

METALÚRGICA SIEMSEN LTDA.
CNPJ: 82.983.032/0001-19
Rodovia Ivo Silveira - km 12, nº 9525, Galpão 1 - Bairro: Bateas - CEP: 88355-202
Brusque - Santa Catarina - Brasil
Phone: +55 47 3211 6000 - Fax: +55 47 3211 6020
www.siemsen.com.br - comercial@siemsen.com.br

49864.5 - INGLES

Data de Correção: 13/03/2019

- 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.

WWW.SIEMSEN.COM.BR

INSTRUCTION MANUAL



ELECTRIC FRYER WATER AND OIL STAINLESS STEEL

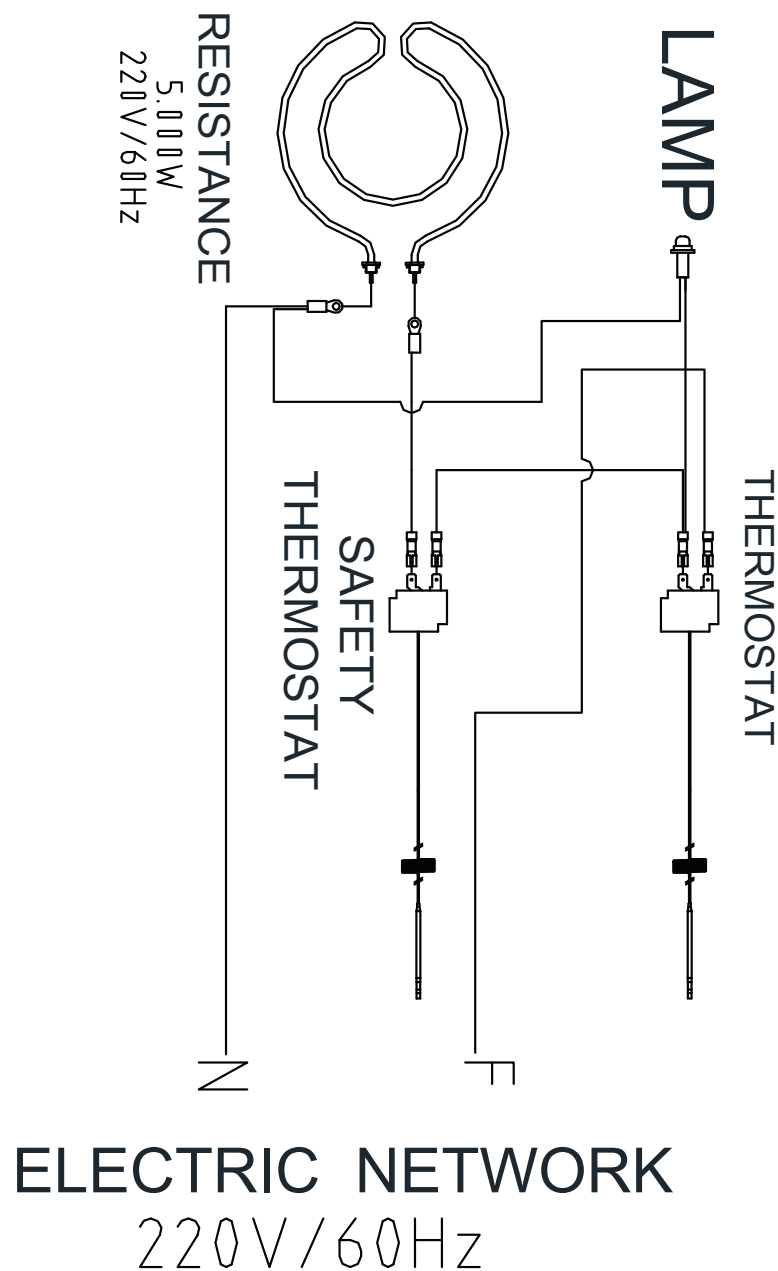
MODEL
FC-N

SUMMARY

1. Introduction	3
1.1 Safety	3
1.2 Main Components	5
1.3 Technical Characteristics	6
2. Installation and pre operation	6
2.1 Installation	6
2.2 Pre Operation	6
3. Operation	7
3.1 Starting	7
3.2 Operation Procedure	8
3.3 Safety System	8
3.4 Cleaning and Sanitizing	9
3.5 Procedure to Change the Salt Water	9
3.6 Caution with Stainless Steel	10
4. General Safety Practices	11
4.1 Basic Operation Practices.....	11
4.2 Safety Procedures and Notes before Switching the machine ON	12
4.3 Routine Inspection	13
4.4 Operation	13
4.5 After finishing the work	14
4.6 Maintenance	14
4.7 Warning	14
5. Analysis and Problem Solving	15
5.1 Problems, Causes and Solutions	15
6. Maintenance	17
7. Electric Diagram	18

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

7. Electric diagram



Electric diagram: 49866.1
Version 01

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 completely these instructions.

1.1.2 To avoid to risk electric shocks and damage to the equipment never use it with wet clothes or shoes and/or standing on wet floors. Do not plunge it into water nor any other liquid, do not spray water directly to the equipment.

1.1.3 When the equipment is in operation the operator shall supervise it, principally when children might be near.

1.1.4 Place the temperature thermostat on position zero and unplug the equipment when: It is not in use, before to clean it, before to remove or to place some accessory, before maintenance or any other service.

1.1.5 Do not operate the equipment if the cord is damaged. Do not lean the cord on table edges, nor let it lie on hot surfaces.

1.1.6 When the equipment may have fall, have been damaged any way, or simply does not work, take it to Technical Assistance to check.

1.1.7 The use of accessories not recommended by the manufacturer may cause corporal damages.

1.1.8 Keep the hands or any other object away from hot parts while the equipment is in operation.

1.1.9 During operation, never wear loose clothes with wide sleeves principally around the wrists.

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

1.1.11 Never switch ON the equipment without salt water or oil.

1.1.12 Never touch the Resistance # 06 (Pic.01) nor the oil while they are hot or during the cooling period because you might be burnt.

IMPORTANT

This equipment is provided with a safety thermostat that will switch OFF the equipment if the temperature thermostat has failed.

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

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

IMPORTANT

Be very careful to avoid ebullience outbreaks if too wet or too much product is placed into the basket.

IMPORTANT

It is recommended to install in the local of use a Fire Extinguisher class K (USA Standard), or meeting local norms or rules.

IMPORTANT

Make sure the oil load is always at the indicated full level , because in case the level is below the specified one there is fire risk.

6. Mantenimiento

Maintenance must be considered a set of procedures with the purpose to keep the equipment best operating conditions, therefore increasing the equipment life and safety.

* Cleaning – Check item 3.4 Cleaning.

* Wiring – Check all wires regarding deteriorate conditions as well as all electric contacts (terminals) regarding tightening and corrosion.

* Contacts – ON/OFF switch, emergency button, reset button, electronic circuits etc, check the equipment in order to assure that all components are correctly working and the equipment operation is normal.

* Installation – Make sure the installation followed item 2.1 instructions.

1 - Each month check:

- Check the electrical installation;
- Measure the voltage at the socket;
- Measure the working current and match it with the nominal current;
- Check the tightening of all electric terminals to avoid bad contacts;
- Check electric motor shaft clearance;
- Check the wiring for overeating, insulation failures and mechanical damages.

2 - Each three month checks:

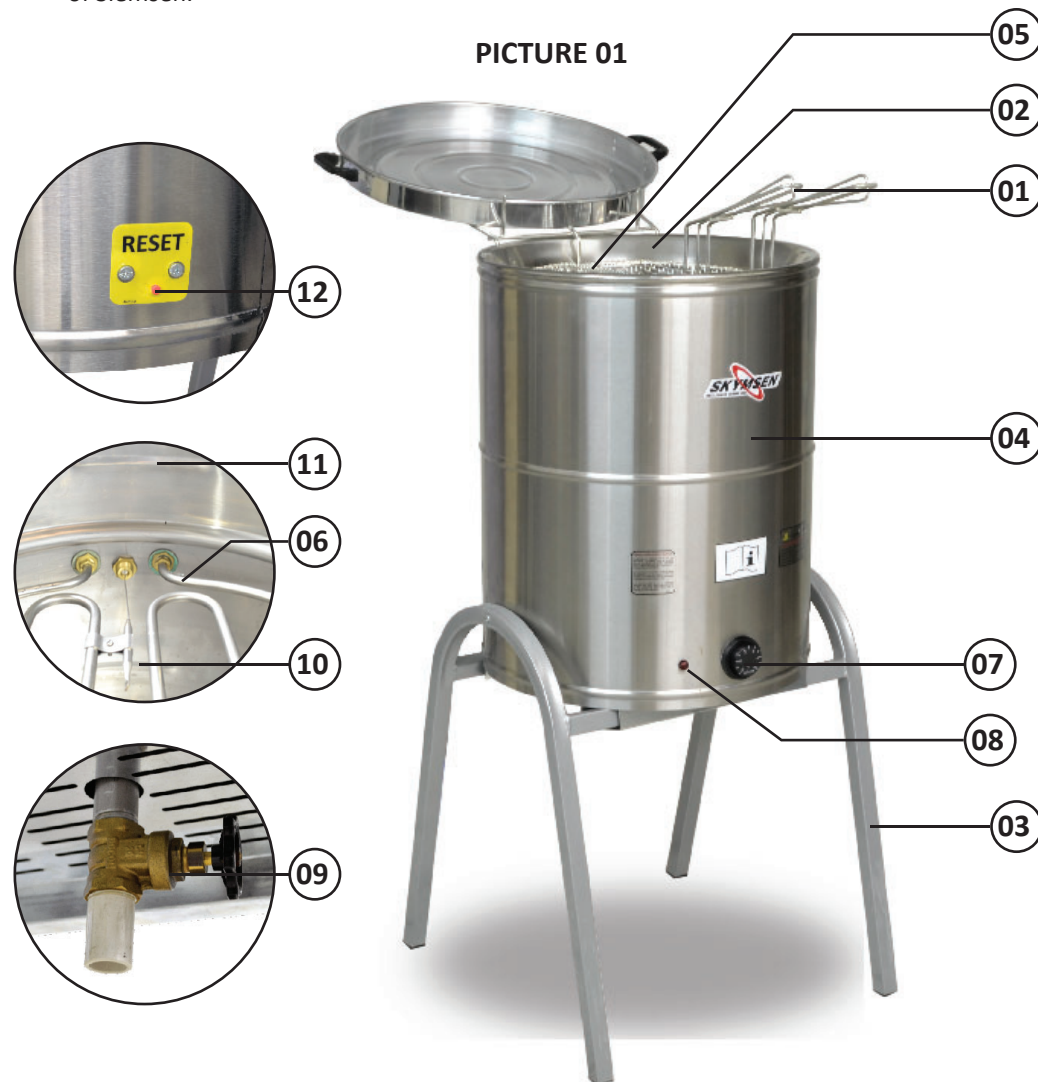
- Check electrical components such as ON/OFF switch, emergency button, reset button, electronic electric circuits, overeating, insulation failings, or mechanical damages.
- Check bearings clearances.
- Check retainers, O'rings, V'rings and other seals.

TABLE 02

PROBLEMS	CAUSES	SOLUTIONS
- The machine does not start.	<ul style="list-style-type: none"> - Electric shortage; - Problem with the electric circuits; - Resistance or Thermostat failure. 	<ul style="list-style-type: none"> - Check electric network; - Call Technical Assistance.
- Smoke or burnt smell.	<ul style="list-style-type: none"> - Problem with the electric circuits. 	<ul style="list-style-type: none"> - Call Technical Assistance.
- Salt water and/or oil Boil.	<ul style="list-style-type: none"> - Temperature or safety thermostats failure. 	<ul style="list-style-type: none"> - Call Technical Assistance.

1.2 Main Components

All components of this equipment were designed and manufactured using carefully selected materials to their proper functions, according to test standards and experience of Siemens.



- 01 - Basket
- 02 - Tank
- 03 - Leg
- 04 - Housing
- 05 - Sieve
- 06 - Resistance (heating element)

- 07 - Temperature Thermostat Knob
- 08 - Pilot Lamp
- 09 - Valve ¾"
- 10 - Salt Water Level Mark
- 11 - Oil Level Mark
- 12 - Safety Thermostat

1.3 Technical Characteristics

TABLE 01

CHARACTERISTICS	UNIT	FC-N
Maximum Load	kg	2
Minimum electric wire gauge	mm ²	4 ou 10 AWG
Voltage	V	220
Frequency	Hz	50/60
Power rating	W	5000
Height	mm	1210
Width	mm	500
Depth	mm	770
Net Weight	kg	14,8
Gross Weight	kg	18
Heating Time	min	20
Water Quantity	L	14
Oil Quantity	L	24
Salt Quantity	kg	1

2. Installation and Pre Operation

2.1 Installation

2.1.1 Placing

The equipment shall be installed upon a dry, levelled and stable surface.

2.1.2 Electric Installation

This equipment has been designed to be used on 220 V single phase network. When receiving the equipment check the voltage given on the cord label;

The cord has no plug and features three wires, ground wire is green and yellow.

Connection to the electric network has to be made at the installation local by a qualified technician, giving special attention to the ground connection.

It is recommended to connect the cord to the network by means of a plug and a socket to allow to unplug the equipment when cleaning or maintenance are performed.

IMPORTANT

Make sure the electric network voltage is 220 V the same voltage indicated on the cord label.

2.2 Pre Operation

Before to start operation all the parts to be in contact with the product shall be washed

5. Analysis and Problems Solving

5.1 Problem, causes and solutions

The equipment has been designed to operate with the need of minimum maintenance but the natural wearing caused by longer use of the equipment may occasionally cause some malfunctions.

If such problem occurs with your equipment, refer to Table 02 in which the most common situations are listed with recommended solutions.

Put all components back to their functional positions before turning it ON again. DO NOT place your fingers in between belts and pulleys nor chains and gears.

4.6 Maintenance

4.6.1 Dangers
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.

with water and neutral soap (see item 3.4 cleaning).

Make sure the equipment is stable on its working place.

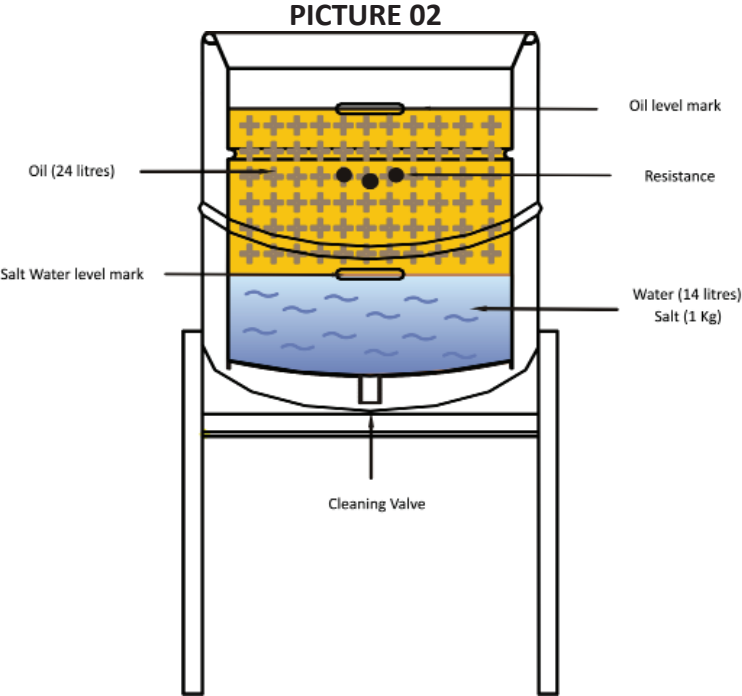
IMPORTANT
Before to put inside the tank the water , the salt and the oil make sure the valve # 09 (Pic.01) is closed to avoid the water to flow trough it.

3. Operation

3.1 Starting

Before to Switch ON the machine, load the Tank # 02 (Pic.01) with 14 litres of WATER, one Kg of SALT, up to the Tank Salt Water level mark # 10 (Pic.01). After, load the COMESTIBLE OIL up to the Oil level mark # 11 (Pic.01), the full tank oil load is reached with 24oil litres or 27 cans.

To start the equipment turn clockwise the Temperature Thermostat knob # 07 (Pic.01), the Pilot Lamp # 08 (Pic.01) will light. Turn the knob up to the desired temperature. To switch OFF the equipment return the Temperature Thermostat to position zero
The resistance # 06 (Pic.01) will remain switched ON while the Pilot Lamp # 08 (Pic.01) is lighted, the light turns OFF when the desired temperature is reached.



Oil levels are shown on picture 02. For perfect operation and the best safety it is necessary a strict respect of oil and water levels.

3.2 Operation Procedure

As soon as the oil reaches the determined temperature (about 20 minutes) place the product to be fried inside the basket # 01 (Pic.01) and dive the basket in the Tank # 02 (Pic.01), and let it stay as long as it is necessary to fry the product.

IMPORTANT

This Equipment was designed to be used with a water and oil system. When frying products that produce excessive residues, it is possible to use only oil in the frying tank, not adding water.

IMPORTANT

**Be very careful when diving the product inside the tank when the oil is hot, the product shall be introduced gradually. Avoid bubbling.
Lift the basket when bubbles start coming up, then dive it again. Lift and dive as many times it would be necessary. Bubbling will be intense when the product is at low temperature.**

3.3 Safety System

This machine is also equipped with a safety thermostat, which has the function to disconnect the electrical resistance when oil temperature reaches the maximum limit allowed.

If during the normal course of use of the fryer, the same turns off and does not restart, in other words, if the oil does not returns to heat, turn off the temperature thermostat, disconnect the machine from the electrical grid and wait for the total oil cooling.

Following, press the Reset Button nº01 (Fig. 03) and observe if the button moves inward, producing a sound and feeling a “Click”. If this occurs, indicates that the safety thermostat was triggered, then no longer use the equipment, taking it to a closest Authorized Technical Service.

PICTURE 03



Any manual command (switch, button or lever) shall be given only after being sure it is the correct one.

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.

4.3 Routine Inspection

4.3.1 Advice

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

4.3.2 Precautions

Check if motors and sliding or turning parts of the machine produce abnormal noises.

Check the tension of the belts and chains and replace the set when belt or chain show signs of being worn out.

When checking tensions of belts or chain DO NOT introduce 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 Advice

Be sure your hair is not loose in order to avoid getting caught by turning parts which could lead to a serious accident. Tie your hair up well and/or cover your head with a scarf.

The operation performed by not trained or skilled personnel shall be forbidden.

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

4.5 After Finishing The Work

4.5.1 Precautions

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

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

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 floors clean and dry.

Never use a manual command (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 Precautions

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 and dust entrance on the mechanical e electrical components of the machine.

Do not change the standard characteristics of the machine.

DO NOT remove, tear off or maculate any labels stuck on the machine. If any labels have been removed or are no longer legible, contact your nearest dealer for replacement.

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 ALL INSTRUCTIONS in this manual have been thoroughly understood. Every function and operational procedure has to be thoroughly clear to the operator.

3.4 Cleaning and Sanitizing

IMPORTANT

Make sure the Temperature Thermostat is on position zero, and then unplug the machine. Make sure the oil is totally cold.

The equipment shall be cleaned and sanitized when:

- Before to operate it the first time;
- After each working day a partial cleaning shall be made;
- After five operation days a total cleaning and sanitizing operation shall be made;
- Before to operate after a long inactivity period.

1 - Every day cleaning;

At the end of a day of operation a partial cleaning shall be made. Firstly place the temperature thermostat on position zero, unplug the equipment and let the oil cool down, clean with a damp cloth the exposed parts of the equipment, then let flow out the residuals opening the cleaning valve (# 09/Pic.01 and Picture 02) to eliminate any residual from the tank bottom.

The baskets must be cleaned with water and neutral soap.

At the end of cleaning salt water shall be added up to its level mark.

2 - Every five days cleaning;

Firstly place the temperature thermostat on position zero, unplug the equipment and then let the oil cool down. To remove the SALT WATER and the OIL open the valve # 09 (Pic.01) and let them flow out until the tank # 02 (Pic.01) is completely empty.

After, wash the Tank inside with water and neutral soap, rinse and dry it. Wash the remaining equipment parts and the basket with water and neutral soap.

3 - In between cleaning;

If it happens that the salt water has to many residues before the end of the five days of operation period, it may be useful to remove all the salt water. In such a situation clean oil may be recovered. To do the recovery let the valve open until all the salt water flows out and shut the valve. Place a bowl below the valve and recover the oil.

Then fill up the tank with the recovered oil making sure the oil level is reached.

IMPORTANT

Never spray water directly on the equipment.

3.5 Procedure to change the Salt Water

IMPORTANT

The time period to change the Salt Water shall never exceed five days.

IMPORTANT

Oil shall also be changed, because old oil has a lower flaming point and may also be subject to ebullience outbreaks.

- Before to remove the salt water place the temperature thermostat on position zero, unplug the equipment and wait the oil to cool down.
- Open the valve # 09 (Pic.01) and watch the instant the oil begins to flow out, then close the valve.
- To put the new salt water inside the tank , just let it flow on the cold oil.

IMPORTANT

Do not open the valve before the oil is completely cold.

3.6 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.

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 Practices

4.1.1 Dangerous parts

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 fatal.

Never touch commands such as buttons, turning keys and knobs with wet 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.