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- BESIDES THIS EQUIPMENT, A COMPLETE RANGE OF OTHER PRODUCTS ARE MANUFACTURED, CONSULT OUR DEALERS  
- DUE TO THE CONSTANT IMPROVEMENTS INTRODUCED TO OUR EQUIPMENTS, THE INFORMATION CONTAINED IN THE  
PRESENT INSTRUCTION MANUAL MAY BE MODIFIED WITHOUT PREVIOUS NOTICE .

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**INSTRUCTION MANUAL**



ELECTRIC FRYER

MODEL  
**FE-20-N**

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## 1. Introduction

## 1.1 Safety

When incorrectly used this equipment is a potentially DANGEROUS machine . Maintenance, cleaning or any other service shall be performed by a duly trained person and with the machine unplugged .

To avoid accidents respect the following instructions:

1.1.1 Read all the instructions.

1.1.2 In order to avoid the risk of electric shocks and damage to the machine, never operate it wearing wet clothes or shoes , install the equipment on a wet or humid surface nor dip it in water or any other liquid, and do not spray water directly on it.

1.1.3 The use of the equipment must always be supervised, specially when used next to children.

**1.1.4 Before cleaning and when not in use or before inserting or removing accessories, maintenance, or other services, disconnect machine from power source.**

1.1.5 - Do not leave the electric cable on the edge of the table or counter nor let it touch hot surfaces.

1.1.6 Do not use the equipment if it is not working correctly, nor if it has been damaged in any way. In case that happens, take the equipment to the nearest Technical Assistance to check it up.

1.1.7 The use of accessories not recommended by the manufacturer may cause personal injuries.

**1.1.8 Keep your hands or any tool out of the machine while operating to avoid personal injuries or any damage to the equipment.**

1.1.9 Make sure the equipment voltage and the network voltage are the same, and the equipment has been solidly grounded.

1.1.10 – Never touch the electric element N°06 (Picture-01) nor the oil when the machine is under used or undergoing its cooling period, both will be extremely hot and will cause burning injuries.

## IMPORTANT

**Children shall be watched in order to avoid them to play with the equipment.**

**IMPORTANT**

Make sure the cord is in perfect conditions for use. If it is not, change it for a new one in accordance with the technical specifications and safety rules .  
The substitution shall be made by a qualified professional , and shall respect the local safety norms.

**IMPORTANT**

This equipment must not be used by children or any persons with reduced physical or mental aptness, lack of experience or knowledge, unless they are under supervision or have received from the person responsible for safety, proper instructions on how to use the equipment.

**IMPORTANT**

In case of emergency take off the plug from its socket.

**IMPORTANT**

Never spray water directly on to the equipment.

**IMPORTANT**

We strongly recommend that the End Users of this machine have readily accessible and available K Class (US Standard or in accordance with local norms/laws) fire extinguishers at the place where the machine will be used.

**IMPORTANT**

Make sure that the oil level is at the indicated level at ALL TIMES. The use of the machine with the oil below the indicated level may result in a fire.

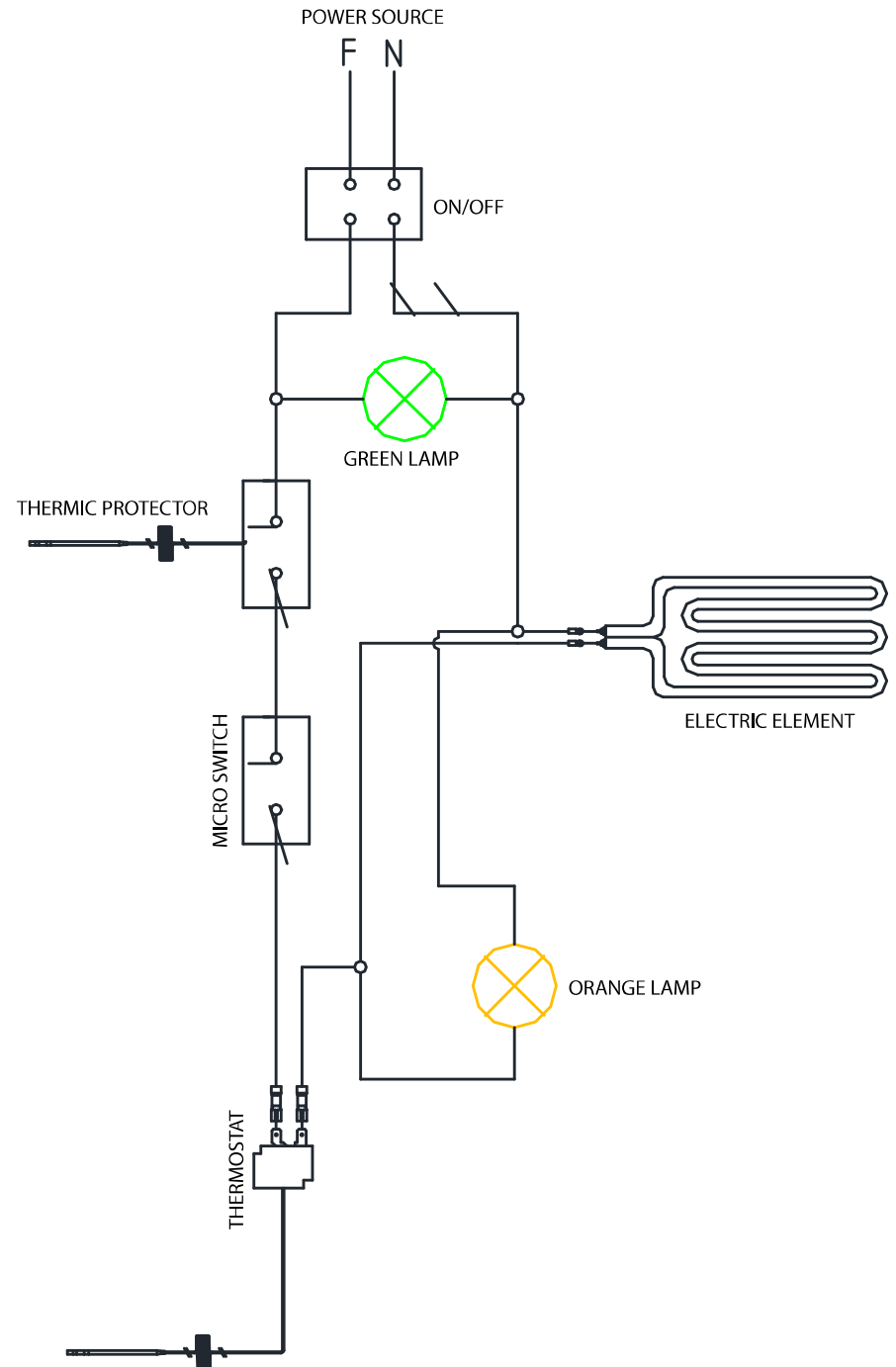
**IMPORTANT**

Pay attention and be careful with boiling sprouts that may occur when placing excessively wet/frozen foods in the tank. Boiling sprouts may also occur if excessive loads of food are placed in the tank.

**IMPORTANT**

Always check if the Control Panel N°2 (Picture-01) is lowered to its correct position. For the End User's safety the machine will not work if the Control Panel is not in its correct position.

## 7. Electric Diagram



6. Observed Norms

The norms observed for the development of this equipment and the production of this manual are :

BRAZILIAN ABNT NBR NORM NM 60335-1  
IEC 60335-2-37

1.2 Main Components

All the components of this machine are made with materials sensibly selected to suit their functions, according to test standards and also Siemens's knowhow.

PICTURE 01



- |                       |                            |
|-----------------------|----------------------------|
| 01 – Basket           | 07 – Thermostat Handle     |
| 02 – Lid              | 08 – Pilot Lamp            |
| 03 – Draining Support | 09 – Oil Level             |
| 04 – Tank             | 10 – ON/OFF Key            |
| 05 – Housing          | 11 – Thermostat Pilot Lamp |
| 06 – Electric Element | 12 – Control Panel         |

### 1.3 Technical Characteristics

**TABLE 01**

| CHARACTERISTICS              | UNIT | FED-20-N  |
|------------------------------|------|-----------|
| Voltage                      | V    | 110       |
| Power Rating                 | W    | 2 x 2000  |
| Temperature Adjustment       | °C   | 0-200     |
| Oil Capacity                 | l    | 5         |
| Height                       | mm   | 310       |
| Width                        | mm   | 560       |
| Depth                        | mm   | 465       |
| Net Weight                   | Kg   | 7,8       |
| Gross Weight                 | Kg   | 9,8       |
| Maximum Capacity of the Tank | l    | 10        |
| Maximum Load                 | Kg   | 0,6 + 0,6 |

**Observation : The fryer has 2 baskets, 2 tanks and 2 lids**

## 2. Installation and Pre Operation

### 2.1 Installation

The Electric Fryer is to be installed onto a levelled, dry and clean surface approximately 850mm high. Make sure that the unit voltage and the voltage in the power source are the same. Always ground the machine in accordance with the local laws, norms and regulations. Should you have any doubts consult an electrician.

The electrical feed cord has 3 round pins, one of them is the ground wire. Its is mandatory that all 3 points are correctly connected before the machine is turned on.

1) Fit the hoop wire to the lower housing of the basket as shown in the pictures N°01 and N°02.

The figure indicates displayed beside the external connecting terminal equipotential.

This should be used to ensure there is no potential difference between different devices connected to the power grid, reducing the maximum risk of electric shock.

The separate equipment must be connected to one another by their respective equipotential connection terminals.

## 5. Analysis and Problem Solving

### 5.1 Problems, Causes and Solutions

The electric fryers have been designed to require minimum maintenance. However, some performance failures may happen due to natural wearing caused by the use of the equipment.

If any problem arises check the table - 03 below, where there are some detailed and recommended possible solutions.

**TABLE 03**

| PROBLEM                               | CAUSE                                                                                                      | SOLUTION                                                                               |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| - The equipment does not start.       | - Energy shortage;<br>- Problem with the electric circuit;<br>- Electric Element and or thermostat burned. | - Check energy supply;<br>- Call Technical Assistance;<br>- Call Technical Assistance. |
| - Oil boils in an exaggerated manner. | - Defective thermostat.                                                                                    | - Call Technical Assistance.                                                           |

#### 4.3.2 Precautions

Check the motor and sliding or turning parts of the machine in case of abnormal noises.  
Check the tension of the belts and chains and replace the set when belts or chains show signs of wearing.

When checking the tension of belts or chains DO NOT insert your fingers between belts and pulleys, nor between the chains and gears.

Check protections and safety devices to make sure they are working properly.

#### 4.4 Operation

##### 4.4.1 Warnings

Do not use the machine with long hair that could touch any part of the machine. This might lead to a serious accident. Tie your hair up well and/or cover it with a scarf.

Only trained or skilled personnel shall operate this machine.

Never touch turning parts with your hands or any other way ,

NEVER operate the machine without any original safety devices under perfect conditions.

#### 4.5 After Finishing The Work

##### 4.5.1 Precautions

Always TURN THE MACHINE OFF before cleaning by removing the plug from the socket.

Never clean the machine unless it has come to a complete stop.

Put all the components back to their functional positions before turning the machine ON again.

Check the level of oil.

Do NOT insert your fingers in between belts and pulleys nor chains and gears.

#### 4.6 Maintenance

##### 4.6.1 Danger

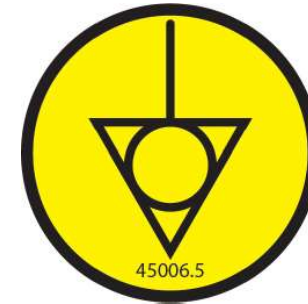
Any maintenance with the machine in working situation is dangerous. TURN IT OFF BY PULLING THE PLUG OFF THE SOCKET DURING MAINTENANCE.

#### IMPORTANT

**Always remove the plug from the socket in any emergency situation.**

#### 4.7 Warning

Electrical or mechanical maintenance has to be undertaken by qualified personnel. The person in charge of maintenance has to be sure that the machine is under TOTAL SAFETY conditions when working.



#### 2.2 Pre Operation

Before starting make sure that the electric fryer is firm on its position and stable.

It is recommended to use the machine on a levelled, dry and clean surface at all times, avoiding accidents.

Before turning on the machine, fill the Tank N°04 (Picture.01) with 5 liters of comestible oil, or until the level mark is reached N°09 (Picture.01)

##### 2.2.1 Procedure to place the hoop in the basket.

Please follow the illustrations below to correctly place the hoop in the basket :

**PICTURE 02**



**PICTURE 03**



2) Press the upper portion of the hoop wire against the upper housing of the basket until the basket is well fit, as shown in pictures N°03 and N°04.

PICTURE 04



PICTURE 05



### 3. Operation

#### 3.1 Starting

1 - Place the Plug into the Socket.

2 - Fill the tank with comestible oil until the level mark is reached as shown on N°09 (Picture.01)

3 - Start the equipment placing the ON/OFF Switch in the ON position N°10 (Picture-01). This will make the Pilot lamp light up (Green light) N°08 (Picture.01) indicating that the machine is turned on.

4 - Program the temperature control (thermostat) N°07 (Picture.01) with the desired temperature. This will make the thermostat pilot lamp light up (Orange light) N°11 (Picture.01)

5 - When the oil in the tank reaches the programmed temperature, the thermostat pilot lamp (Orange Light) N°11 (Picture.01) will go out.

6 - The thermostat pilot lamp (Orange light) N°11 (Picture.01) will light up and go out always when the oil temperature oscillates, this will ensure that the programmed temperature is kept.

7 - Always place food that you wish to fry in the basket and then insert them in the oil. When the frying process is over, to eliminate the excess of oil place the basket in the Draining Support as shown on N°03 (Picture.01).

8 - When the frying process is over, lift up the control panel, rotating it backwards in the vertical position as shown on Picture N°02. This will also lift up the electric element allowing the oil to be drained. By adopting this procedure a better usage of the oil will be obtained.

## 4.2 Safety Procedures and Notes before Switching the Machine ON

### IMPORTANT

Carefully read ALL INSTRUCTIONS of this manual before turning the machine ON. Be sure to well understand all the information contained in this manual. If you have any question contact your supervisor or your nearest Dealer.

#### 4.2.1 Danger

An electric cable or electric wire with damaged jacket or bad insulation might cause electrical shocks as well as electrical leak. Before use, check the conditions of all wires and cables.

#### 4.2.2 Advices

Be sure to well understand all the information contained in this manual. Every operation function or procedure has to be thoroughly clear.

Before using any commands (switch, buttons, lever), be sure it is the correct one. In case of doubt, consult this manual.

#### 4.2.3 Precautions

The electric cable has to be compatible with the power required by the machine.

Cables touching the floor or close to the machine need to be protected against short circuits.

The oil reservoirs have to be filled until the indicated level. Check and refill if necessary.

### OBSERVATION

For your own safety read all the machine stickers.

## 4.3 Routine Inspection

#### 4.3.1 Advice

When checking the tension of the belts or chains, DO NOT insert your fingers between the belts and the pulleys and nor between the chain and the gears.



The following safety instructions are addressed to both the operator of the machine as well as the person in charge of maintenance.

The machine has to be delivered only in perfect conditions of use by the Distributor to the user. The user shall operate the machine only after being well acquainted with the safety procedures described in the present manual. **READ THIS MANUAL WITH ATTENTION.**

#### 4.1 Basic Operation Procedures

##### 4.1.1 Dangers

Some areas of the electric device have parts that are connected or have parts connected to high voltage. These parts when touched may cause severe electrical shocks or even be lethal.

Never touch manual commands such as switches, buttons, turning keys and knobs with your hands wearing wet clothes and/or wet shoes. By not following these instructions operator could be exposed to severe electrical shocks or even to a lethal situation.

##### 4.1.2 Warnings

- \* The operator has to be well familiar with the position of ON/OFF Switch to make sure the Switch is easy to be reached when necessary.
- \* Before any kind of maintenance, physically remove plug from the socket.
- \* Provide space for a comfortable operation thus avoiding accidents.
- \* Water or oil spilled on the floor will turn it slippery and dangerous. Make sure the floor is clean and dry.
- \* Before using any commands (switch, buttons, lever), be sure it is the correct one. In case of doubt, consult this manual.
- \* Never touch any manual commands (switch, buttons, lever) unadvisedly.
- \* If any work is to be made by two or more persons, coordination signs will have to be given for each operation step. Every step of the operation shall be taken only if a sign has been made and responded.

##### 4.1.3 Advices

- \* In case of power shortage, immediately switch the machine off.
- \* Use recommended or equivalent lubricants, oils or greases.
- \* Avoid mechanical shocks, once they may cause damages or bad functioning.
- \* Avoid water, dirt or dust contact to the mechanical and electrical components of the

machine.

- \* DO NOT change the standard characteristics of the machine.
- \* DO NOT remove, tear off or maculate any safety or identification labels stuck on the machine. If any labels have been removed or are no longer legible, contact your nearest dealer for replacement.

**PICTURE 06**



#### **IMPORTANT**

**Be very careful when placing the food when the oil is heated up. Food must be placed gradually (slowly). Sprouting must be avoided. If sprouting begins lift up the basket and slowly lower it back in the oil. Repeat this move as many times as necessary to avoid sprouting. Sprouting will be intense when lower temperature / frozen food are placed in the heated oil.**

#### 3.2 Cleaning

#### **IMPORTANT.**

**Remove the plug from its socket before to start cleaning. Before removing the oil make sure it is cooled out.**

1 – Remove the plug from the socket and wait for the oil to be cooled out.

2 - Before starting to clean the machine, remove all oil.

3 – After the complete removal of the oil from the tank N°04 (Picture.01), wash the internal portion of the tank with water and neutral soap, rinse and dry it. For the remaining parts of the machine use a lightly humid cloth.

4 – After using the machine please make sure all parts are cleaned as indicated on point 3.

**IMPORTANT**

**This machine cannot be immersed in water or any other kind of liquid in order to be cleaned.**

**IMPORTANT**

**Do not spray water directly on the equipment**

### 3.3 Security system

This machine is also equipped with a safety thermostat, which has the function of disconnecting the electrical resistance when the oil temperature reaches the maximum allowable limit.

If during normal process of using the fryer, it off and not return to restart, ie, the oil does not heat up again, turn off the thermostat temperature, disconnect the machine from the mains and wait for the complete cooling oil.

Then press the Reset button nº01 (Fig. 07) and note that the button moves in, producing a sound and feeling a “plec”. If this occurs, it indicates that the safety thermostat has been triggered, then do not use more equipment, taking it to a Technical Assistance nearest Authorized.

**PICTURE 07**



### 3.4 Cautions with Stainless Steel

The Stainless Steel may present rust signs, which ARE ALWAYS CAUSED BY EXTERNAL AGENTS, especially when the cleaning or sanitization is not constant and appropriate.

The Stainless Steel resistance towards corrosion is mainly due to the presence of chrome, which in contact with oxygen allows the formation of a very thin protective coat. This protective coat is formed through the whole surface of the steel, blocking the action of external corrosive agents.

When the protective coat is broken, the corrosion process begins, being possible to avoid it by means of constant and adequate cleaning.

Cleaning must always be done immediately after using the equipment. For such end, use water, neutral soap or detergent, and clean the equipment with a soft cloth or a nylon sponge. Then rinse it with plain running water, and dry immediately with a soft cloth, this way avoiding humidity on surfaces and especially on gaps.

The rinsing and drying processes are extremely important to prevent stains and corrosion from arising.

**IMPORTANT**

**Acid solutions, salty solutions, disinfectants and some sterilizing solutions (hypochlorites, tetravalent ammonia salts, iodine compounds, nitric acid and others), must be AVOIDED, once it cannot remain for long in contact with the stainless steel.**

These substances attack the stainless steel due to the CHLORINE on its composition, causing corrosion spots (pitting). Even detergents used in domestic cleaning must not remain in contact with the stainless steel longer than the necessary, being mandatory to remove it with plain water and then dry the surface completely.

Use of abrasives:

Sponges or steel wool and carbon steel brushes, besides scratching the surface and compromising the stainless steel protection, leave particles that rust and react contaminating the stainless steel. That is why such products must not be used for cleaning and sanitization. Scrapings made with sharp instruments or similar must also be avoided.

Main substances that cause stainless steel corrosion:

Dust, grease, acid solutions such as vinegar, fruit juices, etc., saltern solutions (brine), blood, detergents (except for the neutral ones), common steel particles, residue of sponges or common steel wool, and also other abrasives.

## 4. General Safety Practices

**IMPORTANT**

**If any recommendation is not applicable to your equipment, please ignore it.**