



# EC3 COMBIOVEN

INSTALLATION AND OPERATION MANUAL

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#### **INSTALLATION**

#### Introduction

Observe the following instructions to install your EC3 oven properly and take advantage of all its features.

Not observing the installation instructions below may void its warranty and result in harmful consequences.

The instructions below provide for the minimum requirements for correct oven operation.

Ask your local authorities for other restrictions that may apply to your specific location.

The EC3 oven installation requires:

- Flat and leveled surface
- Electricity supply
- Cold water supply
- · Connection to the water drain system

WARNING: All maintenance requiring the removal of any oven cover must be made by certified technicians.

#### Location

The EC3 must be located on a flat and leveled surface, in a place protected from water steam, cooking oil spills, heat, and other gases or liquids, for they can damage the digital electronic control. A clearance of 1/2' (15cm), should be observed from any walls or vertical surfaces to allow the oven ventilation.

# **Electricity**

## **ELETRICAL SPECIFICATIONS**

Make sure that the eletrical diagram of the building is according with the technical specifications

Grounding is required. In case of damage to the equipment or third parties, the consumer will be responsible if he did not comply with the technical setup recommendations.

Use an exclusive circuit breaker for the oven, positioned at a maximum distance of 60" and to the right of the equipment.

It is recommended to set a connector for the power cable to facilitate the product's displacement.

Model	Voltage (V)	Phases	Frequency (Hz)	Power (kW)	Circuit (A)	Consumption (kWh)	Cable (AWG)	Socket (NEMA)
EC3	208/240	1	60/50Hz	6,3	30A	4,4	3x10	6-30

WARNING: Not grounding the oven properly may cause human damage and automatically voids the oven warranty. Consult with a certified technician to prepare for oven installation.

#### Water

A cold water outlet of 3/4" thread, male, must be provided at no more than 5' (1.5 m) from the water valve on the right side of the oven. Use the hose provided with the equipment.

WARNING: Using hot water to feed the oven may damage oven internal tubing and automatically voids the oven warranty.

### WATER SUPPLY

3/4" NPT or Garden Hose thread. Hand-tighten do not use wrench.

Water filter to decrease the hardness is required, we recommend 3M filter. Good quality water feed is the responsibility of the owner. Water quality must be within the following general guidelines. Not meeting the water quality requirements will void the original equipment warranty.

TDS......50-125 ppm Total Alkalinity...50-100 ppm pH Factor...7.0-8.5 Free Chlorine.....<0.1 ppm

Silica......< 13 ppm Hardness.....50-100 ppm (3<6 gpg)

Chloride.... < 25 ppm Water Pressure... 03-60 psi

#### WATER DRAIN

3/4" drain hose. Maximum temperature 175°F (80°C).

Outlet of the equipment should be discharged in a thin or grid connected with sewage system.

#### **Drainage**

A 3/4" hose and clamp are provided with the oven for drainage purposes. The hose must be connected with the clamp to the oven bottle trap outlet, located at the lower back of the oven. Through this hose, excess water and food fat will be drained.

Connect the free end of the hose to the building drain system observing the following instructions:

- The free end of the hose must be connected to a drainage system at a lower level than the end connected to the oven siphon to allow for gravity flow.
- Do not append anything that might restrain hose diameter
- Do not connect the hose directly to the building sewer system
- Make a loose, i.e., not sealed connection. Even though the oven has its own siphon, a sealed connection with the drainage system may cause air inflow from the drain to the inside of the oven. The hose may be simply put over the kitchen floor water grill, if available.
- The temperature of the water coming from the drain hose may reach 160°F (70 °C).

#### **Draft Hood**

Considered the convenience of installing a hood over the equipment to trap heat, steam and grease. In this case the hood should be 16" (40 cm) above the oven top and approximately 12" (30cm) ahead the door to catch the steam and hot air escaped when opening door.



# OPERATION OF COMBINED OVEN EC3

#### **CONTROL PANEL**

Keys and Displays



**Upper Display (blue)** – Displays the chamber temperature, probe temperature or programmed time (decreasing), programmed function, steam level and messages provided with the instructions.



**Lower Display** -Displays the bright LED's indicating the operations and troubleshooting. Has an adjustable vapour level beyond 203°F (95°C).

Key	Function	Allowing Changes & Observations
	cooking Steam	Temperature set at 203° F (98°C) and steam set at 100%
	Combined Steam	Temperature ranging from 86°F (30°C) to 482°F (250°C) and adjustable steam level between 2% and 100% inside of chamber. To adjust the steam level repeatedly press this key
	Hot air	Allows changes to the temperature ranging from 86°F (30°C) to 482°F (250°C)
	Steamer	Plain steam, with no forced convection. Allows changes to the temperature ranging from 86°F (30°C) to 212°F (100°C)
	Generation	Allows for food regeneration. Temperature can be adjusted from 194°F (90°C) to 266°F (130°C). The steam level is also adjustable by repeatedly pressing the key
PRG	Recipes	Press this key to program available recipes. A total of 16 recipes with 8 steps each may be saved
	Cleaning	Automatic cleaning. To start this function press and
•	Grill	Activates the resistance installed in the upper part of the oven chamber
	Play/Pause	Starts or stops a particular function. Also, used to start a recipe and the cleaning process
rc c	Temperature	Displays the actual temperature inside the chamber
	Internal Probe	Determines that the control of the function be made through the internal temperature of the food
(9)	Time	Determines that the control of the function be made through the cooking time
	Increase/ Decrease	It allows to change time, chamber temperature or internal temperature, according to the context
	Reverse	Allows to return to the first screen

# Upper Display messages and actions required

Upper display	Meaning
Lack of water	Oven requires water. Check the water supply.
High temperature	Do not clean oven at this time. Oven considered extremely hot
Spray the oven cleaner	Do not clean oven at this time. Oven considered extremely hot
Steaming	A message with a countdown in seconds when the cleaning process has been activated.
Wait, water	A message with a countdown in seconds when the cleaning process has been activated.
End the process with the manual hand shower	Use the hand shower to rinse the oven.
Pause in the operation	Toggle switch pauses the ongoing operation, or restarts it.
The door is open	Operation is paused. Close the door to resume.



#### STARTING THE FUNCTIONS

#### HOT AIR (BAKING):

86°F (30°C) to 482°F (250°C) (dry). This function is used for pastries, all types of breads and to golden brown food in general. Generally, when cooking meat, this function is used at the end of the process. The message "HOT AIR" will be shown in the upper display and the LED will be lit.

#### **BROILING. GRILLING AND FRYING:**

Press the key



and adjust the temperature to 392°F (200°C) or above.

#### STEAM COOKING:

Temperature at 208°F (98°C) with 100% of steam. In this function, the steam level, as well as, the chamber temperature have already been set and can not be changed. In general, it is used to cook food that otherwise would be made in a pan with boiling water. It is used for vegetables, with perforated or expanded mesh GN pans, rice, and stir-fried food. The upper display will show the message "STEAM" and the LED in the lower display will be lit.

#### **COMBINED STEAM:**



86°F (30°C) to 482°F (250°C) with a steam level ranging from 20% to 100%.

In order to set the steam level, press again the key



. The upper display will show the message

"COMBISTEAM» and the LEDs



will be lit.

- Steam baking: from 266°F (130°C) to 482°F (250°C) with steam. The suggested level of steam is above 50%:

- Cooking delicate food: up to 194°F (90°C). Used for cooking delicate vegetables, e.g. broccoli, cauli flower, or to cook "bain-marie" foods, as condensed milk flans that can be made in appropriate plastic cups dispensing the water-filled pan normally used.

-Cooking "tough" food: 230°F (110°C) with the steam level already set. Used for cooking chickpeas, broad bean.



- Thawing: at 140°F (60°C) with the level of steam already set;

#### REGENTATION:

. The temperature can be set from 194°F (90°C) to 266°F (130°C) and the steam may be adjusted from 20% to 100% using the same key. In general, steam is set to 100%. In case of dry food, use the function "hot air" (0% of humidity). The end of the function can be set by time, which is used for food inside containers, or by the internal probe temperature placed inside food, or containers. The upper display will show the message "REGENERATION" and the LEDs in the lower display will be lit.

#### STEAMER FUNCTION

Press .This function can also be called 'plain steam' or simply 'steaming', since there is no forced convection of air inside the chamber - the turbine will be turned off. The chamber temperature can be adjusted from 86°F (30°C) to 212°F (100°C) and it is controlled by the boiler. The upper display will show the message "STEAMER" and the LED in the lower display will be turned on. This function is used for cooking delicate vegetables; greens, cauli-flower, broccoli, for bain-marie and for keeping the temperature of heated moist food - At temperature of 167°F (75°C).

#### **GRILL**

Press Starts the function that allows the superficial browning process of any type of food (BROILING), with a time limitof 10 minutes\_It works with the door opened or closed. When the door is closed the system activates to achieve a higher potency. The temperature inside and the chamber can be adjusted up to 482°F (250°C). When the door is opened, only the resistance in the upper part switches on. Better results will be achieved if the food is placed near the broiler.

Procedure to start the Grill function:



Door opened or closed

Open the door and keep it opened so that the oven will work as a "salamander broiler", for up to 10 minutes. Place the food close to the resistance (upper part). When the door is closed the turbine starts working. Procedure to start the broiling function and to heat the food. Close the door to start the process.









Place the food close to the oven's resistance (upper part) and close the door. The turbine will be activated. The temperature inside the chamber can be adjusted up to 482°F (250°C).

#### PROGRAMMING THE TEMPERATURE INSIDE THE OVEN:

The upper display will show the programmed temperature inside the chamber. To verify the present

temperature, press the



key once and the actual present temperature will be shown for a few

seconds. To change the temperature inside the chamber, select one of these functions:



















and then select





to adjust the temperature.

In the function changed.



«steam cooking», the temperature is set at 208°F (98°C) and can not be

#### PROGRAMMING THE TIME FOR A FUNCTION:

#### Select a function:

















and then select



<sup>/</sup> to adjust the time.





When the timer is set at "000", the oven will work non-stop in the function "Grill".

#### PROGRAMMING THE PROBE TEMPERATURE:

Position the food into the oven, place the thermometer into the thicker part of the cooking item, then close the oven door. The upper display will show the selected function, the chamber temperature and probe temperature. In order to know the present temperature inside the food press the key























and then select





to adjust the temperature.

## PROBETEMPERATURES: INNER FINISHING

FOOD		T° PI	ROBE	FOOD		T° PF	ROBE
Beef tenderloin	Rare	140°F	60°C	Veal leg	Well-done	172°F	78°C
Lamb shoulder	Medium	151°F	66°C	Stir-Fry Fish	Medium	167°F	75°C
Rabbit	Medium	158°F	70°C	Turkey	Well-done	190°F	88°C
Stewed Food	Well-done	203°F	95°C	Salmon - filet	Rare	149°F	65°C
Chicken - thigh	Well-done	194°F	90°C	Sausage	Medium	162°F	72°C
Chicken - chest	Well-done	185°F	85°C	Pork - knee	Medium	203°F	95°C
Whole chicken	Well-done	190°F	88°C	Pork - boneless pork loin	Medium	176°F	80°C
Roast beef - tenderloin	Rare	140°F	60°C	Pork - ribs	Rare	167°F	75°C
Roast beef	Rare	140°F	60°C	Broiled Food - pie dish	Medium	140°F	60°C
Bread		208°F	98°C				
Veal shoulder	Well-done	176°F	80°C				

#### **SETTING THE STEAM LEVEL:**

#### Select a function







Each time the key is pressed, the steam level is increased by 20%. The oven shows 5 levels of steam.

In the function level to 100%.



'steam cooking', the temperature is set to 208°F (98°C) as well as, the steam

#### **RECIPES**



Up to 16 recipes with 8 independent steps each may be saved in this oven. In each step of the recipe the following parameters can be defined:

- . the amount of steam (0 to 100%, ranging from hot air and combi steam)
- . chamber temperature
- . time of operation, or internal probe temperature, and
- . use of the grill.

#### PROGRAMMING THE RECIPES







to select the recipe to be programmed.





the upper display will show:

Temperature	Time or temp. probe
Function	Steam level

#### Step











If you press this same key again to choose the steam level,











to set the temperature inside the chamber;









to set the time or



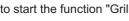






to set the temperature of the internal probe level





to start the function "Grill". The time is limited up to 10 minutes and, when set in only

"Recipes" it will work when the door is closed.







confirm the recipe step. Each confirmed step will be marked with an \*

(asterisk).









and follow the steps mentioned above.

To end recording, press





#### STARTING THE RECIPES





to select the recipe to be made





starts the operation.

#### **RE-EDITING RECIPES**









to select the recipe to be edited.

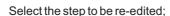
















or



Opens the screen to re-set the step.

Continue the operation following the instructions in "EDITING THE RECIPE".

#### **DELETING RECIPES**

When is set the minimum temperature available inside the chamber, in a certain step of the recipe, that step will be voided and the asterisk disappears. Therefore, to eliminate a recipe you should set to the minimum temperature available for all stages of the recipe...









to select the recipe to be deleted:





Shows the steps of each recipe. The steps will be marked with an asteris (\*).

Shows the steps of each recipe. The steps are marked with an asterisk (\*).





Select the step to be re-edited;





or



Opens the screen to re-set each step;







until the temperature inside the chamber reach the minimum

available.





Confirms the change;





Confirms the entire recipe.

#### BASIC PRINCIPLES FOR OVEN OPERATION

#### Introduction

Always respect the space between the different foods and GN pans

Set the temperature

Temperature lower than that used in conventional ovens

Temperature x thickness x time

Always preheat the oven

Avoid opening and closing the door all frequently

Simultaneous recipes are allowed only when the temperatures and steam level are compatible Choose the appropriate GN pan

- Space: Because there is a forced flow of heat, we have to respect the room between the food and the gastronorms, so that the heat may freely flow among the food items.
- Set temperatures: Always set the temperature (more or less heat) to start the operations inside
  the oven.
- Lower temperatures: Always work with temperatures lower than the ones used in conventional
  ovens
- Temperature x Time x Thickness: Because we are dealing with heat, the pair Time/Temperature will vary according to food thickness and texture. The thicker the food, the lower the temperature to be used and longer the time to perform the function. The temperature in the function "Steam Cooking" is always constant at 208°F (98°C). If we cook a whole potato, the time spent will be longer than if we cut the potato in small squares. The temperature in the function "Baking", ranges from 266°F (130°C) to 482°F (250°C). When baking a whole shoulder weighing 10 kg, the temperature will be lower and the time spent will be longer than if we bake a three-kilo shoulder.
- **Preheating:** It is important to preheat the oven for 5 to 10 minutes for the function and temperature chosen. The temperature inside the oven can be checked with a light touch on the key. It is important to decrease the final time of the respective preparation.
- Avoid opening the oven during operation. This procedure is not forbidden but it increases the time spent to prepare a food, since the oven will keep losing heat each time the door is opened.
- Preparing several foods at the same time is possible, just observe: temperature has to be compatible, as well as the steam level. For example, a meat than be can cooked along with vegetables. At the end of a certain time, the vegetables will be cooked and the meat will still need to be cooked requiring additional time at a higher temperature so that we will be able to achieve golden brown color with or without steam. The opposite procedure, that is, if you cook the vegetables and the meat in a high temperature from 266°F (130°C) to 356°F (180°C), using steam, effectively the result will be roasted meat and baked vegetables.
- Choose the GN pan to be used according to the desired effect.

#### ACCESSORIES / GN PANS

Gastronorm pans, also known as "Gns": Stainless steel kitchen containers specified according to international standard, used to cook food.

- **1.** Use perforated GN pans 1/1 x 2.5": to prepare vegetables(\*), and meat when you do not want to have liquid retained during the operation. If cooking vegetables, the limit for filling up the GN is 1 cm bellow the GN edge.
- **2.** Solid GN Pans  $1/1 \times 2.5$ " deep, are used to stir-fry vegetables, because it keeps the juices and there is no need to stir them, rice, pasta, broiled food, cakes, pies and meat. This type of GN pan is also used as a 'collector' of liquids and fat when placed under the meat to be cooked over perforated GN's or grids. They are also used to display food in heated or cold counter tops.



- 3. Solid 1.1" GN pans are used for meat, pasta, pies (pastries and desserts in general) and fried food.
- 4. The grids are mainly used to prepare roasted meat, grilled food and as support for other metal or refractory containers used in the oven.
- 5. GN pans with a depth higher than 4" (up to 7") are more appropriate to distribute and transport food mainly rice, stews, beans and other type of side order food.
- 6. Waved GN pans are specifically used for French bread and baguettes.
- 7. Expanded Mesh GN pan. Only a little bit of oil is needed to fry any kind of food in this type of GN. It is used to fry vegetables (potato, scarlet eggplant, okra), meat (chicken) and several other food.
- 8. Tower grill. Used to roast a whole chicken. The chicken is placed standing on the grill, and the wings are placed up and behind the chicken's neck.
- 9. Lids 1/1. They fit all types of GN pans.

Observation: The type of GN pan to be used depends on the way you want to have the food prepared.

> For instance, if you have four pieces of boneless pork tenderloins and organize them inside the oven - one boneless pork tenderloin over one grid; the second boneless pork tenderloin in a perforated GN 2.5" deep, the third piece in a solid 1.1" (shallow); and the fourth boneless pork tenderloin in a solid GN 2.5", at the end of a determined period of time and temperature you will have four different dishes as follows:

- Boneless pork tenderloin over a grid: Totally brown (the entire outer surface) showing a low content of fat (the fat melts during the process). In this case, there was no heat flow.
- Boneless pork tenderloin placed in the perforated GN 2.5": Partially golden (mainly in the upper surface) and also showing a low content of fat (also drained during the process) because GN walls provided resistance to the heat flow.
- Boneless pork tenderloin placed in the solid GN 30 mm (shallow): The pork will be almost entirely golden, its lower part, not golden yet, will be surrounded by juices and fat drained during the baking process because of little resistance to the heat flow and liquid retention.
- Boneless pork tenderloin placed in a solid GN 2.5" (average GN): In this case, the meat will be less golden compared to the others and will be partially immersed in juices and fat caused by a lower heat flow.

The same happens when cooking vegetables. When using perforated GN pans the vegetables will be more dry, perfect for a salad. If using solid GN pans, part of the steam condensates in the bottom and the liquid is incorporated in the food seasoning. The structure of the vegetables is kept intact since there is no shock provoked by the boiling water If you want juicier vegetables, all you have to do is to add more water.

#### **GUIDELINE TABLE:**

It is important to notice that the first column of the table shows the product (food) and the second one suggests the type of GN pan to be used. The three columns display the oven programming process: key, temperature and time. The last column shows any observations about the product, regarding the seasoning, oil and so forth. Some food preparation show two or three different lines (for example: stuffed beef rolls), that is, program the first line and the other line afterwards. Therefore, the preparation of that dish will have two or more different steps.

# **General Cooking**

PRODUCT	GN 1/1	Steam	Temp.	Time	Note
Rice	Solid 2.5"	(13)		35min	Wash the rice and put it together with the seasonings in a GN with 1.2 liters of water for each kg of rice
French fries	Expanded mesh		392°F 200°C	15min	Grease the GN pan and spray oil. Use frozen precooked French fries
Rosette Potato	Perforated 2.5" or Solid 1"		392°F 200°C	20min 20min	Grease the GN pan and spray some oil
Brocoli, Cauli-Flower, Green Beans	Perforated 2.5"		194°F 90°C	25min	
Greens	Perforated 2.5"	(Digg)		10min	
Sweet puff pastry	Solid 1"		302°F 150°C	20min	
Savory puff pastry	Solid 1"		356°F 180°C	20min	
Broiled Food			428°F 220°C	10min	Baking seets may be used over the grids
Vegetables	Perforated 2.5"	(DJJ)		25min	
Petit fours in general	Solid 1"		320°F 160°C	15min	
Sweet Dough/ Cakes			302°F 150°C	25min	The thicker the dough, the longer the cooking time
Salt Dough and Pies	Solid 1" or Marinex over the Grids		356°F 180°C	25min	The thinner the dough, the less cooking time
Boiled Eggs	Perforated 2.5"	(D)		10min	
French Bread	Waved Perforad GN		356°F 180°C	15min	
Pizzas (Prebaking)			356°F 180°C	10min	Prebaking Broling
Pizzas			428°F 220°C	6min	Broling
Coconut Pudding	Individual aluminum baking sheets		248°F 120°C	60min	Cover the baking sheets with aluminum foil
Condensed Milk Flan	Tube cake pan over the grid		203°F 95°C	60min	
Condensed Milk Flan	Disposable cups		176°F 80°C	45min	
Bread Pudding	Solid 2.5"		284°F 140°C	40min	
Soufflés	Solid 2.5"		356°F 180°C	25min	
Merengues	Solid 2.5"		212°F 100°C	60min	



# **Beef Cooking**

PRODUCT	GN 1/1	Steam	Temp.	Time	Note
Meatball	Solid 1"		356°F 180°C	15min	Grease the GN pan. The cooking time will vary according to the size of the meatball
Meatloaf	Solid 1"		302°F 150°C	35min	Grease the GN pan
Breaded Steak	Solid 1" or Grid		392°F 200°C	10min	Grease the GN pan and spray some oil over the steaksor mix the oil and flower
Stuffed beef rolls	Solid 1" or Grid		428°F 220°C	15min	Serve them with boiling sauce
Stulled beel rolls	Solid 1 of Grid		248°F 120°C	60min	Serve them with boiling sauce
Grilled Steak	Solid 1" or Grid		482°F 250°C	10min	Add cooked onions or sauce
Stufffed Steak			428°F 220°C	12min	Slice it, spread the boiling sauce and serve it
(up to 2kg)	Solid 1" or Grid		302°F 150°C	60min	Once it, spread the boiling states and serve it
Beef Back Ribs	Solid 1" or Grid		248°F 120°C	90min	Wrap it in aluminum foil or cellophane, cook it at 200°C/90min. Remove the aluminum foil
Deel Dack Ribs	Solid 1 of Grid		180°C	30min	or cellophane and cook for an additional of 30min using the function"hot air", at 356°F
Beef Skewer (Bottom Round)	Solid 1" or Grid		392°F 200°C	15min	
Hamburguer	Grid		410°F 210°C	10min	
Baked Kibbeh	Solid 1"		356°F 180°C	25min	The thinner the kibbeh, the less the cooking time
Baked Kibbeh	Solid 1" or Grid		356°F 180°C	30min	
	John I of Grid		248°F 120°C	40min	
Baked Eye Round (up to 2kg)	Solid 1" or Grid		428°F 220°C	15min	Turn the steak after 8 minutes

# **CHICKEN Cooking**

PRODUCT	GN 1/1	Steam	Temp.	Time	Note
Chicken Double	Solid 1" or Grid		356°F 180°C	30min	
Breast Fillet	Cond 1 of Ond		302°F 150°C	60min	
Baked Thigh/	0.11		356°F 180°C	20min	
Legs	Grid		356°F 180°C	20min	
Chickens thigh filet	Grid		410°F 210°C	20min	
Baked chicken	Solid 1" or Grid		392°F 200°C	15min	Use in the seasoning: Worcestershire sauce, soy sauce, orange juice or any other
(whole)	Solid 1 of Grid		392°F 200°C	45min	juice with sugar content.
Deep Fried Chicken	Solid 1"		410°F 210°C	25min	
Pieces of deep	Grid		248°F 120°C	40min	Precook the chicken before breading it. After deep frying it, grease the GN and spray some
fried chicken	Solid 1" or Grid		392°F 200°C	15min	oil over the Chicken or mix it with the flour
Breaded chicken chest	Grid		392°F 200°C	15min	Grease the GN pan or grid and spray oil over the food
Pieces of chicken for stroganoff	Solid 1" or Grid		428°F 220°C	20min	Stir after 10 Min



# **PORK Cooking**

PRODUCT	GN 1/1	Steam	Temp.	Time	Note
Pork skin	Perforated 2.5" or expanded		212°F 100°C	15min	
T GIR GRAIT	mesh GN		356°F 180°C	30min	
Boneless Shouder	Solid 1" or		302°F 150°C	60min	It can be prepared using the internal
(up 2 Kg)	Grid		302°F 150°C	30min	probe and is set at 176°F.
Grilled Back Ribs	Grid		356°F 180°C	30min	
Pork loin chop	Grid		392°F 200°C	20min	Grease the grids
Toscana sausage	Grid		356°F 180°C	25min	
Toscana Baked Boneless	Grid		338°F 170°C	25min	
Por Tenderloin	Gila		338°F 170°C	25min	
Marinated Baked Bone- less Pork Tenderloin	Solid 1"		356°F 180°C	50min	Turn in order to golden brown the upper part
Grilled Pork Steaks	Solid 1" or Grid		410°F 210°C	12min	

# **FISH Cooking**

PRODUCT	GN 1/1	Steam	Temp.	Time	Note
Baked fish	Solid 1" or		356°F 180°C	25min	Grease grids or GN pans
(up to two-kilo fish)	Grid		356°F 180°C	25min	Grease grids or Giv paris
Fish stew (Pieces)	Solid 2,5"		302°F 150°C	30min	Remove the water drained when cooking the fish and add the sauce
Fish filets in corn flower	Solid 1"		428°F 220°C	12min	
Breaded fish	Solid 1"		392°F 200°C	15min	Grease GN pans and spray the oil over the food or stir the oil and the flour
Grilled fish	Solid 1"		428°F 220°C	8min	Grease GN pans and spray the oil over the food or stir the oil and the flour

#### **EXAMPLES OF RECIPES**

#### **ROASTED CHICKEN**

**01** - Preheat the oven, by turning it on and pressing about 10 minutes, prior to baking the chicken.



and adjusting the temperature to 392°F (220°C) for

02 - Place the chicken in the roasting grids (6 chickens in each grid) as if they were "sitting" with the two wings (as if

they were hands) behind the back of the neck and tip of the thigh of each bird placed close to one another.

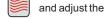
**03** - In the last grid, place a solid GN 1.3" solid (solid stainless steel sheet 1.3" high), to collect the fat and juices drained from the chicken during the baking process.

04 - Press



and choose 50% of steam.

- 05 Adjust the Temperature to 428°F (220°C)
- 06 Adjust the Time for 15 minutes
- **07 -** When the oven starts beeping, the combi steam period is ended. Press the key "Hot Air" time for an additional 45 minutes. Keep the temperature at 392°F (200°C).



- 08 After the programmed time, carefully open the oven. Caution; never expose your face first to the steam.
- 09 Wearing thermal gloves, remove the grids from the oven and place them over or inside a clean container.
- 10 With the aid of plastic gloves or the own chicken bag, remove the grids using both hands in a shape of a shell, touching the chicken thighs with an upward vertical movement. The chicken may be "dressed" with its own bag while it is still in the grid, as if it were in a hood and using both hands, touching the chicken thighs, remove them out of the grid.
- 11 Wrap it up and store at a minimum temperature of 140°F (60°C).
- 12 After finishing each baking process, remove and empty the GN pans used to collect the drained fat. In order to get more golden brown chicken or other white meat, use small amounts of orange juice, Worcestershire sauce, soy sauce, beer or sugar (3 g/kg) in the seasoning.

#### PORK SHOULDER / FRESH HAM

Because of its size and variable weight and diameter, care must be taken to ensure its core is sufficiently cooked. Therefore, it is important to use a temperature lower than the temperature used to bake a chicken.

- 01. Preheat the oven by turning it on and adjusting the temperature to 302°F (150°C) for about 5 minutes.
- **02.** Place it over a simple grid or in a solid GN 1.1" (Shallow stainless steel 1.1" deep broiler) or in a conventional baking sheet, placing this over a grid.
- 03. Adjust the temperature to 302°F (150°C).
- 04. Adjust the time for 90 minutes.

05. Press



and adjust for more than 50% of steam.

06. After 90 minutes the oven will beep. Press



**07**. Keep the temperature at 302°F (150°C). The remaining time will vary according to the size of meat. The time to finish this preparation will range from 30 to 60 minutes. An alternate method is to use the internal probe. Press the key "Combined Steam" activating more than 50% of steam and set the chamber temperature to 302°F (150°C). Insert the probe and program it to set the alarm off when the inside part of the pork shoulder reaches 176°F (80°C). If the pork shoulder weighs more than 6 kg (13,2lb), use lower chamber temperatures.



#### BEEF RIBS, EYE OF ROUND, HUMP-HARD MEAT

To prepare hard meat, more time and attention will be required by the preparer. After placing the meat over the grids or shallow GNs, there are two basic ways of performing this:

**First:** The meat should be wrapped in aluminum foil or cellophane and placed in the oven with a high temperature from 392°F (200°C) to 428°F (220°C) for 90 minutes, with no steam. After 90 minutes, remove the aluminum foil or cellophane out, lower the temperature and allow it be processed to a final golden brown which will take approximately 30 minutes.

**Second:** There is no need to wrap the meat in cellophane paper. Adjust the oven to 248°F (120°C) with 100% of steam and set the timer for 120 minutes. After the meat is tender, increase the oven temperature to 356°F (180°C), without steam, to allow the meat to be processed to a golden brown color. If necessary, add the sauce before serving it. The probe sensor can be used and adjusted to 198°F (92°C).

#### **CLEANING:**

#### Introduction

- 01 Cool down the oven
- 02 spray the oven cleaner over the inner surface
- 03 Shut the door and press





- 04 Wait some minutes
- 05 If necessary remove the dirt with a non-metallic sponge
- 06 Rinse it.

Do not use cold water on the hot glass.

Do not use steel sponges, sharp objects or abrasive powders.

At the external surface: Do not use water. Follow the procedure: wet cloth .> cloth with detergent> wet cloth > dry cloth .

If the oven is going to be off for more than 6 hours, keep the door cracked open.

It is extremely important to use the Personal Protective Equipment such as:

wide vision Glasses with polypropylene lens.

**PVC** gloves protecting half of the forearm,

apron and mask to protect the nose and mouth during any kind of operation.

Use an oven cleaner, scale remover or fat remover – It is important to notice that products made of ammonia or sodium hydroxide. Conventional oven cleaner, if used, should be diluted in a ratio of 4 parts of water for 1 part of the oven cleaner.

Never use oven cleaner containing dyes or acid additives.

Clean the oven daily, even when using it for steam cooking. Fat residue may provoke fire inside the oven.

#### **DAILY PROCEDURE**

- Cool down the oven until it reaches a temperature below 158°F (70°C), using the hand shower.
- · Take all the utensils from inside the oven. Only grids can be cleaned during this process
- Spray the oven cleaner throughout the inner surface of the oven.
- The message "put the oven cleaner" will be on. Open the door and spray the oven cleaner inside the chamber.
- Press this key to start cleaning. The message "Steaming" will be displayed and the 780 second countdown will start
- Then, the message "rinse" will be displayed. In the end, you will see the message "Finish with hand shower".
- Use the hand shower to completely remove the oven cleaner, since any kind of residue may contaminate the food.
- If necessary, use a sponge to remove all dirt residue remaining inside the oven. Never use abrasive powders, steelsponge, knife, spatulas or any other sharp object. Try to keep the inner chamber as new (reflexive).
- At least once a week, take the oven rack and internal protection off (in front of the resistances) for a deep cleaning.
- Never use water in the external surface of the oven or over the hot glass since this can damage the control
  panel and the electronic devices.
- The external surface, control panel and the glass may be cleaned with a wet cloth, detergent and dry cloth.

  Observe the sequence: wet cloth; cloth with a detergent; wet cloth; dry cloth.

IN CASE THE OVEN IS OFF FOR 6 HOURS OR MORE, KEEP THE DOOR CRACKED OPEN.



#### SAFETY INSTRUCTIONS

**PPE:** The operator of the oven must wear Personal Protective Equipment (PPE). During operation, wear protective thermal gloves and apron. When performing the cleaning process, besides the apron, wear mask, protective glasses and latex gloves.









Protective Gloves

Protective glasses

Protective mask

Apron

#### **HANDLING**

When opening the oven's door, stay behind it and open it in two stages.



**1.**Open the door slightly and wait until the heat and steam have escaped.



**2.**Open the door entirely once the steam has escaped.

Make sure there is no cleaning product residue before starting to cook.

Do not use sharp, metal or other type of objects to press the keys in the control panel. Only use your fingers to do so.

Never use products containing acid when cleaning the oven for they will damage the stainless steel surface, resulting in corrosion of the metal.

PROBLEM	POSSIBLE CAUSE AND SOLUTION
Oven don't heat	Phase failure: verify if there is power.
Oven delays to heat (or retake temperature)	<ul><li>Phase failure: verify if there is power.</li><li>Door open: close the door.</li><li>Oven dirty: clean it</li></ul>
Oven makes abnormal noise on chamber	<ul> <li>Motor fan touching internal parts: place parts properly</li> <li>Phase failure: verify if there is power.</li> </ul>
Motor does not spin	<ul> <li>Motor fan touching internal parts: after cool down the oven, place parts properly.</li> <li>Phase failure: verify if there is power.</li> </ul>
Oven does not work	<ul><li>Phase failure: verify if there is power.</li><li>Door open: close the door.</li></ul>
Circuit Breaker turning off	Circuit breaker off: turn it on     Improper installation of electrical circuit.
Uneven cooking	<ul> <li>Door open: close the door.</li> <li>Temperature too high (low the temperature).</li> <li>Oven unleveled: level it</li> <li>Oven dirty: clean it.</li> <li>Inner parts out of place: place parts properly .</li> <li>Overload: Reduce the load.</li> </ul>
Oven giving electric shock	Inadequate grounding : call a technician.
Oven burning food	Too high: Temperature Too long Backing time: adjust the time.
Delay on cooking	<ul><li>Temperature too low: high the temperature.</li><li>Oven dirty:clean it.</li><li>Overload: low the load.</li></ul>
It gives smell to the food	Oven dirty: clean the oven.
Drying up food	Cooking time too long (low the time and increase temperature)
No cooking inside the food	Temperature too high: low the temperature     Cooking time too short: adjust the time.
Oven heating externally	Poor ventilation environment



NOTES:		




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