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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



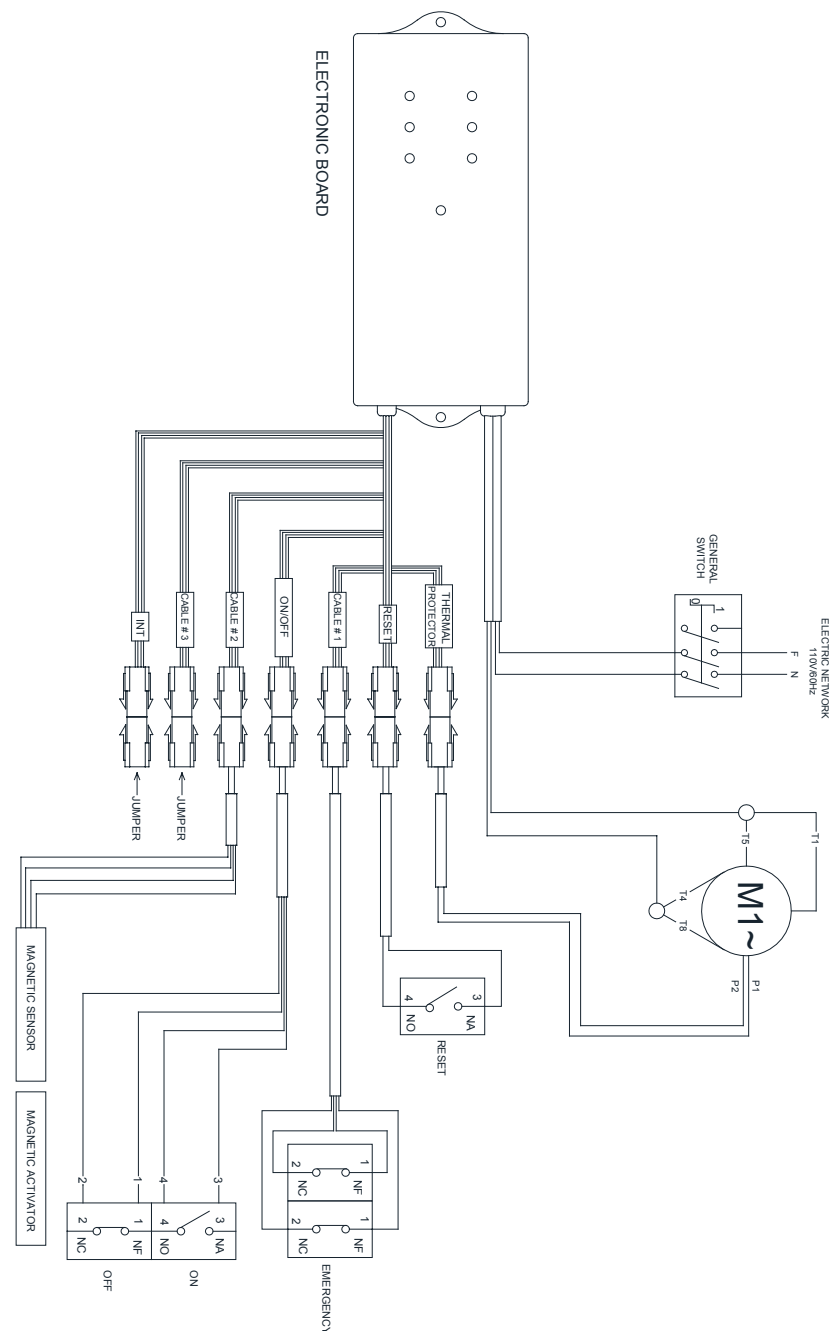
MEAT AND BONE TABLE SAW STAINLESS STEEL, WITH PUSHER,
MOVABLE TABLE, THICKNESS GUIDE , 1,880 MM BLADE

MODEL
MSKL-N

SUMMARY

1. Introduction	3
1.1 Safety	3
1.2 Main Components	5
1.3 Technical Characteristics	6
1.4 Labels	6
2. Installation and Pre-Operation	8
2.1 Receiving and Unpacking	8
2.2 Installation	8
2.3 Pre-Operation	9
3 . Operation	10
3.1 Starting.....	10
3.2 Procedure for Operation	11
3.3 Safety System	13
3.4 Cleaning and Sanitization.....	13
3.5 Cautions with Stainless Steel.....	18
4. General Safety Practices	20
4.1 Basic Operation Practices.....	20
4.2 Safety Procedures and Notes before Switching the Machine ON	21
4.3 Routine Inspection.....	21
4.4 Operation	22
4.5 After Finishing The Work.....	22
4.6 Maintenance	22
4.7 Warning.....	23
5. Problems, Analysis and Solutions.....	24
5.1 Problems, Causes and Solutions.....	24
6. Applicable Norms	26
7. Maintenance	26
7. Electric Diagram.....	27

7. Electric Diagram



Código do Diagrama Elétrico: 49904.8
Versão do Diagrama Elétrico: Versão 01

6. Applicable Norms

The following Norms apply:

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 3,4 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.

* Life Span - The equipment used in normal working hours, has a two year Life Span.

* 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

1. Introduction

1.1 Safety

When misused, this equipment can be potentially DANGEROUS. Maintenance, cleaning or any other service on this machine must be made only by properly trained technicians and the power plug must be disconnected.

For your safety, the following instructions must be respected in order 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 damages .

1.1.8 Keep the hands or any other object away from moving 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 adjust the blade guide nor the thickness guide when the machine is on operation

1.1.12 Use steel gloves when operating the machine

1.1.13 this equipment has been designed to be used in commercial kitchens. It is used for instance by restaurants, cafeterias, hospitals, butchers and similar.

The use of this equipment is not recommended when :

The production process is an industrial continuous process

The working local has a corrosive, explosive, gas or water vapor contaminated atmosphere.,

IMPORTANT

For the safety of the operator, the equipment brings a safety system which prevents machine involuntary starting after an occasional electricity shortage.

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

If the Cord is not in good conditions of use, to avoid accidents it must be replaced by the supplier, an authorized technician or someone qualified for the service

IMPORTANT

It is recommended children to be watched in order to not let them play with the equipment.

IMPORTANT

Never spray water directly on the equipment.

TABLE 02

PROBLEM	CAUSES	SOLUTIONS
The machine does not turn on	Machine is not connected to the power supply	Connect the electric cable to the power supply
	Thermal Protector is activated	Wait some minutes and reset the Thermal Protector
	Power shortage	Check if there is Electric Power
	Problem on the internal or external electric circuit	Call Technical Assistance
	Protection System is functioning	Apply reset procedure
Burnt smell or smoke	Problem on the internal or external electric circuit	Call Technical Assistance
The machine switches on, but when product gets in contact with the blade, it stops or turns in low rotation	Skidding belt	Turn handle #01 (Pic. 01) to increase the pressure between the blade and the wheels
	Motor starting capacitor with defect	Call Technical Assistance
Blade tears frequently	Dirt on blade or wheels	Do the cleaning according to item 3.4
	Wheel has some defect	Change the wheel
Difficulty to cut the product	Dirt on blade or wheels	Do the cleaning according to item 3.4
	Blade with wrong tension	Calibrate the blade, see item 3.2.5
	Blade out of center	Call Technical Assistance
	Blade sharpness is lost	Replace the blade
Strange noises	Bearing defective	Call Technical Assistance
	The blade is sliding on the wheel	Call Technical Assistance
	Blade Wrongly welded	Call Technical Assistance
Cord is defective	Problem during transport	Call Technical Assistance

5. Problems, Analysis and Solutions

5.1 Problems, Causes and Solutions

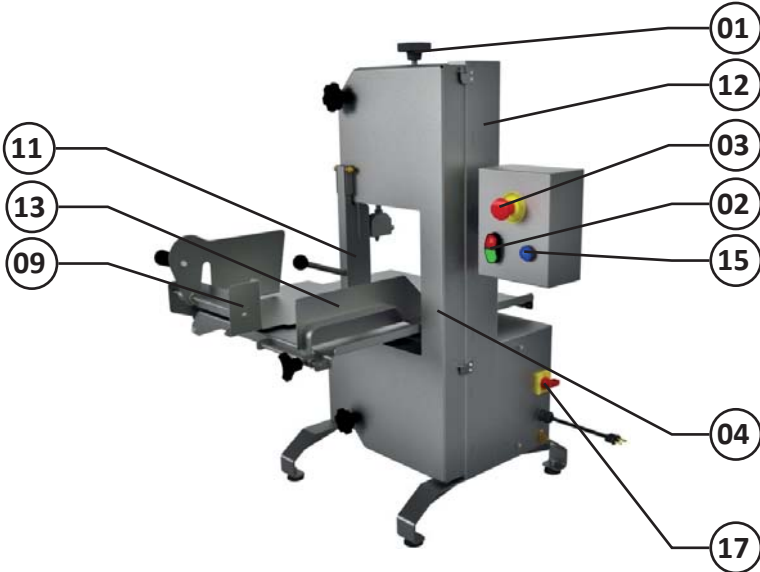
The Saws have been designed to need minimum maintenance, however, some performance failures may happen due mainly to natural worn out, caused by the use of the Saw.

If some problems arise with your Band Saw check Table - 02 below where there are detailed some possible solutions.

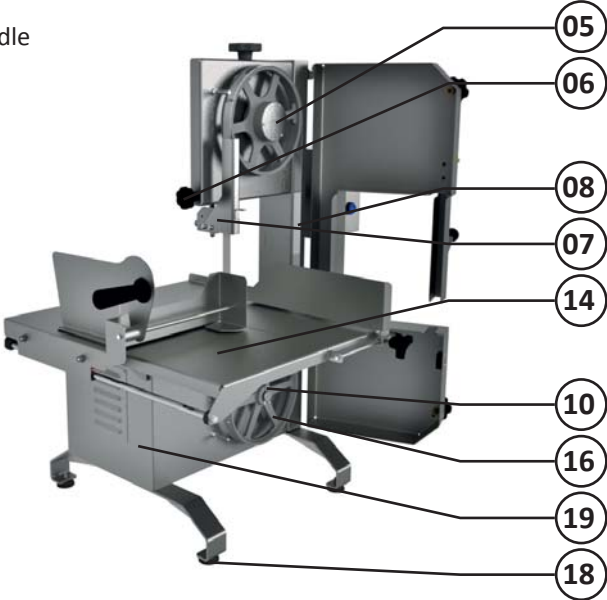
1.2 Main Components

All components of this machine were made of raw materials carefully selected for each function, according to the test patterns and Siemens experience.

PICTURE 01



- 01- Blade Tension Graduator Handle
- 02- ON/OFF Switch
- 03- Emergency Button
- 04- Door
- 05- Upper Wheel
- 06- Handle
- 07- Blade Guide
- 08- Blade
- 09- Movable Table
- 10- Loop
- 11- Pusher
- 12- Frame
- 13- Thickness Guide
- 14- Fixed Table
- 15- Reset Button
- 16- Lower wheel
- 17- General Switch
- 18- Feet
- 19- Motor Housing



1.3 Technical Characteristics

TABLE 01

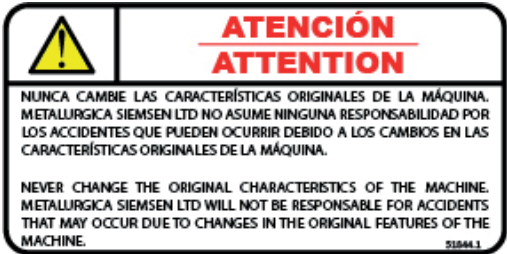
CHARACTERISTICS	UNIT	MSKL-N
Voltage	V	220
Frequency	Hz	60
Power Rating	W	800
Consumption	kW.h	0,8
Height	mm	1000
Width	mm	830
Depth	mm	710
Net Weight	kg	61
Gross Weight	kg	75
Maximum Cut Width	mm	210
Maximum Cut Height	mm	160

1.4 Labels

Instruction Manual



Original Characteristics Label



Equipotential Label



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.

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.

Label used to warn about to be careful during maintenance and cleaning



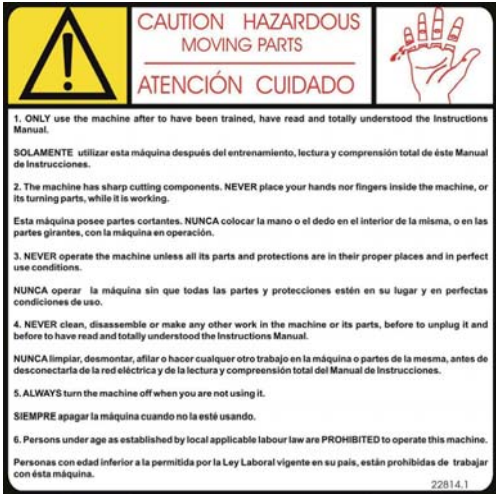
Label to warn not to spray water directly over the equipment



Label to warn about the working direction



Attention Label - Used to call attention to zone of danger



2. Installation and Pre-Operation

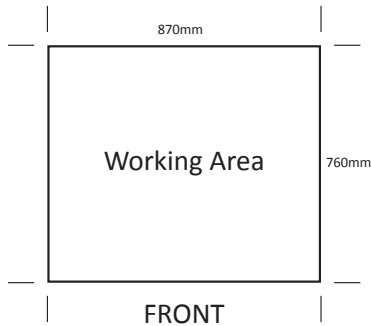
2.1 Receiving and Unpacking

As soon as the equipment is received, check the packaging integrity. If packaging is damaged, check if there has been some damage to the equipment during transportation. If damage has been found, keep the packaging and contact immediately the transporter

2.2 Installation

2.2.1 Placing the saw

The Saw must be installed over a firm and level working surface), see picture 03 below , the recommended area



- * 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

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.

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

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 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.

2.2.2 Electric Installation

The equipment has been designed to operate 127 Volts. When you receive the equipment, check the voltage indicated on the cord label

The power plug has 3 pins the middle pin is the ground. All the 3 pins must be properly connected.

IMPORTANT

Make sure the network voltage is the same as indicated on the cord label.

Item # 01 Picture 02 is to be connected to the equipotential external wiring

PICTURE 02



IMPORTANT

The equipotential connection shall be made by a qualified professional, and shall be made according local safety norms. Make sure the electric network voltage is the same voltage indicated on Electric Diagram.

2.3 Pre-Operation

Before to start using the equipment all the parts that could be in contact with the product to be processed shall be washed with water and neutral soap. .See item 3.4 Cleaning .

3 . Operation

3.1 Starting

To start the equipment follow the below instructions

1 -Make sure all the protections are in their correct position, and that the door item A (Pic. 03) is duly closed.

2 -Plug the equipment to the network.

3 –Place the General Switch # 04 (Pic 03) position ON.

4 –Make sure the Emergency Button # 01 (Pic.03) is released.

4A –When the Emergency Button is in function it will stay such way.

4B – To release it just pull it up and the equipment will be free.

5 –Press the ON/OFF Switch # 03 (Pic.03) to position “O” OFF.

6 – Press and release reset button # 02 (Pic.03).

7 –Press and release the ON/OFF Switch # 03 (Pic.03) to position “I” ON

IMPORTANT

Any time when the Emergency Button or any other protection is out of position, or when there has been an electricity short cut off, the above instruction must be repeated.

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 they 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.

PICTURE 11



Wash all the parts with water and neutral soap.

IMPORTANT
Never spray water directly on the machine

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

Wash, sanitize, rinse and dry all the parts.

Assemble all the components following the inverse path and make sure that all the parts have been correctly assembled.

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

PICTURE 03



3.2 Procedure for Operation

3.2.1 Make sure the equipment is stable on its working place

3.2.2 Adjust the Blade guide # 07 (Pic.01) to the height of the piece to be cut

3.2.3 The Door # 04 (Pic 01) is connected to a Safety System impeaching the equipment to start with an open door, therefore to have the equipment running the door shall be closed

3,2,4 Thickness Guide

To have several slices with the same thickness adjust the Thickness Guide # 13 (Pic.01) to the desired thickness. That for, turn the Thickness Guide Handle counter clockwise to loose it, then adjust the Thickness Guide to the desired thickness , and tight the handle.

3.2.5 Blade

The Blade shall be installed with the teeth toward the front of the machine , and turned down.

To adjust (stretch) the Blade # 08 (Pic.01) turn the Blade Tension Graduator Handle # 01 (Pic. 01).until it stops.

3.2.6 Blade Guide

With the equipment Switched OFF turn the Handle # 06 (Pic 01) counter clockwise to loose the Blade Guide # 07 (Pic.01) and adjust the Blade Guide to the height of the piece to be cut .

Then tight the Handle # 06 (Pic 01)

3.2.7 Lower Wheel

The Lower Wheel # 16 (Pic 01) is assembled on the lower bearing shaft tight by the Loop # 10 (Pic. 01), this loop shall always be placed over the shaft groove .

The Lower Wheel may be taken out for cleaning after the Blade has been removed (see item 3.4 Cleaning).

3.2.8 Upper Wheel

The Upper Wheel # 05 (Pic. 01) has the shaft and the bearing enclosed..

The Upper Wheel may be taken out after removing the blade (see item 3.4 Cleaning)

3.2.9 Control Board

The control board is placed on the equipment right side and it features one Emergency Button # 03 (Pic.01), one ON/OFF Switch # 02 (Pic. 01) and one Reset Button # 15 (Pic.01) .

To start the equipment follow item 3.1

Before to start the machine:

- Pull the Movable Table # 09 (Pic. 01) totally to the front of the machine-
- Place the product to be cut on the Movable Table
- Choose the slice thickness adjusting the Thickness Guide # 13 (Pic.01)
- Lift the Pusher and place it on the product to be cut
- Adjust the Blade Guide # 07 (Pic 01) to the product height
- Stand in front of the machine to have a front sight of the Blade

Start the machine:

- Place the Pusher on the product to be cut
- To start the machine press ON/OFF Switch button “I”
- Using the Thickness Guide choose the slice thickness. With the left hand hold the Movable Table pusher and with the right hand the Pusher Handle, then slide the movable table towards the Blade cutting the product with a uniform speed.

PICTURE 09



- Blade Tension Graduator

Turn the Graduator Handle # 01 (Pic.10) counter clockwise, until the complete Graduator removal , # 02 (Pic.10).

PICTURE 10



- Blade Tension Graduator Handle

Remove the Handle # 01 (Pic.11) just lifting it.

PICTURE 07



-Lower wheel

Remove the loop # 02 (Pic.07), hold strongly the Lower Wheel and pull it to the front side of the machine until the wheel is completely out, see picture 08

FIGURA 08



- Upper Wheel

Hold strongly the Upper Wheel # 01 (Pic.08) and lift it, then pull the wheel to the machine front side see picture 09

- Having cut the slice use the right hand to remove it. The slice shall always be removed behind the Blade to avoid the hand to contact the blade.

IMPORTANT

Never remove the slice towards the front side of the blade.

Place the slices on the Fixed Table # 14 (Fig. 01)

Return the Movable Table to the machine front side and repeat the process until to have cut all the product.

When the last slice has been cut turn the machine off pressing the ON/OFF Switch to position "O".

3.3 Safety System

- For the safety of the operator, the equipment brings a safety system which prevents machine involuntary starting after an occasional electricity shortage.

-Has a sensor placed on the door

-Has a duple channel relay control system

-Has a maximum 24 V command system

IMPORTANT

This equipment features a safety system to protect the operator. The equipment operation shall obey item "Operation " of this manual,. Any other procedure is unsafe and shall not be used.

3.4 Cleaning and Sanitization

IMPORTANT

Unplug the saw before to start Cleaning.

When the saw 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.

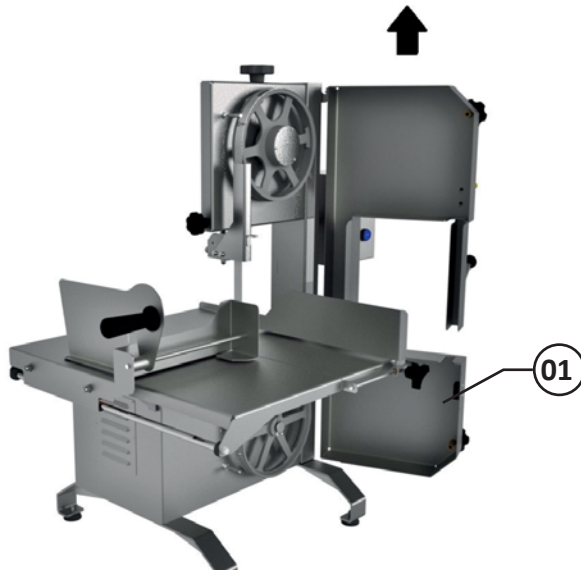
Many parts of this equipment can be removed for cleaning:

Door
Movable Table
Fixed Table
Blade
Lower Wheel
Upper Wheel
Blade Tension Graduator
Blade Tension Graduator Handle

To remove the above mentioned parts follow the below instructions:

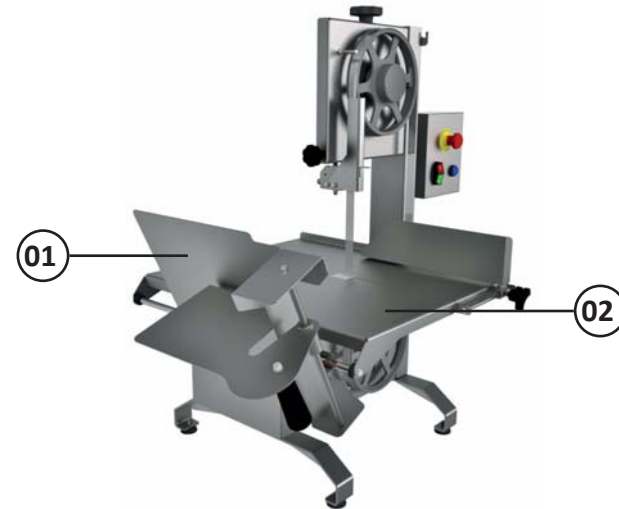
- Door
Open the door # 01 (Pic.04) then lift it.

PICTURE 04



- Movable Table
Lift the movable table to clean # 01 (Pic.05)

PICTURE 05



- Fixed Table
Stay behind the machine, hold strongly the fixed table # 02 (Pic.05) and lift the table to loose the fastening. Then pull the table to the equipment back side until to have it completely removed , see picture 06

PICTURE 06



- Blade
Turn the Blade Tension Graduator Handle # 01 (Pic.07) counter clockwise until the blade gets free for removal.