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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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INSTRUCTIONS MANUAL



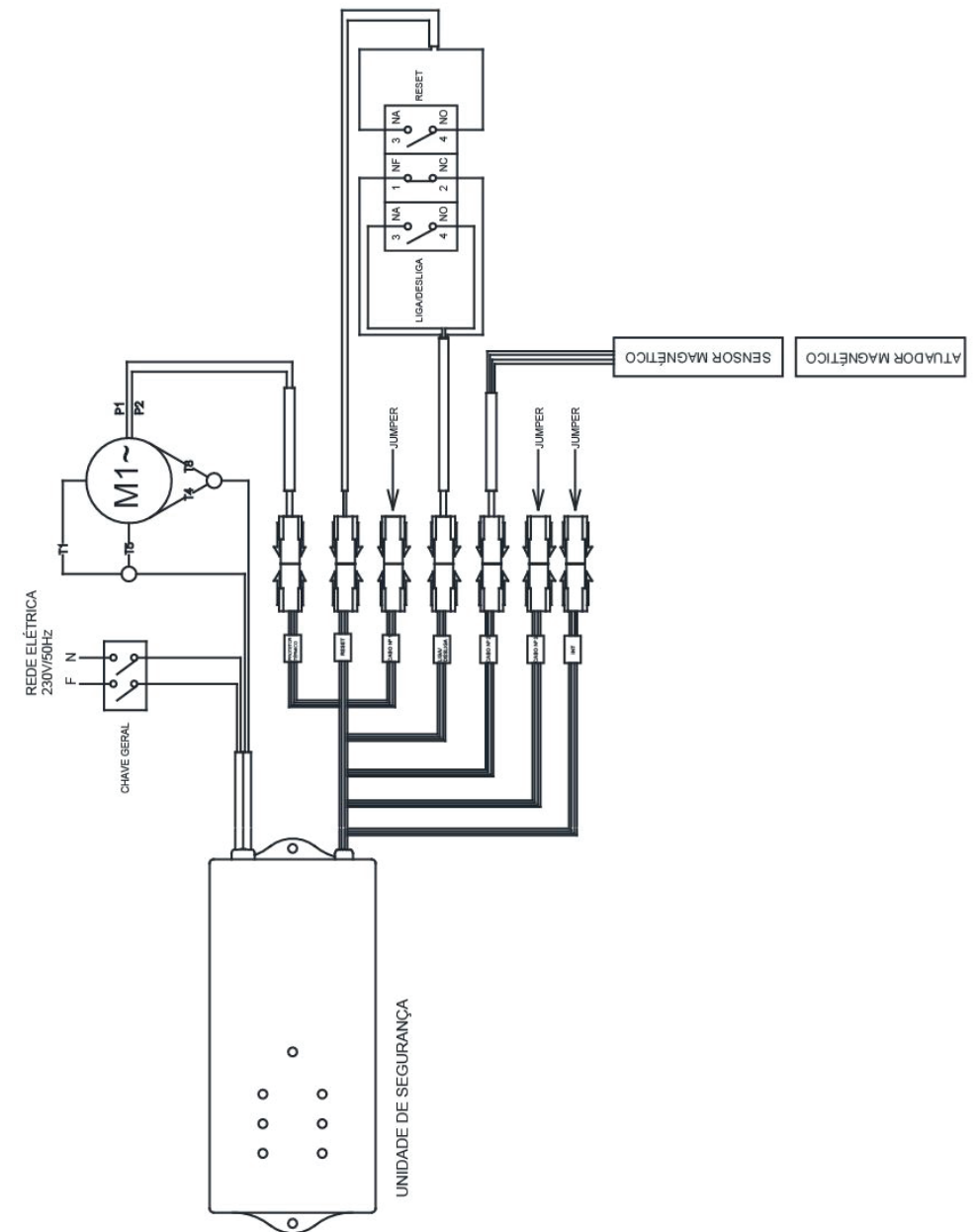
MINI TABLE BAND SAW FOR BONES, INOX, WITH PUSHER, FIXED  
TABLE, CUT REGULATOR, BLADE 1.740 mm

MODEL  
**ML**

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## 8. Electric Diagram



## 6. Applicable Norms

ABNT NBR NM 60335-1  
IEC 60335-2-64

## 7. MAINTENANCE

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 3.3 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.

\* Useful life of the product: 2 years, for a normal working shift.

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 for possible looseness.
- Check the wiring for overheating , 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 cutting units and bearings for possible looseness.
- Check retainers, O’rings, V’rings and other seals.

## 1. Introduction

### 1.1 Safety

When not properly used this equipment is a potentially dangerous machine. maintenance, servicing, cleaning or any other operation shall be made by trained people. Plug has to be off outlet during any of these operations.

Below instructions shall be respected to avoid accidents :

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 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 or plug are damaged. Do not lean the cord on table edges , nor let them 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 injuries.

1.1.8 Keep the hands or any other object away from moving parts while the equipment is in operation, to avoid injures or damage to the equipment. .

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 adjust the Blade Guide nor the Thickness Guide with the machine running

1.1.12 Use steel gloves during the operation.

1.1.13 This equipment has been developed for commercial operation, it is used for instance in restaurants, fast foods, hospitals, bakeries, butchers and similar.  
It is not recommended to use it

- For continuous industrial production
- A working ambient having a corrosive or explosive atmosphere, or contaminated with water vapour, dust or gas.

**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**

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

**IMPORTANT**

**Never spray water directly on to the equipment.**

**TABLE 02**

PROBLEMS	CAUSES	SOLUTIONS
The equipment does not switch on.	Lack of power. Problem with the internal or external circuits of the equipment.	Check if there is electric power. Call Technical Assistance. Apply item 3.1 instructions.
Smoke or burn smell.	Problem with the internal or external electric circuits	Call Technical Assistance.
Machine switch on but when product touches the blade it stops or runs slowly.	Belt slipping on pulleys. Damaged motor Blade is not well stretched.	Call Technical Assistance. Call Technical Assistance. Call Technical Assistance.
Unusual noises.	Damaged bearing	Call Technical Assistance.
Damaged Cord	Problem during transportation.	Call Technical Assistance.

5. PROBLEMS ANALYSIS and SOLUTIONS

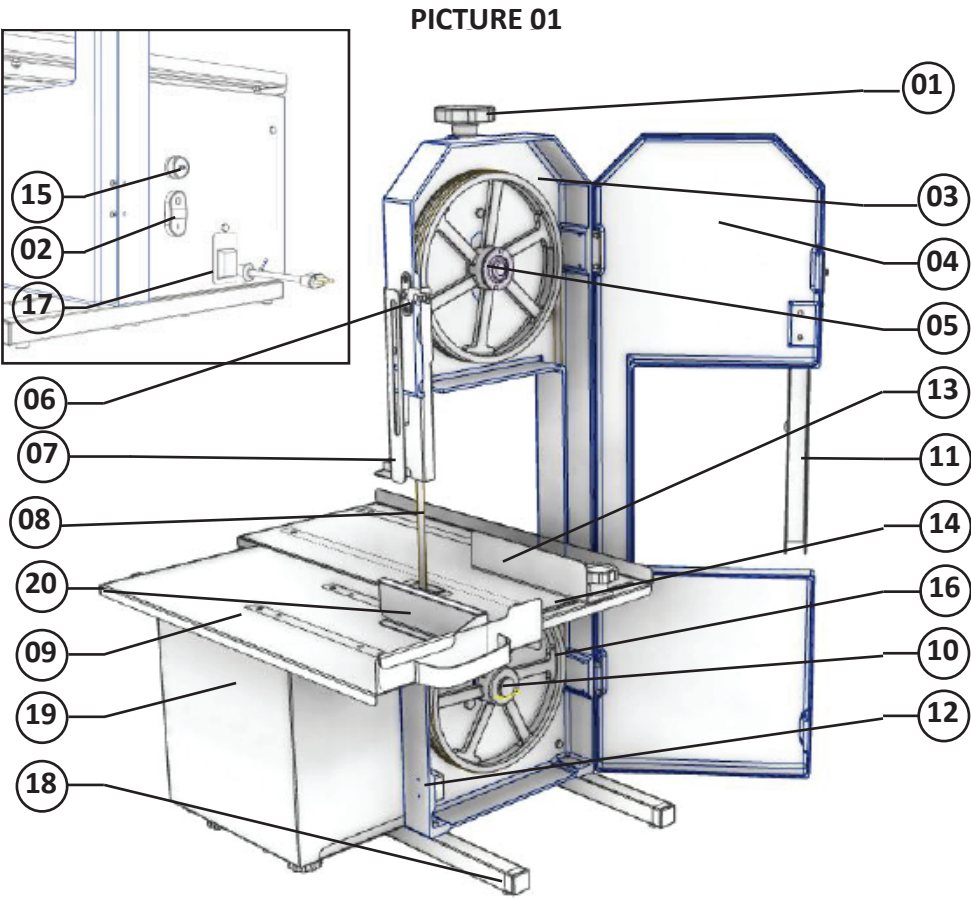
5.1 Problems, Causes and Solutions

This equipment has 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 below, where there are some detailed and recommended possible solutions.

1.2 Main Components

All components are manufactured with carefully chosen raw materials in accordance with Skymssen experience and testing standards.



- |                             |                      |
|-----------------------------|----------------------|
| 01 - Blade Regulator Handle | 11 - Vertical Pusher |
| 02 - ON/OFF Switch          | 12 - Safety Sensor   |
| 03 - Header                 | 13 - Cut Regulator   |
| 04 - Door                   | 14 - Fixed Table     |
| 05 - Upper Wheel            | 15 - Reset Button    |
| 06 - Locker                 | 16 - Lower Wheel     |
| 07 - Blade Guide            | 17 - Master Switch   |
| 08 - Blade                  | 18 - Foot            |
| 09 - Movable Table          | 19 - Structure       |
| 10 - Wheel Locker           | 20 - Side Pusher     |

1.3 Technical Characteristics

TABLE 01

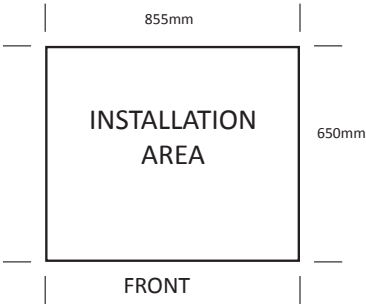
CHARACTERISTICS	UNIT	ML
Voltage	V	230
Frequency	Hz	50
Power Rating	W	450
Height	mm	900
Width	mm	560
Depth	mm	535
Net Weight	kg	34
Shipping Weight	kg	49
Cutting Height	mm	240
Cutting Width	mm	205
Foot to Table Height	mm	335

2. Installation and Pre Operation

2.1 Installation

2.1.1 Placing the Equipment

The equipment must be installed over a firm and level working surface. See below drawing the recommended area



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 liquids.  
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.

### 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.

### 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.

#### 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.

#### 2.1.2 Electric Installation

The equipment has been designed to operate 230 Volts. When you receive the equipment check the voltage indicated on the cord label

### IMPORTANT

**Make sure the network voltage is the same as indicated on the Cord label**

The picture shown below indicates the external equipotential connection terminal.

The connection shall be used to make sure that there are no potential differences among the different equipment connected to the network, avoiding as much as possible electric shock risks.

The different equipment shall be connected one to the other by means of their equipotential terminals.



### 2.2 Pre Operation

Before to use the equipment all the parts which could get into contact with the product to be processed shall be washed with water and neutral soap.

Make sure the equipment is firm on its working position.

### 3. Operação

#### 3.1 Starting

To start the equipment proceed as follows:

- 1 - Make sure all the protections and the door are in due place and the door is closed
- 2 - Make sure the equipment is connected to the electric network;
- 3 - Make sure the Master Switch #01 (Fig-02) turned ON.
- 4 - Press and release the OFF Switch N°03 (Fig. 02).
- 5 - Press and release the Reset Button N°02 (Fig. 02).
- 6 - Press and release the ON Switch N°03 (Fig. 02) to start the equipment.

#### **IMPORTANTE**

**Everytime the door is moved from her position or the power went down, the procedure below has to be done again.**

### 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.

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



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 .

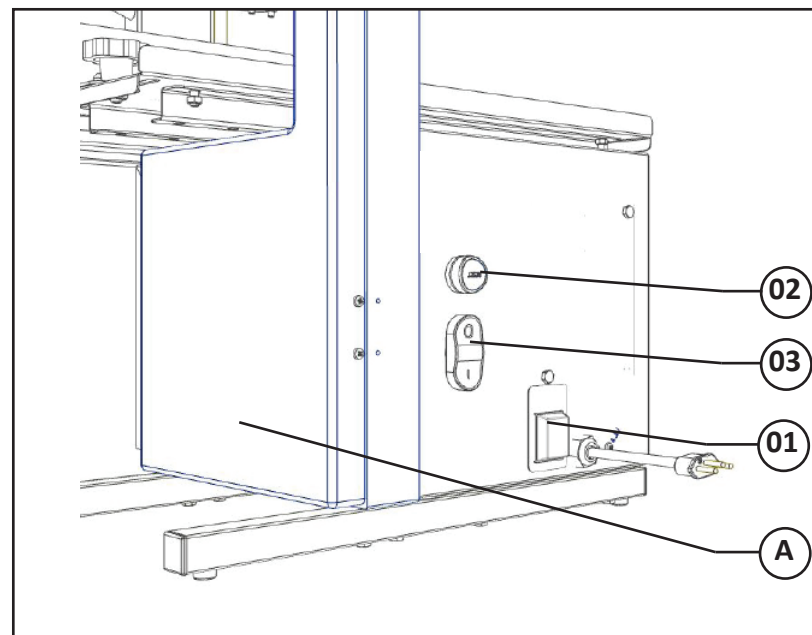
The following safety instructions are addressed to both the operator of the machine as well as the person in charge of maintenance.

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.

### IMPORTANT

Any change in the protection systems and safety devices will during operation, create serious risks to the operator physical integrity

PICTURE 02



## 3.2 Operation Procedure

3.2.1 Make sure the equipment is steady on its working place

### 3.2.2 Blade Guide

With the equipment switched OFF, turn the blade guide handle # 06 (Pic. 01) counter clockwise to get free the Blade Guide # 07 (Pic.01). Then adjust the Blade Guide to have it no more than the height of the product to be cut and tight the blade guide handle # 06 (Pic.01).

### 3.2.3 Door

The Door #04 (Pic. 01) shall be closed as long as the equipment is in use.

### 3.2.4 Cut Regulator

To obtain several same thickness slices adjust the Cut Regulator # 13 (Pic.01) as desired. That for turn the thickness guide handle counter clockwise getting the guide free, then place the Cut Regulator at the desired thickness and tight the Cut REgulator Handle turning it clockwise.

### 3.2.5 Blade

The Blade must be installed with the teeth turned towards the front side of the machine

and with the points downwards.

To regulate ( stretch ) the Blade # 08 (Pic.01) turn clockwise the Blade Tension Regulator Handle # 01 (Pic.01) until it stops.

### 3.2.6 Volante Inferior

The Lower Wheel# 16 (Pic. 01) is assembled on the lower bearing shaft , and fixed by means of the Staple , the staple shall always be placed in the shaft slot. The Lower Wheel may be removed to clean after the Blade has been removed

### 3.2.7 Volante Superior

The Upper Wheel # 05 (Pic. 01) has in its frame the shaft and the bearing.

The Upper Wkeel may be removed to clean after the Blade has been removed.

### 3.2.8 Painele de comando

O painel de comando esta localizado no lado direito do equipamento e possui 01 Botão de Emergência N° 03 (fig. 01), 01 Chave liga / Desliga N°02 (fig. 01) e 01 Botão Reset N° 15 (fig. 01). Para ligar a máquina, proceda conforme descrito no item 3.1.

Before to start the machine

Push the Movable Table # 09 (Pic, 01) totally to the front side of the machine.

Place the product to be cut on the Movable Table.

Choice the slices thickness and adjust the Cut Regulator# 13 (Pic.01).

Adjust the Blade Guide # 06 (Pic, 01) to no more than the height of the product to be cut.

Stay in front of the machine to have a front sight of the Blade.

Start the Machine

To start the machine press the ON Switch.

Catch the Movable Table with the left hand and push against the Blade cutting the product at constant speed.

After finishing the whole slice remove it with the right hand.

The slice shall ALWAYS be removed behind the Blade to avoid the hand to contact the Blade

Place the slices upon the Fixed Table # 14 (Pic. 01).

Wash all the components with water and neutral soap.

### **IMPORTANT**

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

Use a clean cloth or a soft brush to remove residues.

Wash, sanitize, rinse and dry all the components.

Assemble back all the components following the inverse path , and make sure all the components are correctly in place.

### **3.5 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**

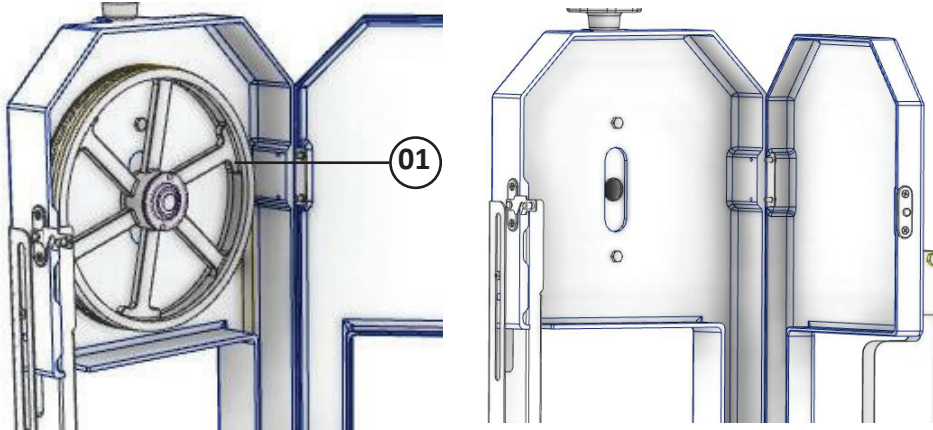
**Acid solutions, salty solutions, disinfectants and some sterilizing solutions (hypochlorites, tetravalent ammonia salts, iodine compounds, nitric acid and others), must be AVOIDED, once it cannot remain for long in contact with the stainless steel:**

the front side of the equipment , see picture 69.

- Upper Wheel

First remove the Blade and grab strongly the Upper Wheel # 01 (Pic. 07) then lift it and pull it to the front side of the machine.

**PICTURE 07**



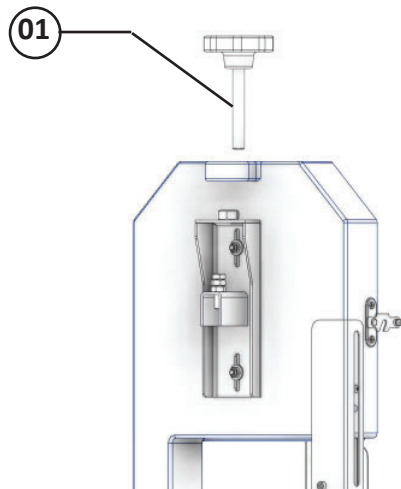
- Blade Regulator

Turn around the Blade Regulator Handle N° 01 (Fig. 08) counter clockwise until the complete removal of the stretcher N° 02 (Fig. 08).

- Blade Regulator Handle

Remove the Blade Regulator Handle N° 01 (Fig. 09) from the structure.

**PICTURE 08**



Bring back the Movable Table to the front side of the machine and repeat the above steps until to have finished to cut all the product.

After the end of the last slice press the OFF Switch.

**IMPORTANT**

**Never remove the slices by the Blade front side.**

**3.3 Safety System**

This Equipment has a safety system to avoid the machine to restart automatically when the power is cut off.

It has 3 sensors located on Upper Door, Lower Door and Blade Protector

**IMPORTANT**

**This Equipment has a safety system to protect the operator. The operation has to be in accordance to item "Operation" on this Instruction Manual. Other procedures to operate this equipment are dangerous, and equipment should not be used.**

**3.4 Cleaning and Sanitizing**

**IMPORTANT**

**Make sure the equipment is not connected to the electrical network before starting the procedures below.**

When the equipment must go through a complete cleaning and sanitization process:

- Before to be used first time.
- After every day end of operations
- When the saw is not going to be used for a long period.
- Before to start operation after a long period it has not been used.

Some components may be removed to clean :

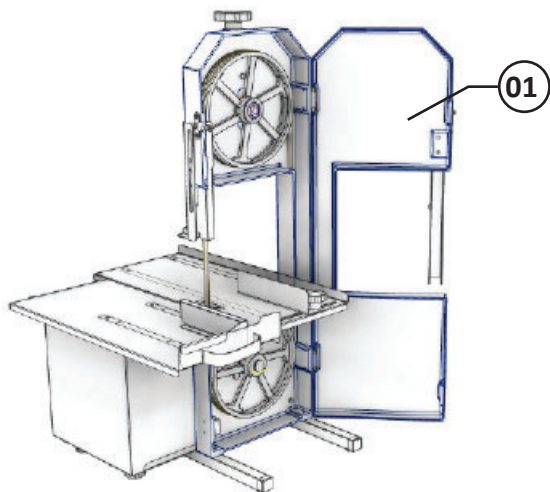
- Door
- Movable Table
- Fixed Table Block
- Blade
- Upper Wheel
- Lower Wheel
- Blade Tension Regulator Handle
- Blade Tension Regulator

Follow below instructions to remove the above mentioned components :

- Door

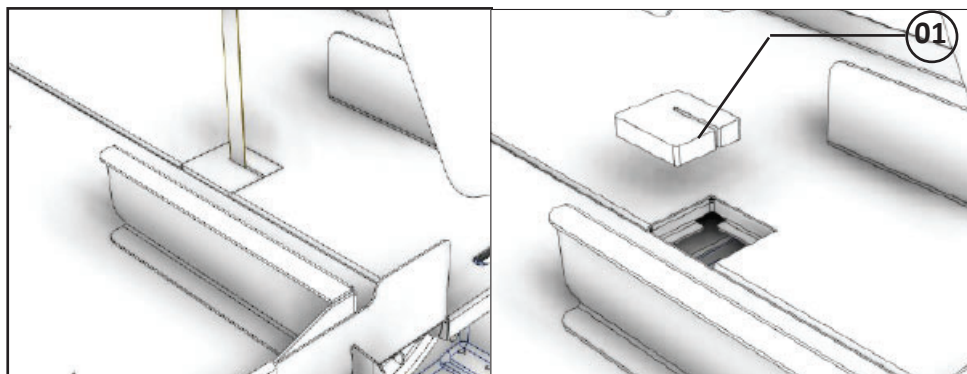
Turn the two Door handle counterclockwise until they get free from their screws.

**PICTURE 03**



Open the Door # 01 and Door #02 (Pic. 03) grab it strongly and lift the Door.  
 -Saw Block  
 Remove the Block N°01 (fig. 04) vertically until he is completely removed.

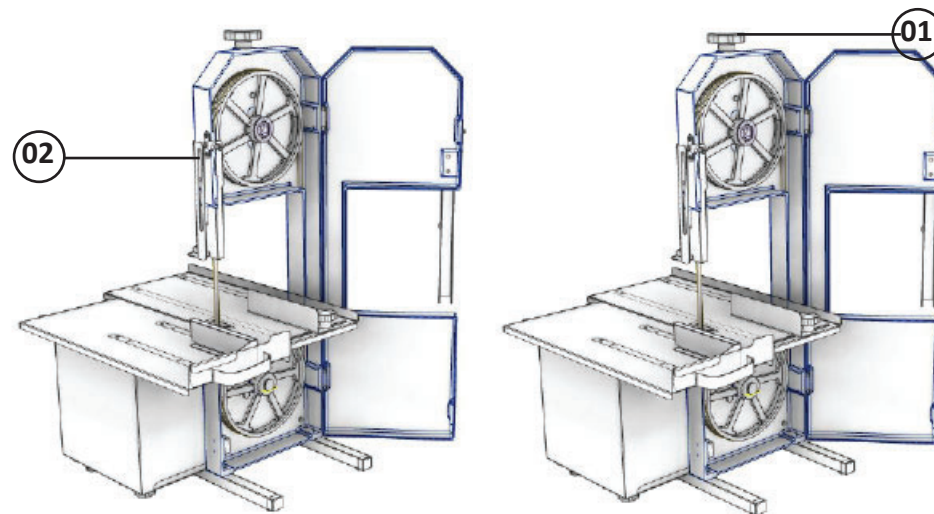
**PICTURE 04**



- Blade

Turn the Blade Tension Regulator Handle # 02 (Pic 04) counter clockwise to get the Blade #

**PICTURE 05**



01 (Pic. 04) free to be removed.

- Lower Wheel

Remove the Staple # 01 (Pic. 06) grab strongly the Lower Wheel # 02 ( Pic. 06) and pull it to

**PICTURE 06**

