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Mod: FCT/G25

Production code: IBERICA/CG-80

TECHNICAL INSTALLATION INSTRUCTIONS USE AND MAINTENANCE INSTRUCTIONS

**GAS FRYER / CHURRERA
MODEL: FCT/G25**

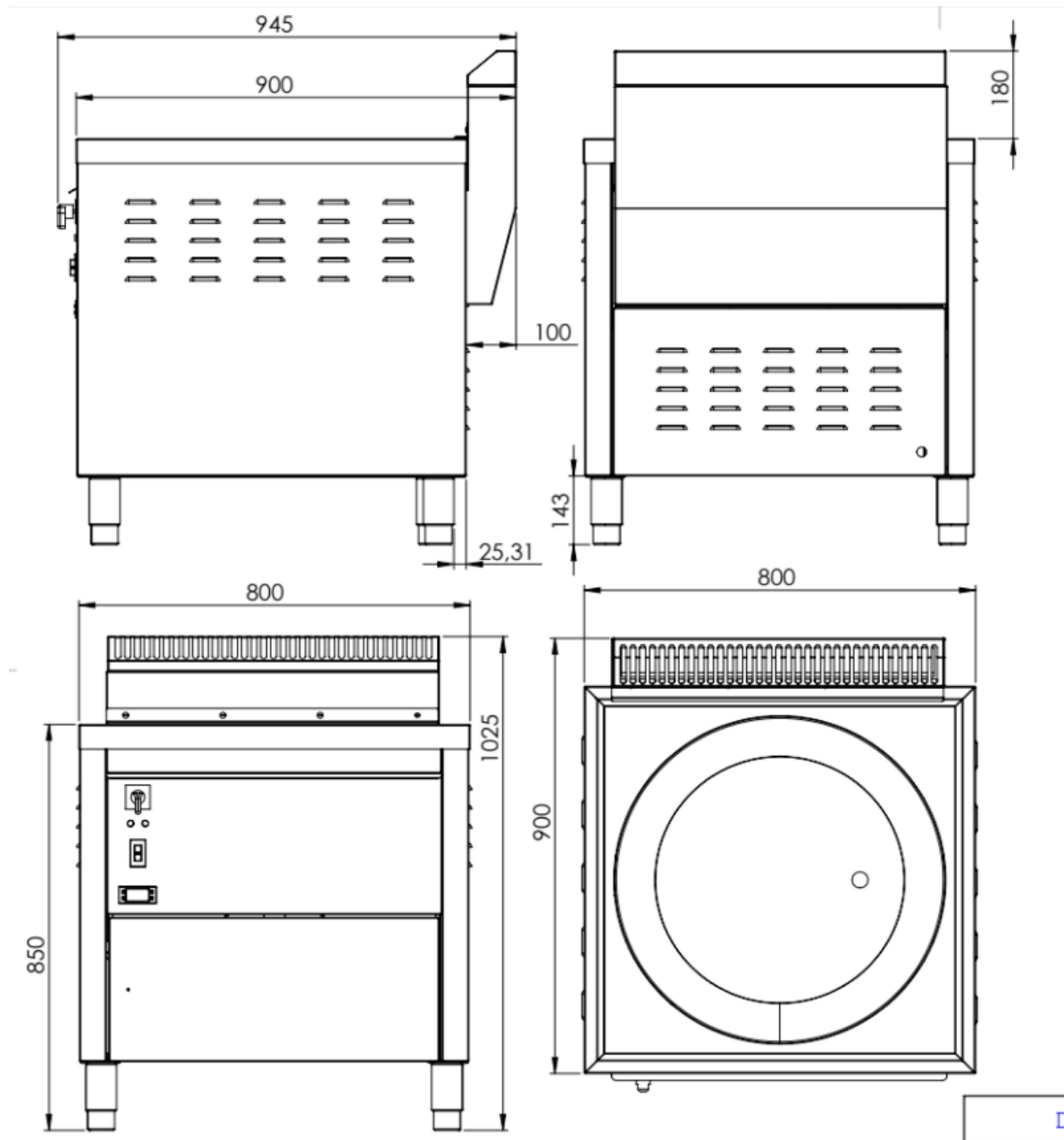


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1. TECHNICAL DATA

1.1. MAIN DIMENSIONS MODEL CG-80



2. TECHNICAL INFORMATION

2.1. Specifications chart

MODEL		CG-80
External Dimensions	Width (mm)	800
	Depth (mm)	900
	Height (mm)	850
Nominal Caloric Consumption (Kw.)		24.5
Caloric Consumption burner (Kw)		25
Gas Connection according to EN 10226-1,2		½"
Type		A ₃
Nominal level fry pot (l)		22
Maximum frying capacity (Kg)		5

2.2. Injectors – Gas Consumption chart

MODEL	CG-80 Diameter 1/100 mm
Main burner – Liquid Gas - LPG G30/G31 28-30/37 mbar	250
Main burner – Liquid Gas - LPG G31 30 mbar	265
Main burner – Liquid Gas - LPG G30 50 mbar	220
Main burner – Liquid Gas - LPG G31 50 mbar	230
Main burner – Methane Gas G20 20mbar	415
Main burner – Methane Gas G25 25mbar	415
GAS CONSUMPTION (1)	CG-80
G30 (28-30 mbar)	1.990 g/h
G31 (37 mbar)	1.960 g/h
G30 (50 mbar)	2.680 g/h
G31(50 mbar)	2.640 g/h
G20 (20 mbar)	2.53 Nm ³ /h
G25 (25 mbar)	2.96 Nm ³ /h

(1): Consumption based on Hi

2.3. Categories, gases and pressures.

COUNTRY	CATEGORIES	GAS	SUPPLY PRESSURE
AT, CH, CZ, DK, EE, ES, FI, GB, GR, IE, IT, LT, LV, NO, PT, RO, SE, SI, SK	I2H	G20	20 mbar
DE, LU, PL, RO	I2E		
BE, FR	I2E+	G20	20 (25) mbar
NL	I2L	G25	25 mbar
CY, DK, EE, FR, HU, IT, LT, NL, RO, SE, SI	I3B/P	G30, G31	30 mbar
AT, CH, CY, CZ, DE, FR	I3B/P	G30, G31	50 mbar
BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, PT, SI	I3+	G30, G31	28-30, 37 mbar
CY, DK, EE, FI, IT, LT, RO, SE, SI, SK	II2H3B/P	G20 / G30, G31	20 mbar / 30 mbar
AT, CH, CY, CZ, SK	II2H3B/P	G20 / G30, G31	20 mbar / 50 mbar
CH, CY, CZ, ES, GB, GR, IE, IT, LT, PT, SI, SK	II2H3+	G20 / G30, G31	20 mbar / 28-30, 37 mbar
NL, RO	II2L3B/P	G25 / G30, G31	25 mbar / 30 mbar
DE, RO	II2E3B/P	G20 / G30, G31	20 mbar / 50 mbar
FR	II2E+3B/P	G20 / G30, G31	20 (25) mbar / 30, 50 mbar
BE, FR	II2E+3+	G20 / G30, G31	20 (25) mbar / 28-30, 37 mbar

3. INSTALLATION

The fryer must be installed either by the manufacturer's qualified and experienced technicians, by an authorized installer or by the gas supplying company.

Before installing and turning on the fryer, read the instructions in this manual thoroughly and in particular the safety standards.

WARNING: All parts that are protected by the manufacturer may not be manipulated neither by the installer nor the user.

This fryer is designed for professional use and must be used by trained staff. Before connecting the unit, please verify:

- a. that all removable parts are in the correct position. If some part moved during transport, first readjust it.
- b. that the fryer is leveled correctly. If necessary, adjust leg height.

3.1. PLACE OF INSTALLATION

Install this fryer in a location where adequate combustion and ventilation air are available. Follow the current local norms. The adequate air flow input to the fryer system must be 2 m³ per Kcal/hour installed.

Install this fryer individually or together with other NT Gas devices.

A minimum of 150 mm should be maintained between the fryer and any combustible material.

WARNING: If the fryer is not installed in a draughty place, unacceptable concentrations of substances harmful to health can occur or even cause death.

3.2. ELIMINATION OF COMBUSTION RESIDUES

Type A3: Combustion residues of this one fry pot fryer are eliminated directly through the rectangular outlet located on top of the fryer.

The fryer should not necessarily be connected to an exhaust duct outward. Install the fryer preferably under a ventilation hood that conducts combustion products outside the building.

DO NOT obstruct the outlet of combustion residues and flow of ventilation air.

This device needs an AIRFLOW of 395m³/h for a correct combustion and elimination of combustion residues.

3.3. GAS CONNECTION

Before connecting the fryer, consult your gas supplier and check whether your gas network supplies the necessary pressure and flow in order to ensure a proper operation of the fryer.

This device is equipped with a gas connection threaded ½" in accordance with norm EN 10226. A seal can be placed on the end if necessary.

The plate next to the gas connection indicates the gas type for which this fryer is configured.

Check the gas pressure at the inlet. Since pressure loss by the gas network is possible, it is advisable to install a pressure regulator or stabilizer to prevent the inlet pressure to the fryer to exceed the pressure indicated on the plate (see Chapter 2 – Technical Information).

This gas appliance must be installed by authorized personnel. Both rigid and flexible non-metallic pipes may be used according to norm EN 53539 or flexible metallic pipes according to norm EN 14800. Pipes should never exceed the length of 1,5 mt. If rigid pipes are used, then a stopcock must be installed as close as possible to the fryer's connection.

Connect the fryer to the gas network according to the current regulations. Once the installation is completed, check with soapy water or a manometer that the pipes are leak proof.

Never use a flame to verify if there are leaks.

In case you wish to connect the fryer to a gas bottle, make sure the bottle is always in vertical position and it complies with following characteristics:

TYPE	GAS	CAPACITY
Domestic	BUTANE	12,5 KG
	PROPANE	11,0 KG
Industrial	PROPANE	35,0 KG

NOTE: install a gas pressure regulator on gas bottles in order to ensure an adequate pressure.

3.4. START-UP

❖ Nominal thermal power control

Thermal power of the device must be verified by an authorized technician according to the indications described in this manual after every maintenance operation, in case of new installation or if the device is converted to a type of gas different than that for which it was configured originally.

Nominal thermal powers for each model are indicated on the chart of Chapter 2. - Technical Information).

❖ Inlet pressure control

Check whether the device is configured for the desired type of gas. Revise the information mentioned on the plate of the device as well as charts of Chapter 2 of this manual. In case the gas type is different, adapt the fryer to the new gas type as shown in chapter 2.3.

Use a U-shaped manometer with a resolution of minimum 0,1 mbar to measure the gas pressure of the fryer at the gas inlet. If the gas pressure is not between the values indicated on chart 2.3, do not set the unit into operation and inform your gas supplier hereof.

❖ Operation control

Start up the fryer following these instructions:

- a. Verify that the gas circuit is gastight.
- b. Verify the working of the drain valve.
- c. Verify the ignition and quality of the flame.

4. TECHNICAL MAINTENANCE

Maintenance must be performed by a qualified and authorized technician or by the gas supplying company.

It is recommended to carry out semi-annual general controls of the fryer (and draw up a maintenance contract). Verify:

- a. that the gas circuit is gastight. Replace seals if necessary.
- b. the working of the ignition system.
- c. the working of the regulation thermostat and the safety thermostat.
- d. the expiry date of the flexible pipe. Replace it if necessary.

5. REPLACEMENT OF COMPONENTS

Only an authorized installer or a qualified technician of the gas company may replace spare parts.

A general review is recommended to be done at least two times a year.

The front panel gives access to the controls of the fryer.

❖ Spark control and solenoid valve

To replace the spark control and solenoid valve, loosen all connexions and unscrew all nuts of the solenoid valve.

Insert the correct seal on the valve and tighten all other connections so as to avoid gas escapes. Proceed as follows:

- a. Unscrew and remove the protective stainless steel front panel.
- b. Unscrew the nut of the inlet and outlet gas pipe.
- c. Unplug the connections.
- d. Install the new spark control or solenoid valve and adjust.
- e. Put the connections into place again as they were.
- f. Make sure the unit is perfectly gastight before operating it again.

❖ Engine

- a. Remove the front panel of the fryer.
- b. Remove the electrical connection.
- c. Remove the gas connection.
- d. Unscrew the burner unit and take it out.
- e. Replace the engine.
- f. Install the connections again.

❖ Pressure switch

- a. Remove the front panel of the fryer.
- b. Unscrew the nut of the inlet and outlet gas pipe.
- c. Remove the connection.
- d. Remove the silicone pipe.
- e. Unscrew the pressure switch.
- f. Replace the pressure switch.
- g. Install the components and pipe again.

REMARK: Make sure the pressure switch has a value of “60”.

❖ Main burner

- a. Remove the front panel of the fryer.
- b. Remove the electric connection of the motor.
- c. Unscrew gas connection.
- d. Unscrew and remove the burner in its whole.
- e. Unscrew and remove the electrode.
- f. Replace the burner.
- g. Install connections again.

❖ Electronic regulation thermostat

VERY IMPORTANT: NEVER MANIPULATE THE ELECTRONIC THERMOSTAT. THE THERMOSTAT HAS BEEN CONFIGURED AT THE FACTORY AND IS PROTECTED WITH A SECURITY CODE.

- a. Remove the clamps that fasten the thermostat to the front.
- b. Remove the wires from the thermostat.
- c. Install the new thermostat in the same place.

❖ Electronic regulation thermostat sensor

Before starting with this operation, drain the oil from the fry pot at room temperature and subsequently carry out following steps:

- a. Unscrew the sensor and remove it from the fry pot.
- b. Remove the wire's connection of the sensor and thermostat.
- c. Install the new sensor in its place. Pay attention to the sensor's polarity.

❖ Safety thermostat

Before starting with this operation, drain the oil from the fry pot at room temperature and subsequently carry out following steps:

- a. Unscrew the nut of the safety thermostat sensor on the inside and remove.
- b. Remove the protective stainless steel cover by unscrewing the screws.
- c. Loosen the nut of the inlet and outlet gas pipe.
- d. Unplug the thermostat connections.
- e. Install the new safety thermostat.
- g. Make sure the unit is perfectly gastight before operating it again.

6. GAS CONVERSION

The adaptation of the fryer to another type of gas must always be carried out by qualified personnel or by a technician of the gas supplier.

Always use original manufacturer's parts for gas conversions and repairs.

6.1. REPLACEMENT OF THE MAIN BURNER INJECTOR (Photo 1)

Follow these steps to replace the main burner injector:

- a. Make sure the device is correctly disconnected.
- b. Unscrew the nut of the gas inlet connected to the elbow going inside the burner (A).
- c. Take out the elbow (B) and the coupling with the injector.
- d. Unscrew and replace the injector (C) according to injector chart 2.2. Injector sizes on this chart are indicated in hundredth of millimeter.
- e. Screw the elbow and connect the gas inlet again.



Photo 1

Once conversion is done, **you must REPLACE the label with information on the gas type** by the new label. This label is supplied together with the injectors.

7. PROBLEMS AND SOLUTIONS

During normal operation of the fryer, problems can arise. These problems, as well as the possible causes and solutions are listed below.

PROBLEM	POSSIBLE CAUSE	WHAT SHOULD THE USER DO.	WHAT SHOULD THE AUTHORISED STAFF DO
Gas smell	Leak in gas pipes	Contact a qualified technician.	Check tightness.
Combustion is not correct (yellow or red flame)	Dirty or jammed burner	Contact a qualified technician.	Clean burner.
	Obstructed fan	Contact a qualified technician.	Clean fan
Gas burner doesn't ignite	Pressure drop in duct	Contact the gas company.	Verify tightness.
	Safety thermostat activated	Contact a qualified technician.	Reset thermostat and if it doesn't work, replace safety thermostat
	Pressure switch damaged	Contact a qualified technician.	Replace pressure switch
	Electronic spark control unit damaged	Contact a qualified technician.	Replace spark control
Gas burner extinguishes 15 seconds after ignition	Damaged electric motor for air blow	Contact a qualified technician.	Replace motor
	Damaged pressure switch	Contact a qualified technician.	Replace pressure switch
	Damaged electrovalve	Contact a qualified technician.	Replace electrovalve
	Electronic spark control unit damaged	Contact a qualified technician.	Replace electronic spark control
	Displaced electrode	Contact a qualified technician.	Move electrode until positioned correctly
Red pilot light comes on	Electronic spark control unit damaged	Contact a qualified technician.	Replace electronic spark control
	Damaged electrode	Contact a qualified technician.	Replace electrode
	Lack of gas	Contact the gas company.	

8. USE AND MAINTENANCE

This fryer is designed for professional use and may only be used by qualified and trained personnel.

This is a fryer and may only be used as a fryer. Remove the fried food out of the fryer with a slotted spoon.

Do not use this fryer as a boiler or for other applications.

Fill the fry pot with cooking oil. When using solid fat, always let it melt before you fill the fryer.

The installation of the fryer and its possible conversion to another type of gas may be done only by an authorized technician.

Before using the device, eliminate all industrial protective grease from the fry pot and follow the same cleaning procedures as indicated in Chapter 4 of this manual.

Make sure the basket holder is in the correct position after finishing cleaning the fry pot.

8.1. SAFETY WARNINGS AND STARTING.

Be careful when using this fryer. In case of incorrect use, the CG80 fryer can cause serious injuries or even lead to death. This fryer CG80 may only be operated and maintained by authorized personnel who must read the safety instructions mentioned in this manual carefully before starting and using the fryer or before doing any maintenance operation.

❖ VERY IMPORTANT WARNINGS FOR THE USERS:

1º This device heats oil up to 200º C and is equipped with a safety system that blocks the device. If the oil still overheats, turn off the fryer immediately and notify the technical service.

2º This fryer may only be used for frying with edible oils or fats. Never use other products

3º Be cautious when filling the fryer with hot oil. Avoid hot oil splashes.

4º It is strictly forbidden to use flammable solvents or cleaners containing flammable solvents.

5º When filling the fryer, do not exceed the minimum and maximum levels indicated on the tank. Always respect these levels.

6º Do not introduce wet food or pour water in hot oil or fat. This can cause hot oil splashing and can bring the oil or fat to a boil.

7º Before filling the fry pot with oil, make sure that all air is removed from the vent. To check this, first remove the protection grid.

8º Do not modify or remove the safety systems.

9° Do not cut the safety systems. Do not modify the fryer.

10° Never take the warning signs off of the fryer. Replace the warning signs immediately when they are illegible, damaged or missing.

❖ STARTING

Fill the fry pot with cooking oil upto a level between the minimum and maximum marks indicated on the inside of the fry pot (see Fig. 2). Never exceed the maximum oil level mark. Add oil if the oil level is below the minimum mark. Do not start the fryer without oil.

Nominal capacity of the fry pot = 22 liters.



Fig. 2

❖ Ignition of the main burner.

Proceed as follows:

1. Make sure that all gas and electrical connections are correctly installed.
2. Turn the selector to position 1 to start the electrical and safety system. As soon as the electronic thermostat is activated, select the desired temperature.
3. After effecting previous steps and after filling the fry pot with oil, at least until the minimum mark (and never below) and up to the maximum level, light the burner.
4. Put the selector button into START-UP, position 2, and press the green push-button so that the spark control starts igniting the device.

❖ Temperature setting

Programme the electronic thermostat to 190° C maximum to set the fryer to the desired cooking temperature. Remind that the fryer has an inertia of approximately 10 °C as soon as the programmed temperature is reached.



To reach the desired temperature, regulate the thermostat as follows:

- a) By pressing and releasing button "SET", it is possible to access the menu "State of the machine". The menu contains information about the values of the two intervention points. After visualizing information 'SP1', press key "SET" to visualize the value of the intervention point.



- b) The value of the intervention point appears on the display. Press buttons "UP" and "DOWN" within 15 seconds to modify the value of the intervention point. If you press button "SET" or "FNC" again, or if you wait longer than 15 seconds, the last value visualized remains memorized and label "SP1" will appear on the display. As soon as the temperature is reached, the burner will operate the control system automatically, maintaining thus a constant temperature.

❖ RESET procedure

Normally, the first time the equipment is started-up, a general reset should be done as follows:

1. Perform all start-up steps
2. While having the selector positioned in position "2" and the green button pressed, press the red button that is installed on the inside, on the left side of the device, for 10 seconds.
3. When stopping pressing, the red light will go out and the spark control unit will start-up and ignite the equipment.

NOTE: when the selector is not in position "2" and the green button is not pressed, resetting will not work.

8.2. TURNING OFF

To turn off the fryer correctly, proceed as follows:

- a. Press the red push-button.
- b. Turn the selector to position 1, in rest position, to deactivate the burner.
- c. Once the gas supply is closed, put the selector in position 0 to switch off the electrical power.
- d. At the end of the day, close the main gas valve (installed before the fryer).

8.3. FRY POT DRAINING

The fryer is equipped with a faucet inside to drain the oil. The faucet can be accessed to through the front door. To avoid fluid spilling, place an appropriate tub (not included in the fryer) under the faucet.

Before draining the oil, always turn off the fryer first and allow the oil to cool to room temperature.

8.4. MAINTENANCE AND CLEAN UP

Clean stainless steel parts daily with soapy temperate water. Rinse thoroughly with water.

Eventually, clean the fryer with stainless steel wool following the direction of the profile of the stainless steel. Never clean stainless steel surfaces with scourers, steel brushes, etc. since the deposited ferritic particles can provoke oxidation points.

Do not use corrosive chemicals, nor abrasives or flammable products to clean the fryer.

If the fryer is not used for a long period of time, lubricate the stainless steel surface with Vaseline oil to protect it. Clean the fry pot of the fryer from time to time. Fill the fry pot with water and detergent and let it boil a few minutes. Rinse the fry pot with abundant cold water.

IMPORTANT: Clean the outside of the fryer only with a humid cloth. Do not point high pressure water jets to the device to avoid leaks and/or damages to the security systems.

8.5. TECHNICAL MAINTENANCE

To ensure optimum use and safety, check the fryer periodically, at least once a year.

All controls must be performed by qualified staff or a technician authorized by the manufacturer.

The instructions for maintenance are indicated in chapter 4 - Technical Maintenance.

8.6. ELECTRICAL SCHEME

