appliance and has two tubes with a 28 mm diameter.

Connect the tube that protrudes from the draining device (**fig. 6, ref. A**). The draining device is a siphon; we recommend connecting the tube on an open funnel.

Check that the internal siphon is full of water and, if not, fill it by introducing H₂O through the drain in the cooking compartment.

1. Installation

1.6. Electric connection

MOD	SBHE061	NR	000000/01/08		
POWER SUPPLY		3N 400V AC 50 HZ			
OVEN POWER kW	10,0	BOILER POWER kW	1,0		
TOT. POWER kW	11,4	CE	Gx	IP	

fig. 7

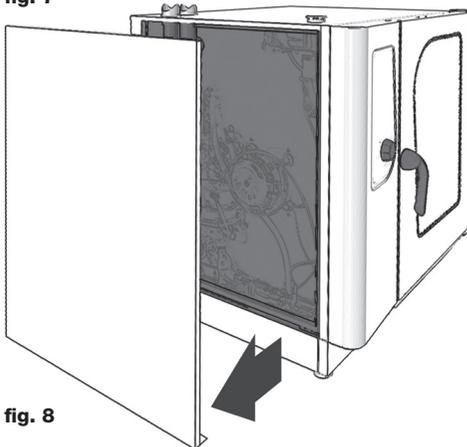


fig. 8

voltage and frequency values of the mains must be checked to verify they are compliant with the appliance requirements indicated on the technical plate (fig. 7).

For direct connection to the mains it is necessary to interpose a device between the equipment and the same mains, dimensioned depending on the load, that ensures its disconnection and which contacts have an opening distance enabling the full disconnection in the conditions of over-voltage category III, in compliance with the installation regulations; this device also must be located in a place and in a manner to be easily accessible at any moment by the operator.

Bring the main switch, to which the power supply cable plug will be collected, in position 0 (zero). Have professionally qualified staff check that the plug cables' section is adequate to the power absorbed by the appliance.

Loosen the screws fixing the left side of the oven and extract it (fig. 8).

The flexible cable must be made of polychloroprene or synthetic elastomer under equivalent oil-resistant sheath. Use a cable with adequate section to the load corresponding to every appliance, as shown in the table (tab. 1).

Models	SBHE061	SBTE061 SBPE061	SBHE101	SBTE101 SBPE101	SBHE102	SBTE102 SBPE102	SBHE201	SBTE201 SBPE201	SBHE202	SBTE202 SBPE202
Voltage	3N 400V	3N 400V								
Frequency (Hz)	50	50	50	50	50	50	50	50	50	50
Absorbed power (kW)	11.4	10.4	16.7	15.7	28.3	25.8	33.3	30.8	54.1	51.6
Cable section power supply (mm ²)	5 x 2.5	5 x 2.5	5 x 4	5 x 4	5 x 6	5 x 6	5 x 10	5 x 10	5 x 10	5 x 10

Models	SBGE061	SBTG061 SBPG061	SBHG101	SBTG101 SBPG101	SBHG102	SBTG102 SBPG102	SBHG201	SBTG201 SBPG201	SBHG202	SBTG202 SBPG202
Voltage	1N 230V	1N 230V								
Frequency (Hz)	50	50	50	50	50	50	50	50	50	50
Absorbed power (kW)	12+1.4	12+0.4	19+1.7	19+0.7	28+3.3	28+0.8	38+3.3	38+0.8	56+4.1	56+1.6
Cable section power supply (mm ²)	3 x 1.5	3 x 1.5	3 x 1.5	3 x 1.5	3 x 2.5	3 x 1.5	3 x 2.5	3 x 1.5	3 x 2.5	3 x 1.5

1. Installation

1.6. Electric connection

Electric ovens	Gas ovens
L1 L2 L3 N	L N

Between phase and **there must be a** potential difference of 230 V.

tab. 2



fig. 9

For the electric connection, refer to the electric layouts in the appendix to this manual.

Place the power supply cable inside the cable gland hole in the lower part, on the left of the oven.

Connect the cable to the terminal board following the indications in **tab. 2**.

Lock the cable with the cable gland.

The power supply voltage with machine functioning, must not be different from the nominal voltage value of $\pm 10\%$.

The equipment must be included in an equipotential system which efficiency must be checked according to that reported in the Standard in force. For the connection there is a clamp, located on the frame and marked with the symbol of **fig. 9**, to which a cable with minimum section of 10 mm² must be connected.

For gas ovens, complete gas connection to the appliance before assembling the oven side again; for electric ovens assemble the oven side.

1. Installation

1.7. Gas connection (only for gas ovens)

		CAT		G30	G31	G20	G25	COUNTRY
CE		II 2H3+	P mbar	28-30	37	20	/	IT-ES-IE-PT GB-GR-CH
		II 2H3B/P	P mbar	30	30	20	/	IT-GR-FI-EE-NO LV-CZ-SK-3I-SL
TYPE	A ₁ B ₁₁	II 2E+3+	P mbar	28-30	37	20	25	FR-BE
MOD		II 2H3B/P	P mbar	50	50	20	/	AT-CH
NR		II 2ELL3B/P	P mbar	50	50	20	20	DE
		II 2L3B/P	P mbar	30	30	/	25	NL
Σ Q _n	kW	II 2E3+	P mbar	28-30	37	20	/	LU
G30	G20	G25	I 2B/P	P mbar	30	30	/ /	MT-IS-HU-CY
			I 3+	P mbar	28-30	37	/ /	CY
kg/h	m ³ /h	m ³ /h	I 2E	P mbar	/	/	20	PL
PREDISPOSTO A GAS – PREVU AU GAZ PRESET FOR GAS – EINGESTELLT AUF GAS PREDISPUERTO A GAS – PREDISPOSTO A GAS				A				mbar
			kW	IP	EN 203-1	MADE IN ITALY		

fig. 10

Installation prescriptions

The oven installation and commissioning operations must be carried out only by qualified staff according to regulations and Standards in force.

The gas systems, the electric connections and the installation premises of the appliances must be compliant with regulations and Standards in force.

Bear in mind that the air necessary for combustion of the burners is of 2 m³/h per kW of installed power.

In activities open to the public, the Standards for the safety prevention of accidents and fire and panic must be complied with.

The connection to the gas supply fitting can be carried out using flexible metal piping, interposing an approved shut-off cock in an easily accessible point.

Ensure that the flexible metal connection tube to the gas inlet fitting does not touch overheated parts of the oven and that it is not submitted to torsion or extension stresses.

Use securing clips compliant with installation Standards.

Checks to be carried out before installation

On the technical plate located on the left side of the oven (fig. 10, ref. A) check that the appliance has been tested for the type of gas available with the user.

Check the data on the technical plate (fig. 10) that the pressure reducer capacity is sufficient for powering the equipment.

Avoid interposing section reductions between the reducer and the appliance.

We recommend mounting a gas filter upstream of the pressure regulator to guarantee optimal oven functioning.

Nota bene

The oven is originally calibrated for functioning with the gas type specified during ordering.

The type of gas for which the oven is adjusted is reported on the technical plate on the appliance (fig. 10, ref. A).

During testing, ascertain the factory calibrations carried out on the burners are appropriate for the specific installation type, by means of analysis of the gases produced by combustion (CO₂ and CO) and check of the thermal capacity.

Specifically, with oven functioning at full capacity, the values of the undiluted CO present during draining, must be within 1000 ppm. If the presence of undiluted CO over such limit is detected, the adjustment of the burners must be checked by a technician authorised by the manufacturer, who will make all due amendments to the devices governing combustion and to the relative parameters.

The detected data must be recorded and become integrating part of the technical documentation of that appliance.

1. Installation

1.7. Gas connection (only for gas ovens)

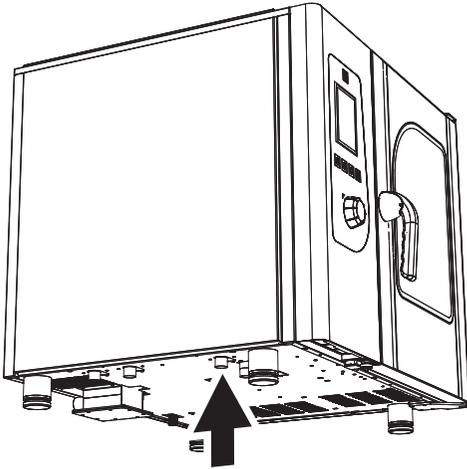


fig. 11

Connect the oven to the gas supply system by means of special G 3/4" tube with internal section of not less than 20 mm of diameter (**fig. 11**).

Envision cocks or gates having an internal diameter of not less than the above-said fitting tube.

After gas connection, check there are no leaks on the joints and fittings. For this purpose, use soapy water or a specific foamy product to detect leaks.

It is opportune for the routine maintenance of the gas ovens to be carried out yearly, in compliance with specific Standards, by an authorised technician; during which the fuel gas will be analysed and the thermal power checked.

1.8. Fumes exhaust

In compliance with installation Standards, the ovens must be started in premises suitable for evacuation of the combustion products.

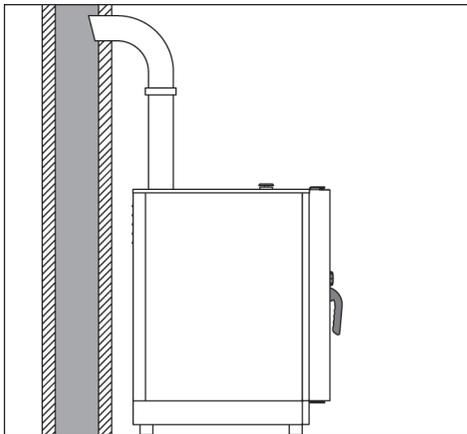


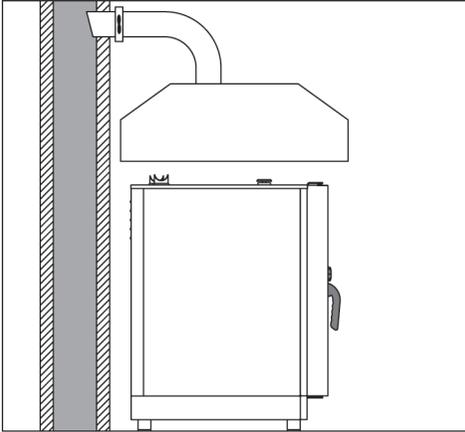
fig. 12

It is possible to connect the flue passage in two ways.

- By means of connection to a natural duct, like an efficient natural draught flue to evacuate combustion products directly to the outside (**fig. 12**). The continuation happens towards the outside or to a flue by means of a conveyor. Such intervention must guarantee evacuation of the fumes happens without obstructions and/or excessive length of the draining tube (maximum 3 m).

1. Installation

1.8. Fumes exhaust



- By means of a forced evacuation system, like a hood equipped with mechanical extractor fan. In this case, the gas supply to the appliance must be directly controlled by such system and must interrupt should capacity drop below the prescribed values. When the appliance is installed underneath the extractor hood, check that the following indications are complied with:
 - a) the extracted volume must be above that of the generated fuel gas (see Standard in force);
 - b) the material with which the hood filter is made must resist the fuel gas temperature that, at conveyor outlet, can reach 300°C;
 - c) the end of the evacuation duct of the appliance must be positioned inside the projection of the hood base perimeter;
 - d) the re-admission of the gas to the appliance must only be possible manually (**fig. 13**).

1. Installation

1.9. Oven start-up and testing

Before commissioning the oven, scrupulously carry out the necessary checks to ensure the compliance of the systems and installation of the appliance with the legal Standards and technical and safety indications in this manual.

The following points must also be satisfied:

- The ambient temperature of the place of installation of the oven must be higher than +4° C.
- The cooking compartment must be empty.
- All packaging must be fully removed, including the protective film applied on the oven walls.
- The air vents and louvers must be open and not obstructed.
- The eventually dismantled oven pieces must be, for installation purposes, re-mounted.
- The main electric switch must be closed and the water and gas shut-off cocks upstream of the appliance must be open.

Testing

The oven test is carried out by completing a sample cooking cycle enabling to check the correct functioning of the appliance and the absence of anomalies or problems.

Turn on the oven using the key of main switch **T8** (see control panel description in appendix).

Set a cooking cycle with temperature at 150°C, time at 10 min. and humidity at 5%/min.

Press key **T7** "Start/Stop".

Scrupulously check the following list:

- The lights inside the cooking compartment switch-on by pressing the appropriate key and, after 45 seconds, unless switched off by pressing the key again, automatically switch-off.
- The oven stops if the door is opened and starts working again when the door is closed.
- The adjustment thermostat of the temperature inside the cooking compartment intervenes upon reaching of the set temperature and the heating element(s) is/are temporarily switched off; the intervention of the thermostat is indicated by the temporary switch-off of LED **L1** on the oven's control panel.
- The fan(s) motor performs automatic inversion of the rotary direction; inversion happens every 3 minutes.
- In ovens with two fans in cooking compartment, the motors have the same rotary direction.
- Verify the leaking of water towards the fan of the humidity input tube in cooking compartment.
- Once cooking cycle is completed, the oven emits a sound warning signal that lasts about 15 seconds.

2. Use instructions

2.1. Preliminary information

The appliance has been designed to cook food in closed premises and must only be used for this purpose: any other different use must, therefore, be avoided as considered improper and dangerous.

Survey the equipment during functioning.

Before cooking, we recommend pre-heating the oven at a temperature of about +30°/+40°C higher than that required.



fig. 14

Once on, the oven may be in two states: “stand-by” and “start”. The active state is signalled by LED **L6** (fig. 14); if the LED is on, the appliance is powered and in “stand-by”, if the LED is off (and the display on) the appliance is in “start”.

The “touch-screen” display with which the oven is equipped enables an immediate and intuitive access to all functions. The parameters and settings of each individual function can be set by choosing the display function, selecting the desired value by rotating the knob **M** (fig. 14) and confirming such value by again pressing the key or the knob **M**. Upon start-up the display is in the “menu” condition (fig. 14).

The selectable options are “**Cottura manuale (Manual cooking)**”, through which access is gained to direct setting of the cooking parameters, “**Ricette (Recipes)**”, to use a previously set cooking sequence (see page ...) and “**Service**”

The control panel of the oven is equipped with single knob **M** (fig. 14) for the entering and amending of the appliance functioning parameters. Such knob can also be pressed to select a function or confirm a certain parameter. The knob acts on a digital encoder and, therefore, is in continuous rotation (no end run). The parameters adjusted by the encoder vary clockwise increasingly.

The oven is now ready for use in “stop” conditions and remains in stand-by for input by the user.

2. Use instructions

2.2. Choice of cooking method

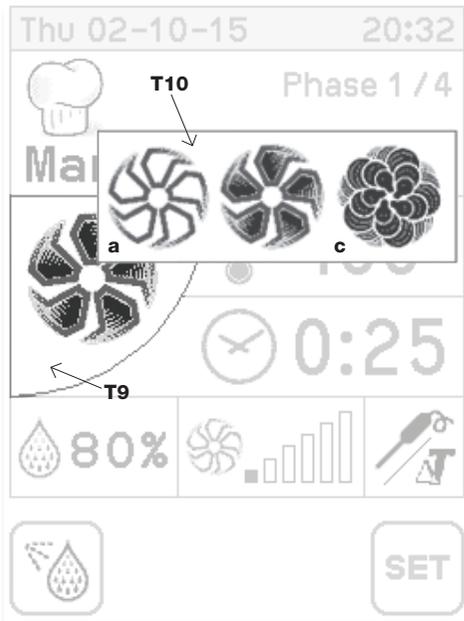


fig. 15

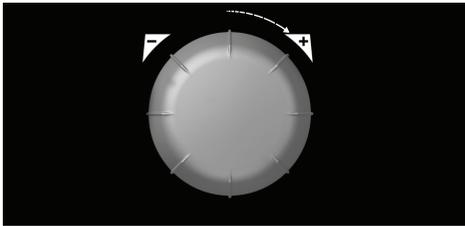


fig. 16

From initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). Select cooking mode by pressing key **T9** (fig. 15); the display opens a selection window **T10** (fig. 15) with the three choices: **a** = convection, **b** = combi convection/steam, **c** = steam (fig. 15). Select the wanted mode by pressing display **T10** (fig. 15). The set parameter can be confirmed by pressing knob **M** (fig. 16) of the encoder.

2. Use instructions

2.3. Setting of temperature

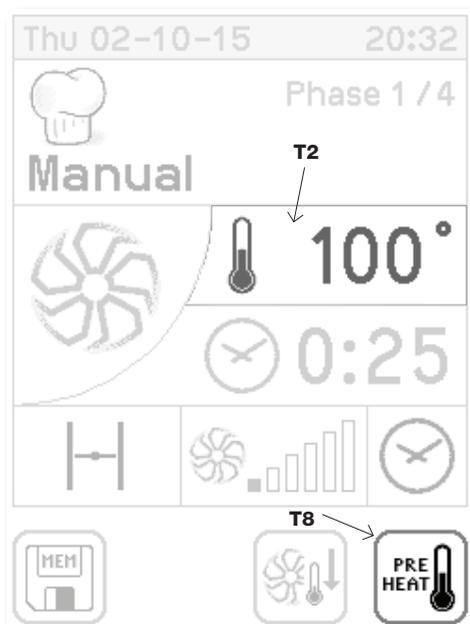


fig. 17

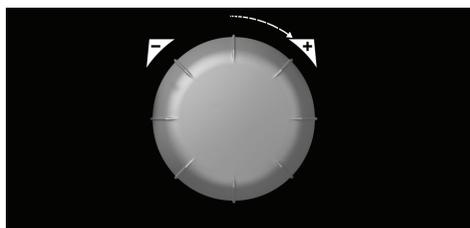


fig. 18

Select the temperature setting on display (**T2** - **fig. 17**) and choose the temperature by turning knob **M**. Confirm by pressing knob **M** or display **T2**.

The oven is able to reach and maintain temperatures that vary from +50° to +300°C.

Oven pre-heating

Once the cooking temperature has been set, the oven pre-heating function can be selected by pressing key **T8** (**fig. 17**): in pre-heating phase the **T8** key becomes red coloured. The oven determines the pre-heating temperature, which achievement is signalled by an acoustic warning.

2. Use instructions

2.4. Time setting



fig. 19

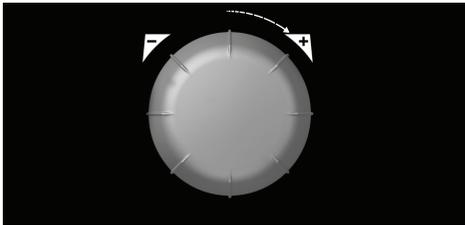


fig. 20

From initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). Select the time setting by pressing key **T3** from display (fig. 19) and set time by turning knob **M** (fig. 19) and set time by turning knob **M**. The set parameter can be confirmed by pressing key **T3** again or by pressing knob **M** (fig. 20) of the encoder.

The oven can manage cooking cycles that vary from 1' to 120'.

The cooking time is calculated starting from the moment key **S** "Start" (fig. 14 pag. 13) is pressed and is temporarily interrupted by the opening of the door or by a non-serious alarm.

In case of serious alarm, the cooking cycle is definitively interrupted and, once the problem causing the alarm is solved, it cannot be restarted from where it was interrupted; in such case, a new cooking cycle must be set.

Upon expiring of the set minutes, the oven automatically stops taking itself to "stand-by" position, and emits a sound warning signal for about 15 seconds.

The cooking cycle can also be carried out without a pre-established cooking time. To set cooking in manual (without time limit), decrease the set time using knob **M** of the encoder until dropping below 1'; in this way display **T3** will show "**INF**".

2. Use instructions

2.5. Humidity setting - The “Steam-tuner” function



fig. 21

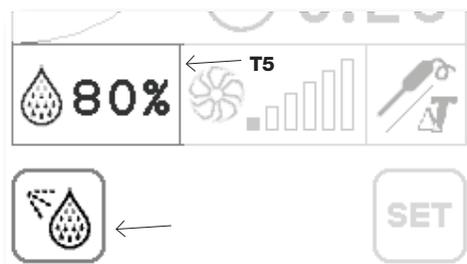


fig. 22



fig. 23

From initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). Selecting a **steam cooking** mode the **steam-tuner T4** (fig. 21) function activates. With selector switch in the central position it indicates optimal steam regulation in the cooking chamber and guarantees 100% humidity saturation in the cooking chamber. It is possible to adjust the quantity of steam forced into the chamber by pressing the **+** or **-** keys based on the desired type of cooking. Moving the selector switch towards **+** will produce a “wetter” steam (for example for cooking potatoes for purée); the opposite, moving towards **-** causes the steam to be more “dry” (for example when preparing Catalan cream).

In **combi convection-steam** cooking mode it is possible to set the percentage of humidity present in the cooking chamber by pressing the **T5** key and rotating the knob **M** of the encoder in ascending clockwise direction.

In **convection cooking** mode instead it is possible to manually enter cooking chamber humidity using the **Humidifier** function and keeping the related **T5** key pressed (fig. 22).

2. Use instructions

2.6. Setting of the rotary speed of the fan(s)



fig. 24

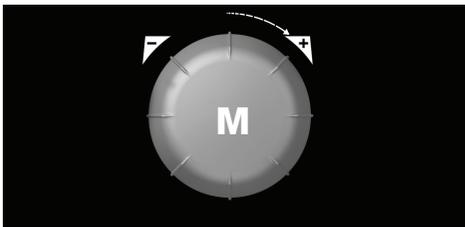


fig. 25

From initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). Therefore, select the rotary speed setting of the fan(s) by pressing relative key **T5** (fig. 24); by turning knob **M** (fig. 25) the indicator histogram switches on and the appliance remains in this mode for 5 seconds, after which the parameter is accepted. Confirmation of the set parameter is also had by pressing key **T5** again or knob **M** (fig. 25) of the encoder; the display stops flashing and switches to displaying mode of the set rotary speed parameter of the fan(s).

The set parameter can be confirmed by pressing key **T5** again or knob **M** (fig. 25). The display stops flashing and switches to displaying mode of the set rotary speed parameter of the fan(s).

The oven has 6 rotation speeds of the fan/s, that are selectable by the user.

2. Use instructions

2.7. Cooking with core probe - ΔT

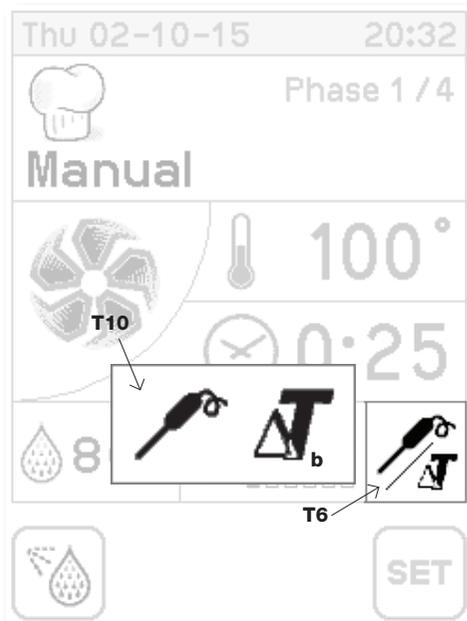


fig. 26 Δ

fig. 27 ∇



From initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). Select option "**Core/ ΔT** " by pressing relative key **T6** (fig. 26); the display opens a selection window **T10** (fig. 26) with the two options: **a** = core, **b** = ΔT (fig. 26). Select the wanted mode by pressing display **T10** (fig. 26). The set parameter can be confirmed by pressing knob **M** (fig. 28) of the encoder.

Depending on the selected mode, the relative temperature selection square will activate on the display (**T11** - **T12** - fig. 27). The core mode determines the cooking time based on the temperature recorded by the core probe: once selected the compartment and core temperature, cooking stops the moment the temperature of the product being cooked recorded by the core will reach the set value.

The ΔT mode instead determines temperature in the cooking chamber based on temperature detected by the core probe: setting a ΔT value equal to 60° for example, the temperature in the chamber will be maintained constantly 60° above what is detected at the core of the product. Cooking will stop when temperature of the product being cooked, recorded by the core probe, reaches the set value.

Set the wanted temperature by turning knob **M** of the encoder clockwise increasingly; confirm selection by pressing knob **M**.

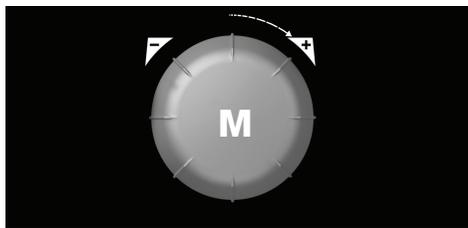


fig. 28

2. Use instructions

2.8 Cooking compartment cooling

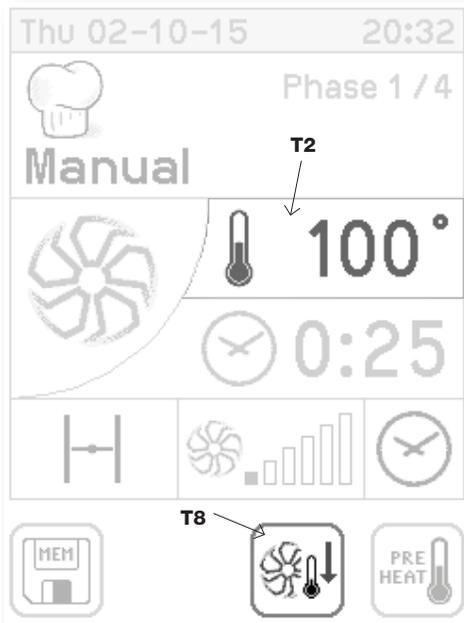


fig. 29

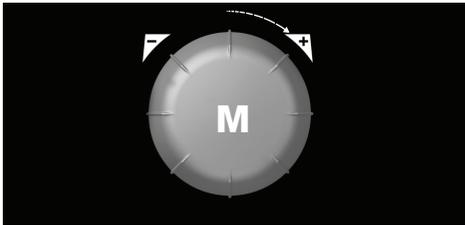


fig. 30

The cooling function enables the operator to rapidly make the temperature inside the cooking compartment drop.

In order to carry out a cooling cycle in the cooking chamber, from initial **Menu** (fig. 14), if not already active, access is gained to **Manual** mode by pressing the relative key **T1** (fig. 14). It is now possible to open or close the oven door, depending on the type of cooling wanted, and by pressing key **T8** (fig. 29) followed by **Start** that begins the cycle. During cooling the fan/s turn at speed 6. In this phase it is not possible to intervene manually to close the valve.

The cooling cycle only starts if cooking chamber temperature exceeds 65°C and ends once a temperature of 50°C is reached or the **T8** or the **Stop** key is pressed. Once cooling is completed, the humidity draining valve automatically closes.

Start/Stop

Key **S** can alternatively start a cooking cycle or end one already in progress.

In case of premature cooking cycle interruption, by using key **S** "Start/Stop", no sound signal is given.

With the same key, it is possible to silence the alarms and cooking end warning.

2. Use instructions

2.9 Humidity draining valve

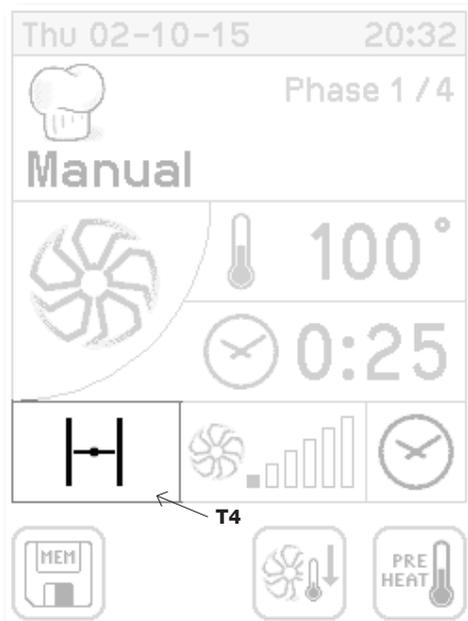
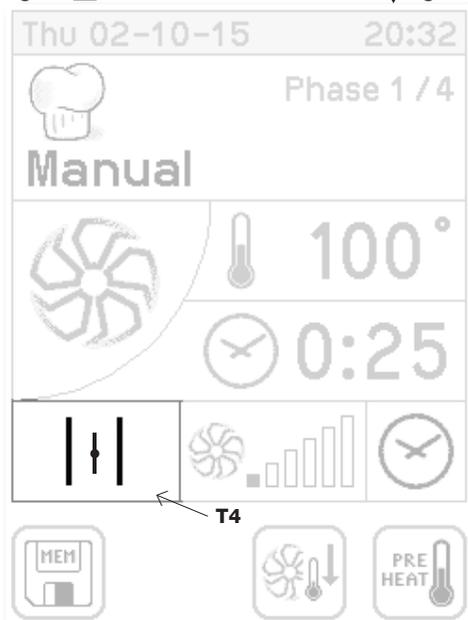


fig. 31 ▲

▼ fig. 32



The humidity draining has the task of expelling humidity formed inside the compartment during cooking cycle.

Upon oven switch-on the valve is always closed.

At the end of the cooking cycle the valve remains in the position it was in at that moment.

By pressing key **T4** (fig. 31) the opening and closing of the humidity draining valve is given.

While the valve is operating, it is not possible to give a new command.

The opening of the valve is signalled by the state change of key **T4** (fig. 32).

Even with the valve closed, there is no risk of over-pressures inside cooking compartment as they are controlled by the drain.

During cooling of the cooking compartment, the state of the valve is forced open and it is not possible to manually change its state. Once cooling is completed, the valve automatically closes.

It is only possible to use the butterfly valve in convection cooking mode, it is automatically opened in the other ones.

2. Use instructions

2.10. Cooking chamber lighting



fig. 33

The oven switches off by keeping the "0" key of main switch pressed **L6 (fig. 33)**.

The gas and water shut-off cocks upstream of the appliance must be closed.

It can happen that, upon oven switch-off, ventilation of the technical compartment located behind the panel continues working to complete cooling.

The lighting of the cooking compartment switches on by pressing key **L8 (fig. 33)** and switches off in the same way; the switching on of the lights is timed and automatically ends after 45 seconds.

The opening of the oven door causes the temporary switching off of the lighting; upon closing of the door the lights switch-on again for the time remaining to reach the 45 seconds.

2. Use instructions

2.12. Saving and managing recipes

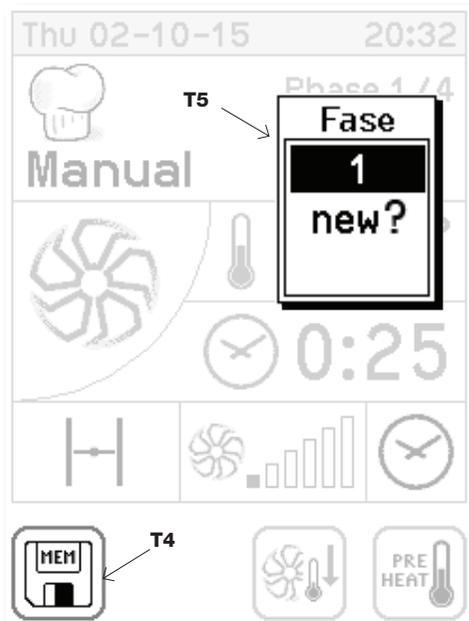
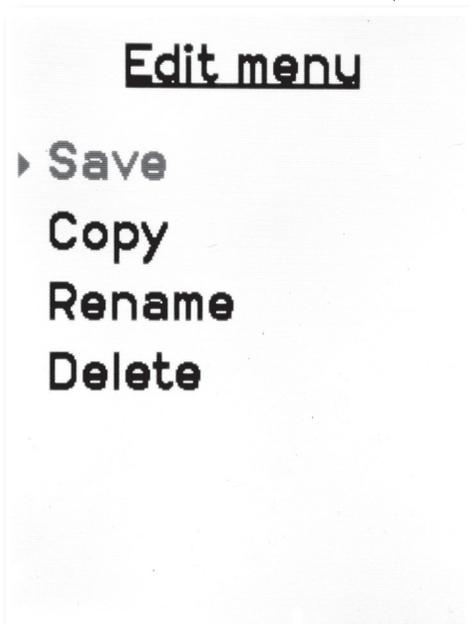


fig. 34 ▲

▼ fig. 35



Each individual phase of the previously illustrated cooking, can be memorised to compose a recipe.

Once the phase setting is complete, press the **T5 - Phase key** (fig. 34). Access is gained to the drop-down menu **T5** (fig. 34).

Confirmation of the recipe phase memorisation is had by pressing on display or by means of knob **M** (fig. 36).

Set the subsequent phase and proceed with relative memorisation by selecting “new” by turning knob **M** (fig. 36).

Once the recipe is completed, proceed with memorisation by pressing the **T4 key** (fig. 34). This accesses the **Menù modifica (Modification menu)** (fig. 35).

Attention:



- In case cooking time is set on INF (infinite), it will not be possible to set the subsequent phase, since phase 1 has no end.

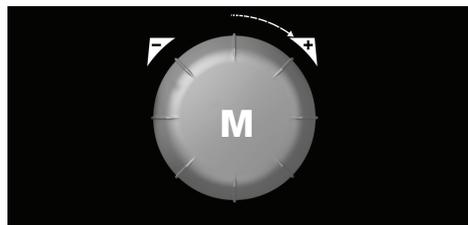


fig. 36

2. Use instructions

2.12. Saving and managing recipes

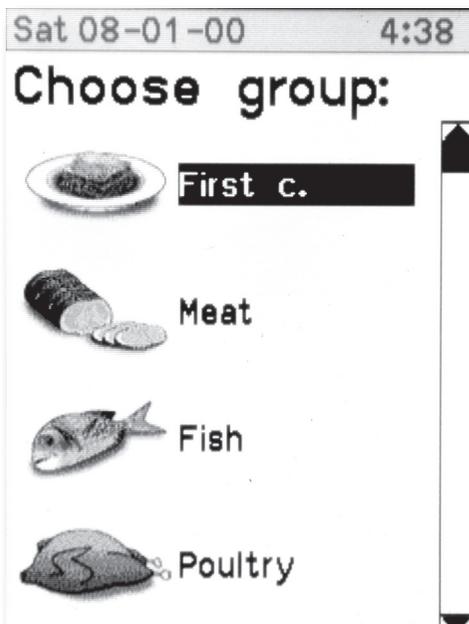
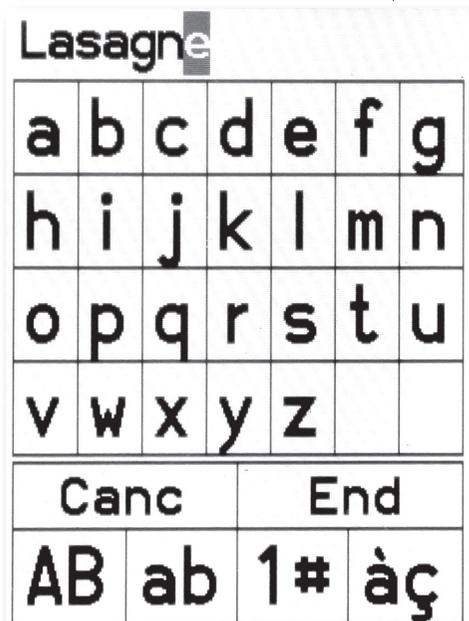


fig. 37 ▲

▼ fig. 38



It will request the selection of the group where the recipe is to be memorised, based on the plate type (fig. 37). Select the group by rotating knob **M** and confirm choice by pressing the name of the group or the **M** key (fig. 39).

Enter the name to be assigned to the recipe using the alpha-numeric keypad and confirm by pressing **End** (fig. 38).

Once it is confirmed that the recipe is saved, the recipe start screen appears.

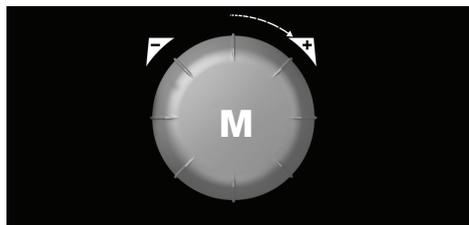


fig. 39

2. Use instructions

2.12. Saving and managing recipes

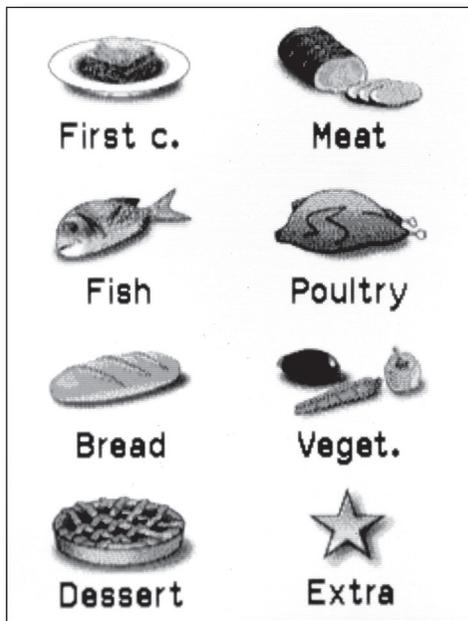


fig. 40 ▲

▼ fig. 41



In order to load a recipe previously saved in oven memory, access the Recipes menu from the main menu. Choose the group that the recipe belongs to (fig. 40). Select the desired recipe by rotating knob **M** and confirm choice by pressing the name of the recipe or the **M** key (fig. 42).

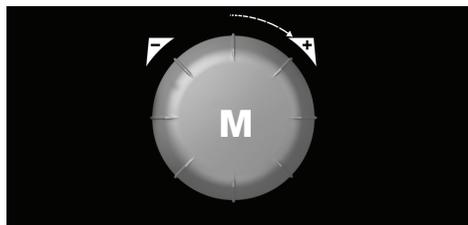


fig. 42

3. Service Menu

3.1. Washing

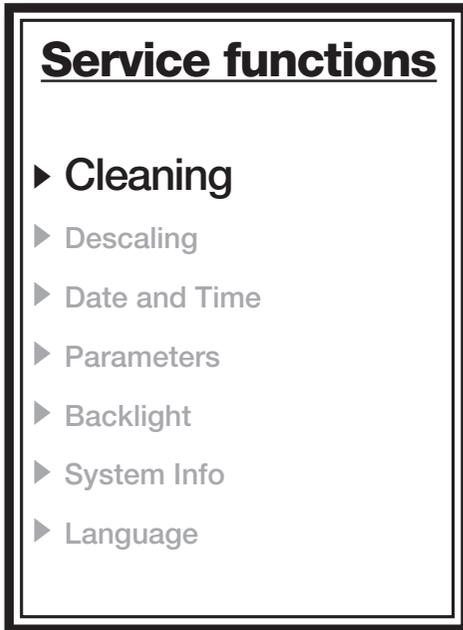


fig. 43 ▲

▽ fig. 44



The SERVICE menu, accessible from the Main menu (fig. 14 - pag. 13), allows access to main routine maintenance and oven use setting functions.

Selection of the pre-chosen function is made by turning knob **M** (fig. 45), then pressing it for confirmation.

THE WASHING FUNCTION (fig. 43) enables manual washing of the cooking compartment. The washing cycle is made of 4 phases:

- in the first phase, of the duration of 5", steam is generated in the compartment to dampen the surfaces;
- upon the acoustic signal warning completion of the first phase, open the oven door and spray the compartment doors with a detergent for ovens. **DO NOT USE CHLORINE BASED PRODUCTS**;
- close the oven door. A new steam cycle is starting;
- upon acoustic signal, open the oven door and sufficiently rinse using appropriate sprayhead.

In ovens equipped with Automatic washing function, the above described phases happen automatically. With this type of ovens, to perform washing, connect the pump float to a detergent tank and select **Washing** (fig. 44). The 4 automatic washing levels (Hard, Intenso, Normale, Soft) are to be selected based on the degree of cleaning necessary to remove cooking residue in the compartment (Hard=deep cleaning, for very resistant filth, Soft=light washing).

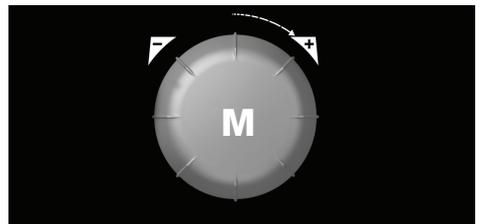
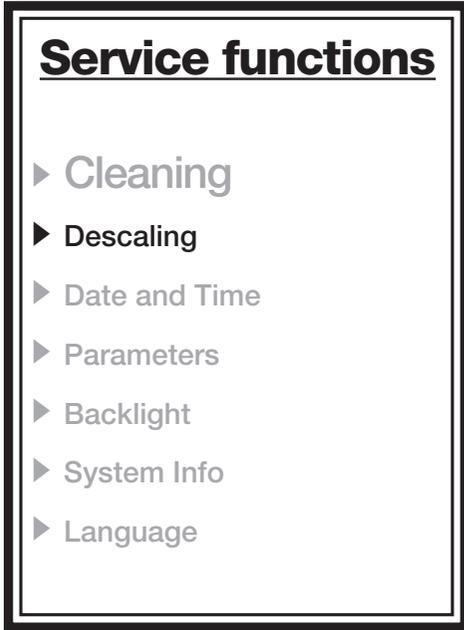


fig. 45

3. Service Menu

3.2. Descaling



After 350 hours of functioning, the oven requests to proceed with **Descaling (fig. 46)**.

Loosen the closing cap of the small tube located inside the steam drain (**fig. 47**) and, by means of a funnel, pour 0.4 l of vinegar inside the small tube.

To start the descaling process press **Start**.

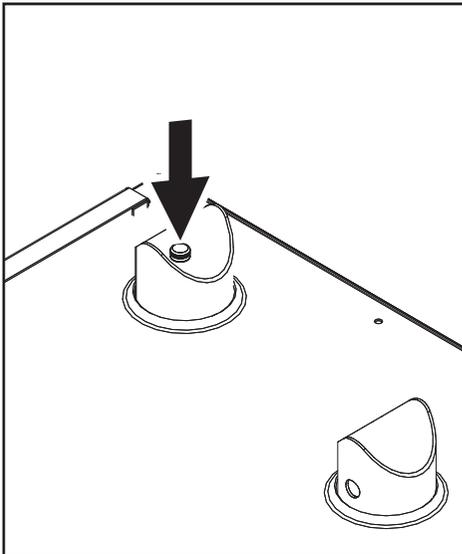
The process lasts about 6 hours.

Frequency of the descaling cycle is to be defined based on hardness of the water. More calcium there is and the more frequent descaling cycles must be.

In order to reduce deposits, a water softener should be used.

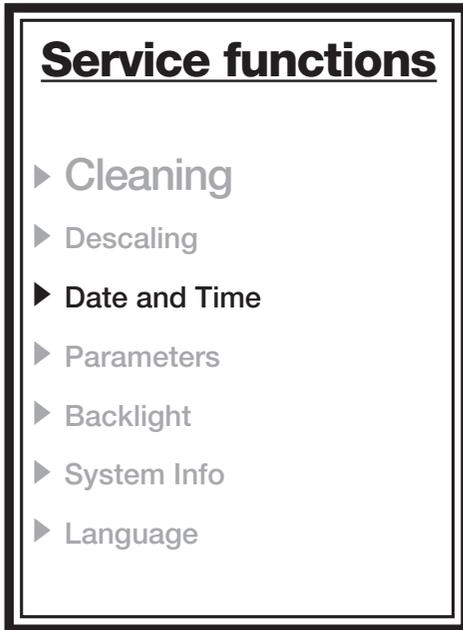
fig. 46 ▲

▼ fig. 47



3. Service Menu

3.3. Date and time



The **Date and time function (fig. 48)** allows setting the current date and time parameters for oven use.

fig. 48 Δ

∇ fig. 49



3. Service Menu

3.4. Parameters

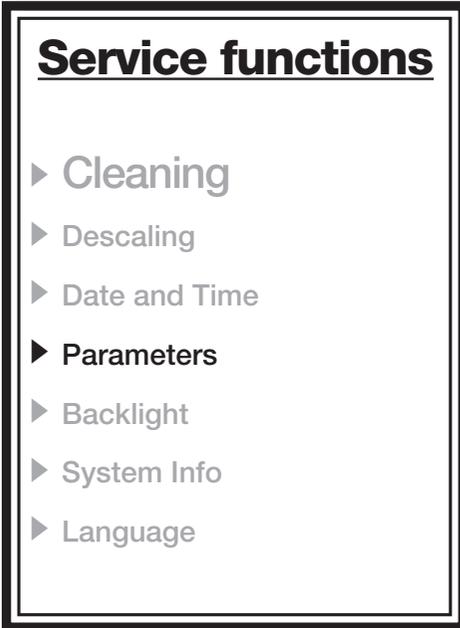
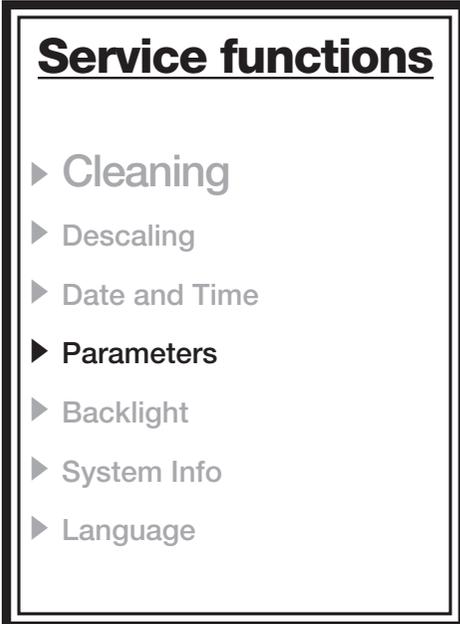


fig. 50 ▲

▼ fig. 51



The **Parameters function (fig. 50)** can only be accessed by entering a numerical password, that can be selected using knob M.

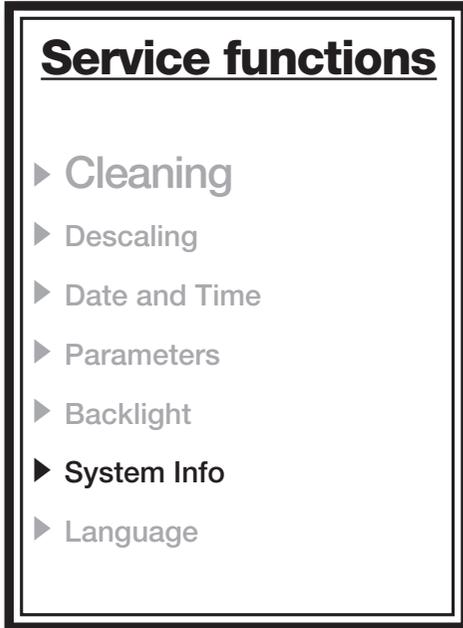
The setting and amendment of the oven functioning parameters must be carried out by specialised staff.

3.5 Retroilluminazione (Backlight function)

The **Backlight function (fig. 51)** allows setting the level of brightness of the display.

3. Service Menu

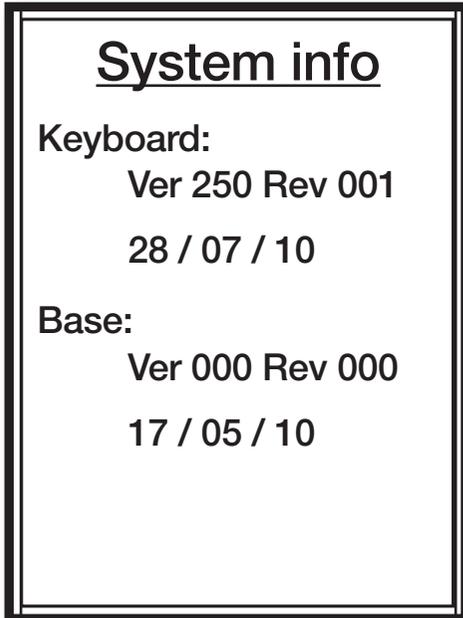
3.6. System Info



The **System info (fig. 52)** refers to the oven software control version currently installed.

fig. 52 

 fig. 53



3. Service Menu

3.7. Language

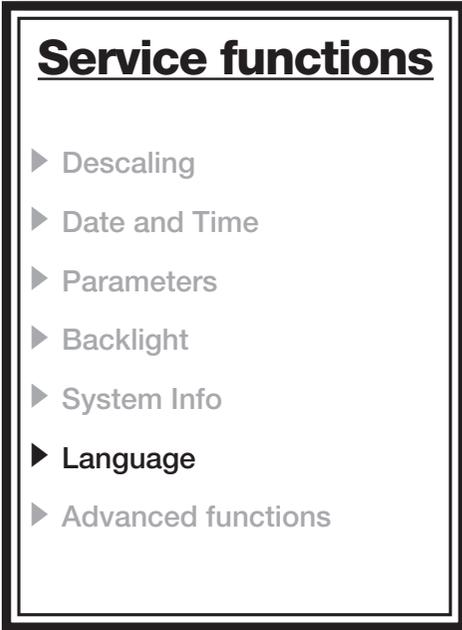


fig. 54 ▲

▼ fig. 55



Using the it is possible to select the displaying language of the messages on the display. The following languages are standard: .

The following language groups are also available: **Italian, English, Spanish, French, Portuguese.**

Western Europe: **Italian, English, French, Spanish, Portuguese;**

Northern Europe: **Italian, English, German, French, Dutch**

Eastern Europe: **English, German, Hungarian, Romanian, Polish**

3. Service Menu

3.8. Advanced services

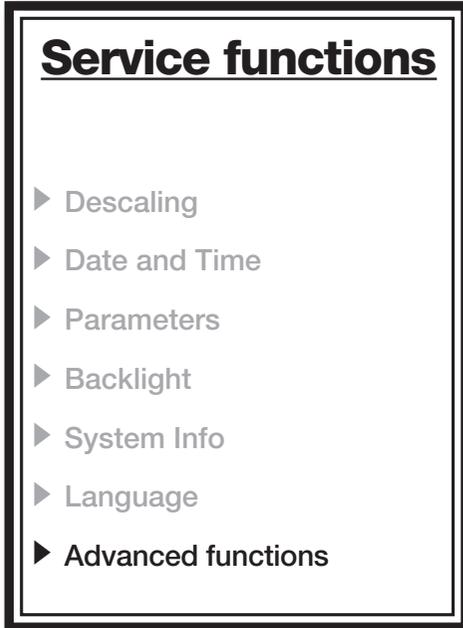
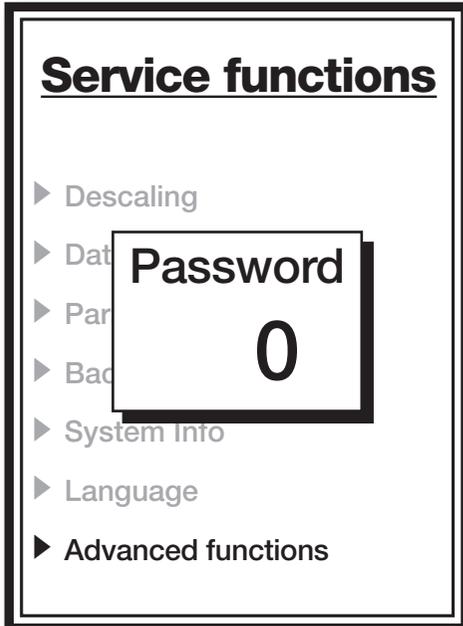


fig. 56 Δ

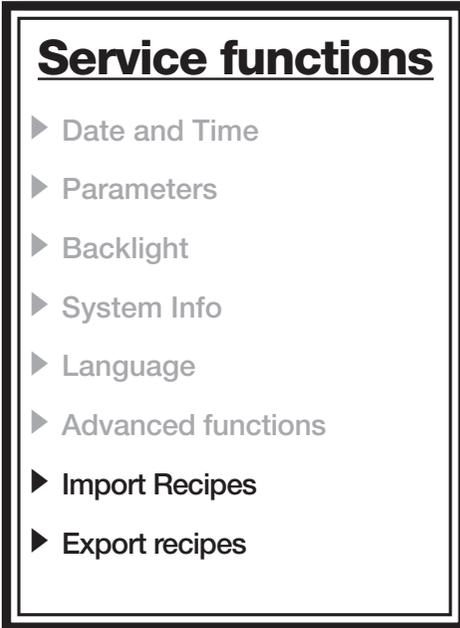
∇ fig. 57



The **Servizi avanzati (Advanced services) function (fig. 56)**, protected by numeric password that can be selected using knob M gives access to testing functions that are reserved to qualified technicians.

3. Service Menu

3.9. Import/Export recipes



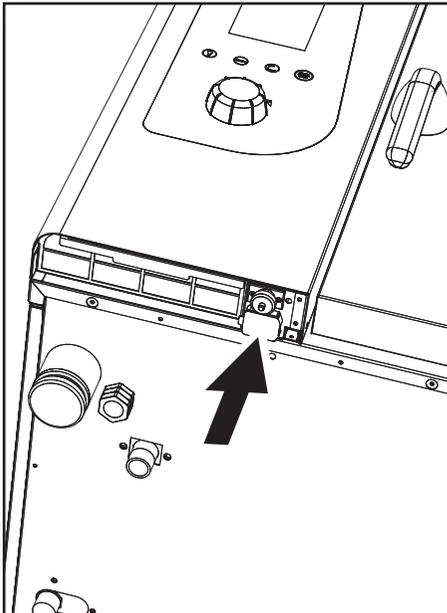
By inserting a pen drive in the USB port located under the control panel (**fig. 59**) the recipe import and export functions are activated.

The **Import recipe function (fig. 58)**, allows loading into memory recipes that were previously set on the PC or exported from another oven.

The **Esporta ricette (Export recipes) function (fig. 58)**, allows loading to the USB pen drive recipes that were previously saved in oven memory.

fig. 58 Δ

∇ fig. 59



4. Maintenance

4.1. Cleaning

At the end of a working day, clean the equipment, both for hygienic reasons and to avoid malfunctioning.

The oven must never be cleaned using direct or high pressure water jets. In the same manner, to clean the appliance do not use pan-scrubbers, steel brushes or scrapers; it is eventually possible to use stainless steel wool, rubbing it in the direction of the sheets satin finish.

Wait for the cooking compartment to cool down.

Remove the side tray racks.

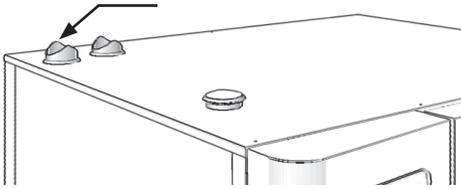
Remove the manually removable residues and place the removable parts inside dishwashers.

To clean the cooking compartment use soapy warm water. Subsequently, all interested surfaces must be thoroughly rinsed, being careful to ensure no detergent residues remain.

To clean the oven external parts, use a damp cloth and a non-aggressive detergent.

4. Maintenance

4.2. Humidity draining



The humidity draining expels the steams produced inside the cooking compartment.

Check it is always clean and perfectly clear from obstructions.

4.3. Cleaning of the glass



fig. 60

The door glass can be cleaned externally and internally. For this purpose, turn the stop holding the internal glass (**fig. 60**) in position clockwise and, once the glass is opened, clean it with suitable detergent. Never use abrasive materials.

The glass must be correctly closed and locked in position by turning the stop anti-clockwise.

4.4. Cleaning of panel air filter

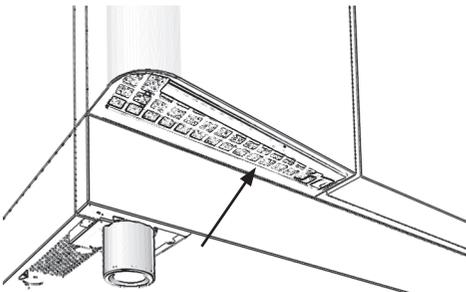


fig. 61

The cleaning of the oven panel air filter (**fig. 61**) must be carried out at least once a month washing the filter in dish-washers.

To remove the filter, pull appropriate handhold downwards.

It is opportune to replace the filter at least yearly or more frequently should the oven work in environments with a high concentration of flour or similar substances.

In any case, the filter must be replaced when worn or damaged; it must be requested from the supplier as spare part.

5. Control and safety components

5.1. Solenoid valve

The solenoid valve is the device that supplies water in the pre-established times and methods.

5.2. Door magnetic micro-switch

The door micro-switch is the device that interrupts the oven's cooking cycle upon opening of the door.

Upon subsequent closing of the door, the interrupted cycle re-starts normally.

Do not manually activate this device with the oven door open.

5.3. Motor thermal protection

The fan motor is equipped with an incorporated thermal protection that interrupts its functioning in case of over-heating.

The motor functioning reset is automatic and takes place as soon as its temperature drops, returning within the safety limits.

5.4. Safety thermostat of the cooking compartment

If the temperature inside the cooking compartment reaches 350°C, the safety thermostat interrupts supply to the oven's heating elements.

Such safety device can be restored only by an after-sales assistance service technician as further checks are required.

5.5. Flame control (present only in gas ovens)

The flame control, by means of appropriate electrode, guarantees normal functioning of the burner(s).

In case of accidental switch-off or malfunctioning of the burner(s), the system places itself in non-serious error, the gas supply is shut off and the cooking cycle is temporarily interrupted while awaiting operator intervention. The main non-serious alarm message "GAS" is displayed on the display if the problem refers to the only burner in the oven or to the upper burner in case of two burners and, eventually, the secondary non-serious alarm message "LOW" is displayed on the display, if the problem refers to the lower burner in case of two burners. To now start the flame block restore procedure, press knob **M** of the encoder for 1 second; such procedure is made of the following phases: 2 seconds stand-by, activation of restore relay for 1.5 seconds, 2 seconds stand-by. Consequently, if the procedure has positive result, cooking re-starts regularly. If not, the oven remains in error and the procedure must be repeated.

6. What to do if

6.1. Common problems

In case of a serious anomaly it is very important to switch-off the equipment, by acting on the multiple pole switch, and close the gas and water shut-off cocks upstream of the appliance.



Problem	Possible solution
The oven does not start	Check that the multiple pole switch is closed and there is mains voltage.
	Check that the gas shut-off cock upstream of the appliance is open.
	Check integrity of the oven protection fuses.
	Ensure the oven door is correctly closed.
	Check to have correctly set the cooking cycle parameters.
	Ascertain the oven is not in error.
If after these operations the oven does not start, contact the after-sales assistance.	
The fan stops during functioning	Switch-off the oven and wait for the motor thermal protection to automatically reset.
	Ensure that the cooling inlets are not obstructed.
Should the problem repeat, contact the after-sales assistance.	
Internal lighting does not work	Use lamps resistant to heat.
	Replace the lamps as follows: <ul style="list-style-type: none"> ■ Ascertain that the omnipolar switch upstream of the oven is open and the appliance is cold. ■ Open the internal glass of the oven door. ■ Remove the protection glasses of the lamps. ■ Replace the lighting lamps.
Should the problem repeat, contact the after-sales assistance.	
Water does not flow into the humidifier tubes	Check that the water shut-off cock is open.
Should the problem repeat, contact the after-sales assistance.	
The oven is in "GAS" error	Check that the gas shut-off cock upstream of the appliance is open.
	Restore the flame block (see paragraph 4.5).
	Have a technician check the electric connection sequence is correct and that a potential difference of 230 V is present between phase and \perp .
Should the oven continue not to work, due to the burners not igniting, contact the after-sales assistance.	

6. What to do if

6.2. Check to be carried out by authorised technician only

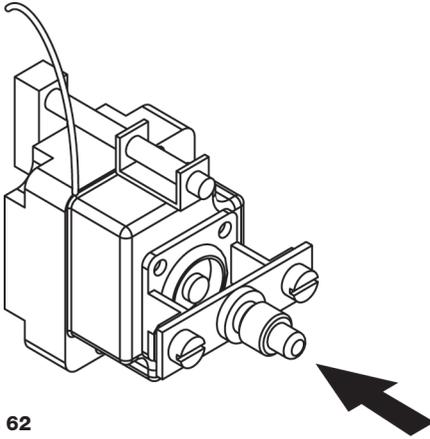


fig. 62

Disconnect the electric power supply before any adjustment or intervention.



Re-arm of safety thermostat

Loosen the screws fixing the panel and open it, making it turn to the left on its guides.

Identify the thermostat, located in the lower left part of the technical compartment, and press the red button until a mechanical sound ("click") is heard confirming the occurred closing of the contacts (**fig. 62**).

It is possible that the thermostat intervenes due to mechanical stresses to which the oven may be submitted during transport.

A continuous intervention of the safety thermostat indicates an appliance malfunctioning, making it necessary to find the causes.

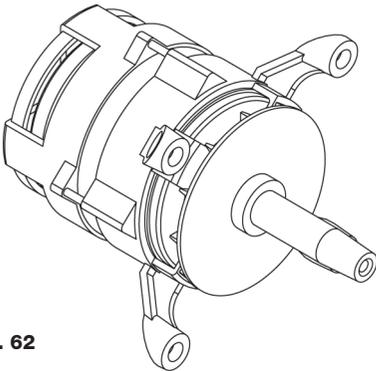


fig. 62

Motor thermal protection

The motor thermal protection automatically resets and if it intervenes, check that the louvers are clean, the cooling devices efficient and rotation is regular and without motor friction.

We recommend disconnecting the electric power supply.

Protection fuses

The protection fuses are used to protect the oven's electronic boards against overvoltages. They are found in the lower part of the technical compartment, near the re-arm button of the safety thermostat.

6. What to do if

6.2. Check to be carried out by authorised technician only

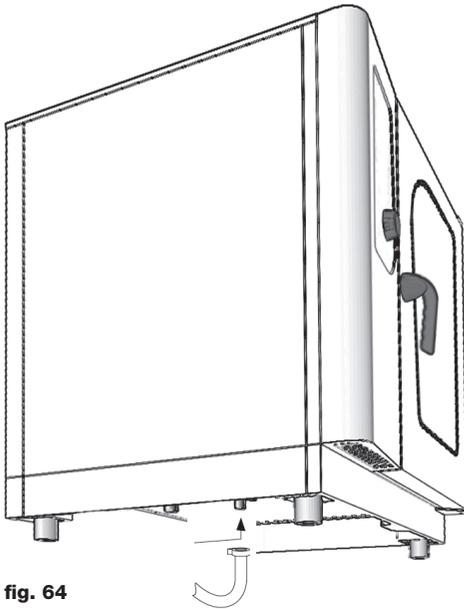


fig. 64

Water filter

If the oven no longer loads water, check the filter of the solenoid valve inlet that is behind the oven, as follows:

- close the water cock upstream of the appliance;
- disconnect the connection pipe to the water mains;
- using grippers remove the filter from inside the solenoid valve;
- clean it and re-position it correctly in its seat;
- restore pipe connection.

Flame control

Attention:

The flame control works correctly only if the oven's electric connection has been carried out respecting the phase and neutral positions. There must be a potential difference of 230 V between phase e \perp .



6.3. Spare parts management

The replacement of spare parts must be carried out only by the authorised after-sales assistance centre staff.

To identify the spare parts codes, contact the after-sales assistance service.

Once univocally identified the necessary spare parts, the after-sales assistance service will send regularly filled-in order to the manufacturing company clearly indicating the equipment model, the relative series number, the electric power supply voltage and frequency, as well as the code and description of the wanted pieces.

7. Specifications

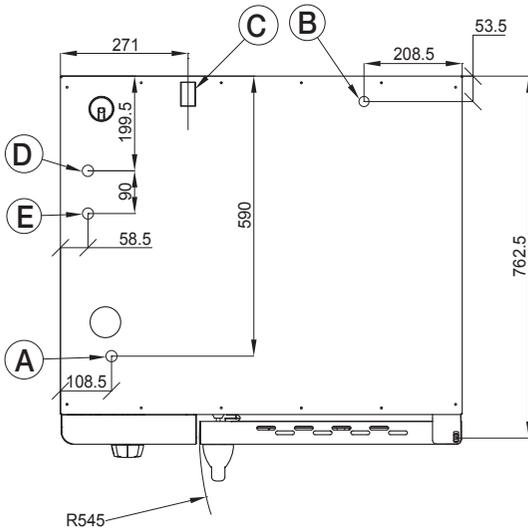
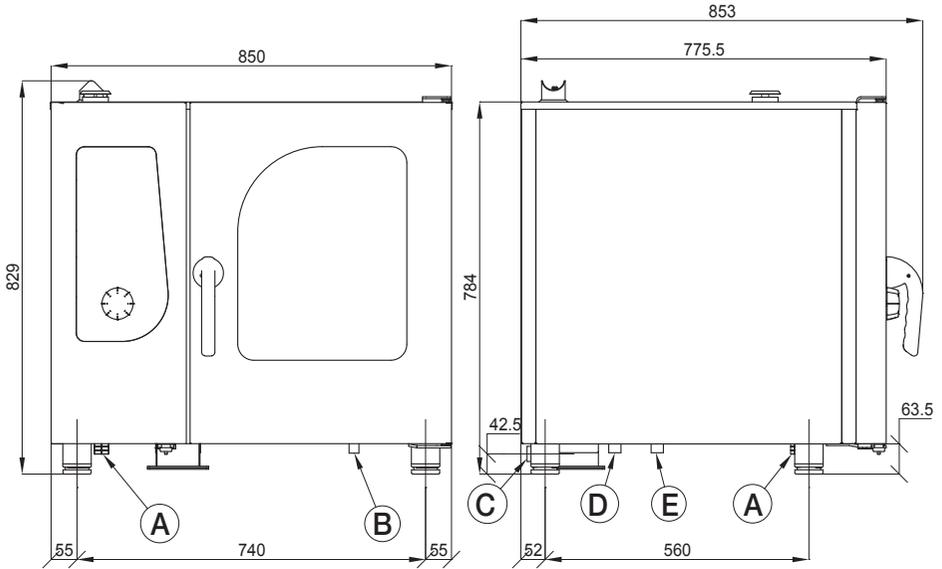
7.1. Technical data

Models	SBHG061	SBHG101	SBHG102	SBHG201	SBHG202
Pan distance between centres loading capacity	6 GN 1/1	10 GN 1/1	10 GN 2/1	20 GN 1/1	20 GN 2/1
Power supply	Electric	Electric	Electric	Electric	Electric
Cooking chamber electric power (kW)	10	15	25	30	50
Total electric power (kW)	11	16,4	16,4	32,8	52,8
Voltage	3N 400V 50 Hz				
External dimensions W x D x H (mm)	853x775x785	853x775x1065	853x775x1065	928x835x1845	1198x911x1845

Models	SBHG061	SBHG101	SBHG102	SBHG201	SBHG202
Load capacity Trays interaxis	6 GN 1/1	10 GN 1/1	10 GN 2/1	20 GN 1/1	20 GN 2/1
Power supply	Gas	Gas	Gas	Gas	Gas
Gas power cooking compartment (kW)	12 + 1,4 $\frac{1}{2}$	19 + 1,4 $\frac{1}{2}$	28 + 2,8 $\frac{1}{2}$	34 + 2,8 $\frac{1}{2}$	56 + 2,8 $\frac{1}{2}$
Voltage	1N 230V 50 Hz				
External dimensions W x D x H (mm)	853x775x785	853x775x1065	853x775x1065	928x835x1845	1198x911x1845

8. Installation layouts

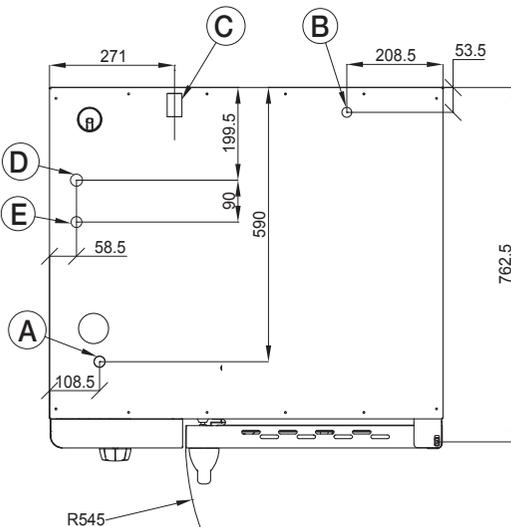
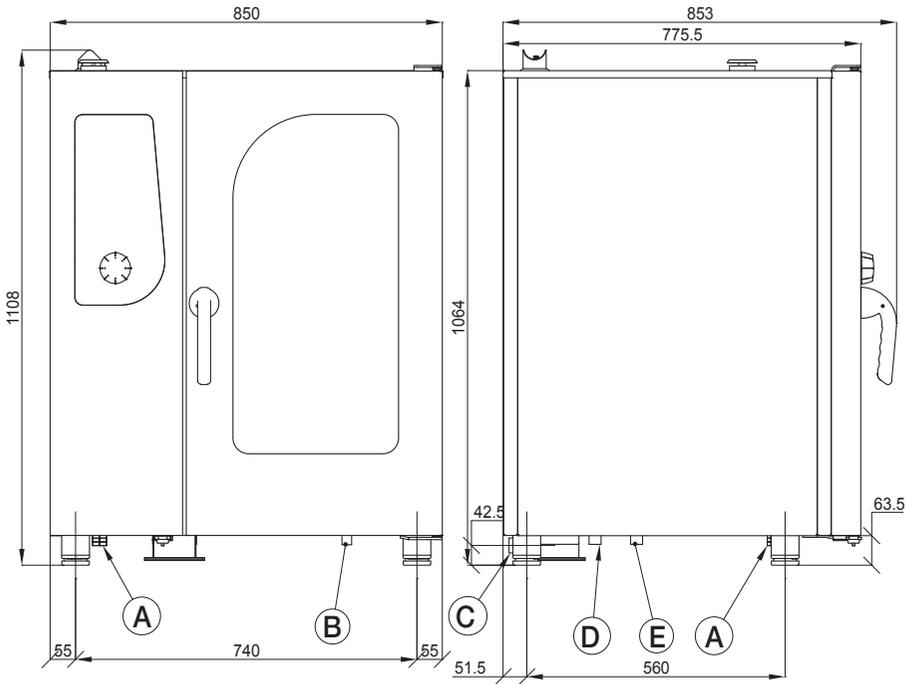
8.1. Mod. SBHE061



- (A) Electric connection
- (B) Sprayhead water inlet (G1/2)
- (C) Drain (tube Ø 32)
- (D) Unfiltered water inlet (G3/4)
- (E) Softened water inlet (G3/4)

8. Installation layouts

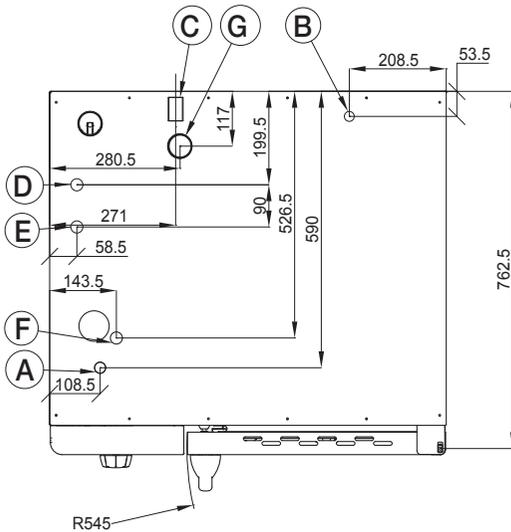
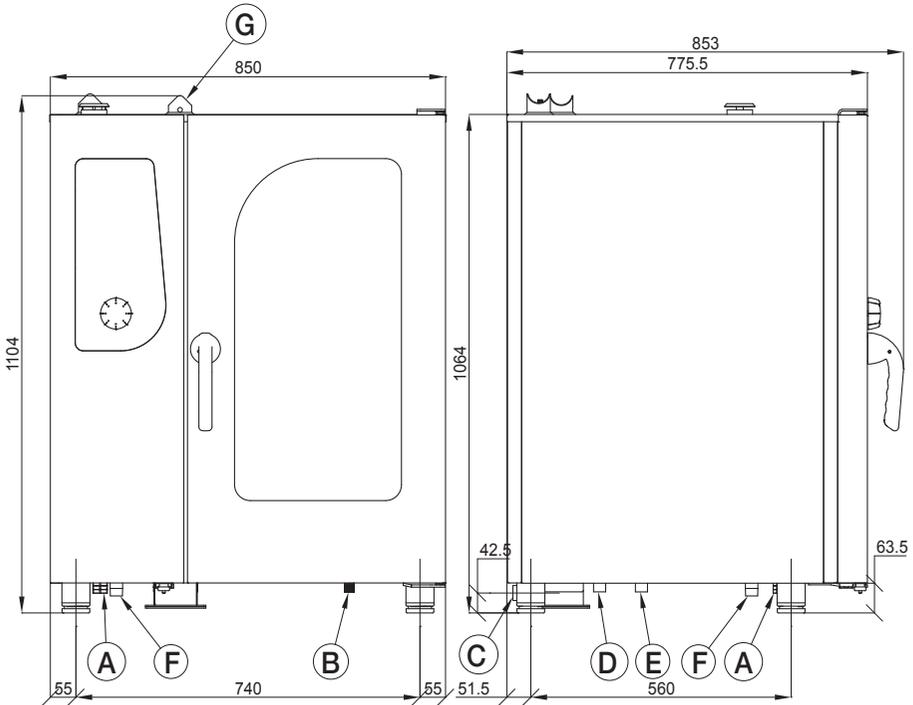
8.3. Mod. SBHE101



- Ⓐ Electric connection
- Ⓑ Sprayhead water inlet (G1/2)
- Ⓒ Drain (tube \varnothing 32)
- Ⓓ Unfiltered water inlet (G3/4)
- Ⓔ Softened water inlet (G3/4)

8. Installation layouts

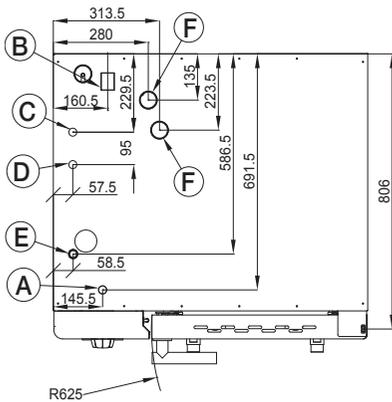
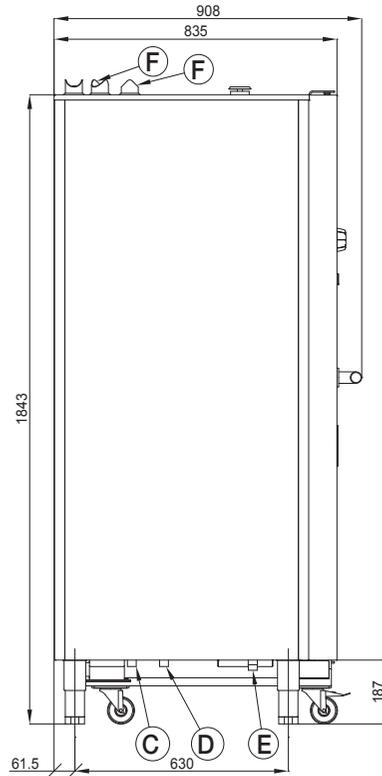
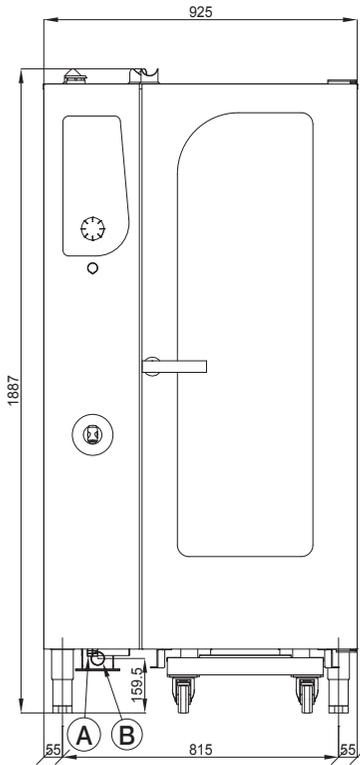
8.4. Mod. SBHG101



- Ⓐ Electric connection
- Ⓑ Sprayhead water inlet (G1/2)
- Ⓒ Drain (tube Ø 32)
- Ⓓ Unfiltered water inlet (G3/4)
- Ⓔ Softened water inlet (G3/4)
- Ⓕ Gas connection (R 3/4)
- Ⓖ Fumes exhaust

8. Installation layouts

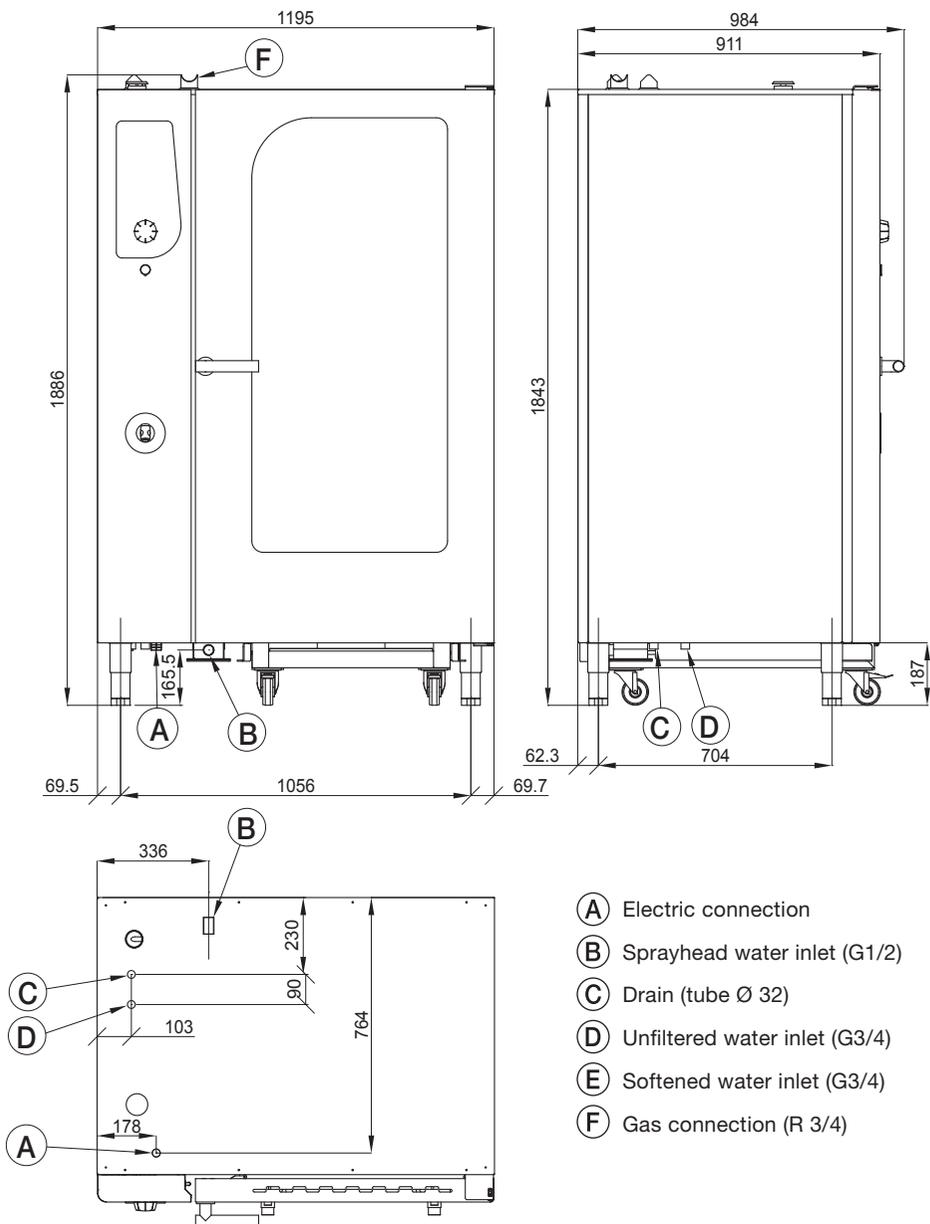
8.6. Mod. SBHG201



- Ⓐ Electric connection
- Ⓑ Sprayhead water inlet (G1/2)
- Ⓒ Drain (tube Ø 32)
- Ⓓ Unfiltered water inlet (G3/4)
- Ⓔ Softened water inlet (G3/4)
- Ⓕ Gas connection (R 3/4)
- Ⓖ Fumes exhaust

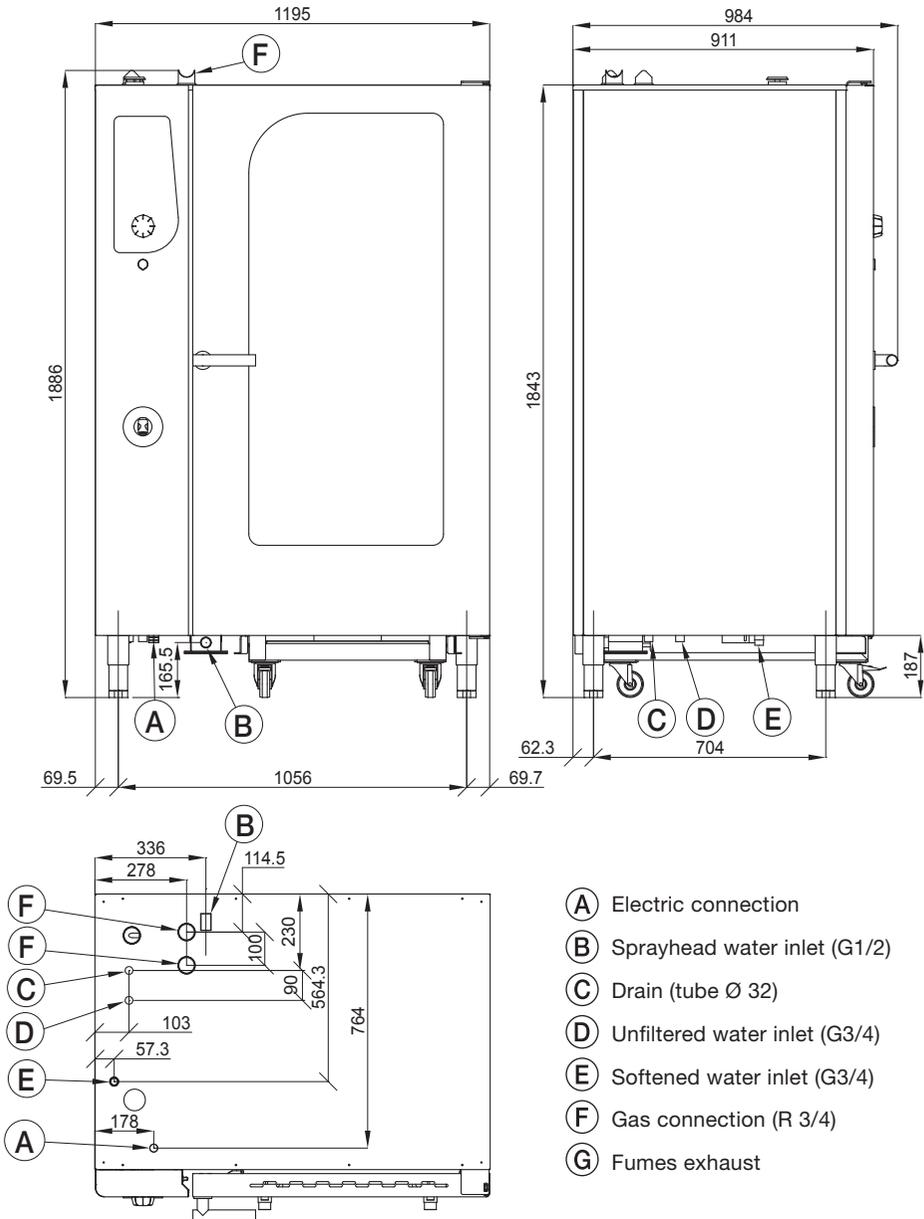
8. Installation layouts

8.7. Mod. SBHE202



8. Installation layouts

8.8. Mod. SBHG202



9. Alarms description

In case of alarm the identifying name of the alarm in progress appears on temperature display and on time display.

The following alarms are managed:

Name	Description	Actions	SOLUTION
Chamber probe	Chamber probe error	Cooking block, automatic restore.	Replace chamber probe.
Core probe	Core probe error	Manual restore.	Replace core probe.
GAS	Gas burner block	Cooking block, manual restore.	Press manual restore. (encoder button)
GAS 2	Gas second burner block.	Cooking block, manual restore.	Press manual restore. (encoder button)
Motor safety	Motor Alarm	Cooking block, automatic re-arm.	If continuous, contact after-sales assistance.
Inv	Motor Inverter Alarm	Cooking block, automatic re-arm.	If continuous, contact after-sales assistance.
Chamber safety	Chamber safety thermal.	Cooking block, manual re-arm.	If continuous, contact after-sales assistance.
PWM	PWM board error (communication timeout or problems on fan speed)	Cooking block.	Contact after-sales assistance.
PWM 2	PWM second board error (communication timeout or problems on fan speed)	Cooking block.	Contact after-sales assistance.
Air Flow	Air capacity on gas burner alarm	Cooking block, manual restore.	Check obstructions to combustion fumes exhaust flue, otherwise contact after-sales assistance.
Air Flow 2	Air capacity on second gas burner alarm	Cooking block, manual restore.	Check obstructions to combustion fumes exhaust flue, otherwise contact after-sales assistance.
Hi temp	Technical compartment temperature too high.	Cooking is blocked, automatic restore.	Check oven's perimeter ventilation (louvers) and the correct functioning of the cooling fans of the components.
No water	No water for the production of steam.	Cooking is blocked, automatic restore.	Check connection to water duct and opening of the shut-off cock.
Com PWM	PWM board communication error	Cooking block.	Remove power and then give back. If continuous, contact after-sales assistance.

9. Alarms description

Name	Description	Actions	SOLUTION
Com PWM2	PWM2 board communication error	Cooking block.	Remove power and then give back. If continuous, contact after-sales assistance.
Communication	Main board communication error	Cooking block.	Remove power and then give back. If continuous, contact after-sales assistance.
No drain	Boiler water did not drain correctly	Cooking block.	Remove power and then give back. If continuous, contact after-sales assistance.
Power fail	Electrical power failure	Cooking block.	Press M for 1 second.
Probe 4	Humidity control probe 4 alarm	Cooking block.	Replace humidity probe 4
Probe 5	Humidity control probe 5 alarm	Cooking block.	Replace humidity probe 5

