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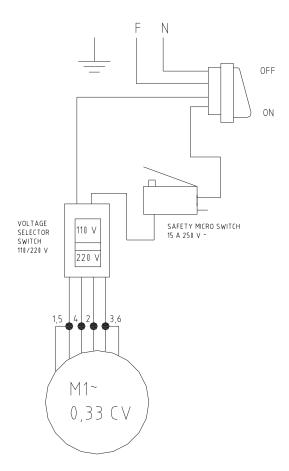
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5.2 ABI Electrical Diagram



1. INTRODUCTION

1.1 Safety

If not properly used Tenderizer Mod ABI is a machine potentially DANGEROUS. Never introduce the hand inside the Protection Lid, No.05 (Pic.04) through its upper opening, mainly when the machine is running, because serious damage may arise for the operator. Any movable part, to clean it or for other maintenance purpose, shall only be withdrawn by skilled and duly trained people, following the below instructions, to avoid accidents.

1.1.1 Keep the machine unplugged when needing to remove any movable part, when cleaning or for maintenance purposes.

1.1.2 Handle the Rollers No.03 (Pic.02) with care, for they have very sharp Blades. To withdraw them use the Rollers Extractor No.01(Pic.02).

1.1.3 Never use any kind of instruments to introduce the meat into the Protection Lid No.05(Pic.04) upper opening.

1.1.4 Never lift the Lid No.05(Pic.04) before the Rollers be surely still.

1.1.5 Never throw water directly on the machine . To clean it use a wet cloth .



1.2 Main Components

The Meat Tenderizer Mod. ABI is a table top machine suitable to process various different meat kinds . The meat shall not be frozen and shall be without bones .

The machine different parts are mainly manufactured using high grade materials, as polished aluminum, stainless steel and long life non toxic plastic material.

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Figura -02

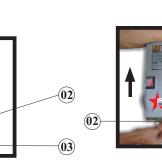
03

(01)

Table – 02

Problems	Causes	Solutions
* The product stuck into the machine.	* Combs have not been placed.	* Place the Combs.
	* Electricity shortage.	* Check if the plug is on its socket.
* Rollers stop during operation.	* Worm and crown excessively worn out.	* Call Technical Assistance.
	* Plug or Cord with bad contact.	* Check the cord and the plug for contact failure.
	* Machine is unplugged.	* Plug in the machine cord.
* Smoke or burnt smell.	* Problem with the Contactor.	* Call Technical Assistance.
* Rollers delay to turn.	* Problem with the electric motor.	* Call Technical Assistance.
* Abnormal noises.	* Starting capacitor has failed.	* Fit the Rollers into the right position.
	* Rollers out of its right position.	* Call Technical Assistance.

02- Combs 03- Rollers support



01- Protection Lid





01 - Rollers Extractor 02 - Handle 03 - Rollers

Figura -03



01 - Combs 02 - Rollers Support



- 01 Rollers Support 02 Cabinet

03 - Base

04 - ON/OFF Switch

05 - Protection Lid

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

Check level of oil, if any . DO NOT place 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 Pull the plug off its socket when any emergency arises .

4.6.2 Advice

Electrical or mechanical maintenance has to be undertaken by qualified personal.

Person in charge has to be sure that the machine is under TOTAL SAFETY conditions when working.

5. Analysis and Problems Solving

5.1 Problem, causes and solutions

The Tenderizers Mod ABI were designed to operate with the need of minimum maintenance but the natural wearing caused by long use of the equipment may occasionally cause some malfunctions.

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

1.3 Technical Characteristics

Table -01

Characteristic	Unidad	ABI
Average Production	[kg/h]	up to 400
Voltage	[V]	110 or 220
Frequency	[Hz]	50 or 60 (*)
Power Rating	[HP]	0,33
Consumption	[kW/h]	0,26
Height	[mm]	415
Width	[mm]	395
Depth	[mm]	195
Net weight	[kg]	17
Gross weight	[kg]	19

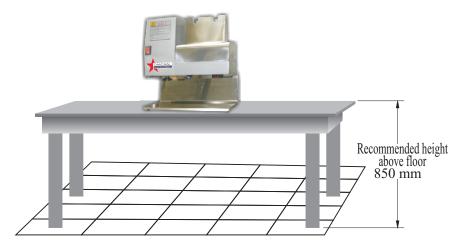
(*) Observation : Frequency will be the one indicated on motor label

2. INSTALLATION and PRE OPERATION

2.1 Installation

The Tenderizer should be placed on a leveled working surface , preferably 850 mm high above floor (Pic. 05). Control the electricity source voltage , it shall be the same as the Tenderizer motor voltage . To adjust the machine voltage to the network voltage use the voltage change switch , placed on the opposite ON/OFF switch side .

The cord has a plug with two round pins and a grounding wire . The three shall be well connected before to switch ON the machine .

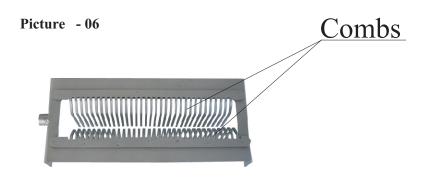


2.2 Pre Operation

Be sure the Tenderizer is stable . Before to start operation wash the removable parts with hot water and neutral soap , rinse and dry before to replace them into the machine .

The Combs (Pic. 06) avoid the product to wind up on the Rollers No. 03 (Pic.02) and therefore help the exit of the product . To withdraw the Rollers No. 03 (Pic.02) with safety, use the Roller Extractor No 01 (Pic.02) .

IMPORTANT Always use the Combs (Pic. 06) when processing any kind of meat.



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.

Oil reservoirs if any have to be full up to the required level as indicated. Check level and add oil if necessary.

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, the chains, nor the gears.

4.3.2 Precautions

Check if motors, belts, chains or gears and the turning or sliding parts of the machine produce abnormal noises .

Check the tension of the belts and chains and replace the set when belt, chain or gears 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 Advices

conditions.

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 touch turning parts with your hands or in any other way.

NEVER operate machine without all original safety devices under perfect

2.3 How to Introduce the Meat

4.1.3 Advices

In case of power shortage, immediately turn the machine OFF.

Use recommended or equivalent lubricants, oils or greases.

Avoid mechanical shocks as they may cause failures or malfunction.

Avoid penetration of water, dirt or dust into mechanical or electrical components of the machine.

DO NOT MODIFY original characteristics of the machine.

DO NOT REMOVE, TEAR OFF OR MACULATE any safety or identification labels. If any labels has been removed or is no longer legible contact your nearest dealer for replacement.

4.2 Safety Procedures and Notes Before Turning Machine ON

IMPORTANT

Carefully read ALL INSTRUCTIONS of this manual before turning the machine ON. Be sure to be familiar with the set and that you have well understood all 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 insulation could cause electrical shocks as well as electrical leak. Before use check 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 have to be very clear to the operator.

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

ATTENTION Under no circumstances use any kind of instrument to push the meat inside the Protection Lid No. 01(Pic.07) .

The Model ABI Tenderizer is a LOW ROTATION machine. Its operation is simple, however it does need the complete operator attention to avoid any accident. Place the meat to be processed inside the Protection Lid opening No. 01 (Pic. 07), and freely, let it get inside the machine.

(01)

Tenderizes with 20cm length (about 8" and 1,3cm thickness (about 1/2")

Picture – 07



3. OPERATION

3.1 Starting

The Protection Lid No.01 (Pic.07) SHALL be duly fitted . To start the machine press the ON/OFF Switch No.04 (Pic.04) placed on the cabinet .

3.2 Removing and replacing the Rollers and the Combs

IMPORTANT

When any removable part of the machine has to be removed, switch OFF the machine and unplug it. Wait the Rollers No.03(Pic.02) to be completely still before to lift the Protection Lid No. 01(Pic.07).

To remove the Rollers is a simple task, however it does require full attention from the operator to avoid possible accidents. With a the machine completely still : To remove the Rollers and the Combs

- Lift the Protection Lid No 01.(Pic.07).

- To withdraw the Combs, just lift them, but watch their correct position (Pic. 03). Then turn the Handle No.02 (Pic.02) until the Driving Shaft No.01(Pic.09) keys are on the vertical position, and with the help of the Rollers Extractor No. 01 (Pic. 02) withdraw the Rollers No.02(Pic.08).

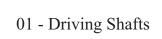
To replace the Rollers and the Combs

- Turn the Handle No. 02 (Pic.02) until the Driving Shaft No.01 /(Pic.09) keys are on the vertical position . Then with the Rollers Extractor.

- No.01 (Pic.02) help, fit the Rollers No.02 (Pic.08) into their keys and bring them to the bottom of their casing. After, replace the Combs No.01 (Pic.08), and be careful to watch their right position to fit perfectly the Protection Lid No.01 (Pic.07). Place the Combs No.01 (Pic.08) in between the Rollers N.02 (Pic.08), then replace the Protection Lid N.01 (Pic.07).

Picture - 09

01 - Combs 02 - Rollers



3.3 Cleaning

IMPORTANT Never proceed to clean the machine when connected to the electric power source , always unplug it . Before to lift the Protection Lid No.01(Pic.07) , wait the Rollers N.02(Pic.08) to be completely still .

All the machine parts presumably going to contact the meat must be cleaned with warm water and neutral soap, rinse and dried before to be replaced in the machine. The remaining machine parts would be cleaned with a wet cloth.

3.3.1 Wit the machine switched OFF and unplugged withdraw the Protection Lid No.01 (Pic.07) and the Combs No. 01 (Pic.08). Turn the Handle No.02 (Pic.02) until the keys are in the vertical position. Using the Rollers Extractor No.01 (Pic. 02) lift the Rollers No.03 (Pic. 02) having particular care with the sharp rollers knives.

IMPORTANT

Observe the position of the Rollers before to remove them , and do care to replace them into their original position .

3.3.2 Wash all the parts with hot water and neutral soap , rinse and dry before to replace them into the machine .

 $3.3.3 \ \text{Never use hard objects as}, for instance: knives, forks or metal sticks to clean meat pieces that could be found stuck to the Rollers. Use a nylon brush to remove them and to clean the Rollers blades.$

4. General Safety Practices

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 manual commands such as switches, buttons, 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 fatal 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 used when necessary. Before any kind of maintenance, physically remove the plug from its 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 to give any manual command (switch, buttons, turn keys or lever) be sure the command is the correct one. Check this manual for further details if necessary.

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.