INSTRUCTION MANUAL

MEAT TENDERIZER

**MODEL**

# ABN-HD

689222 - ENGLISH
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- 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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## 1. Introduction

### 1.1 Safety

If not properly used Tenderizer Mod ABN-HD is a machine potentially DANGEROUS. Never introduce the hand inside the Protection Lid , No.01 ( 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withdrawn by skilled and duly trained people , following the below instructions , to avoid accidents: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.02 (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.01(Pic.04) upper opening.
1.1.4 Never lift the Lid No.01(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.

**⚠ 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.**

**⚠ 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.**

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

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

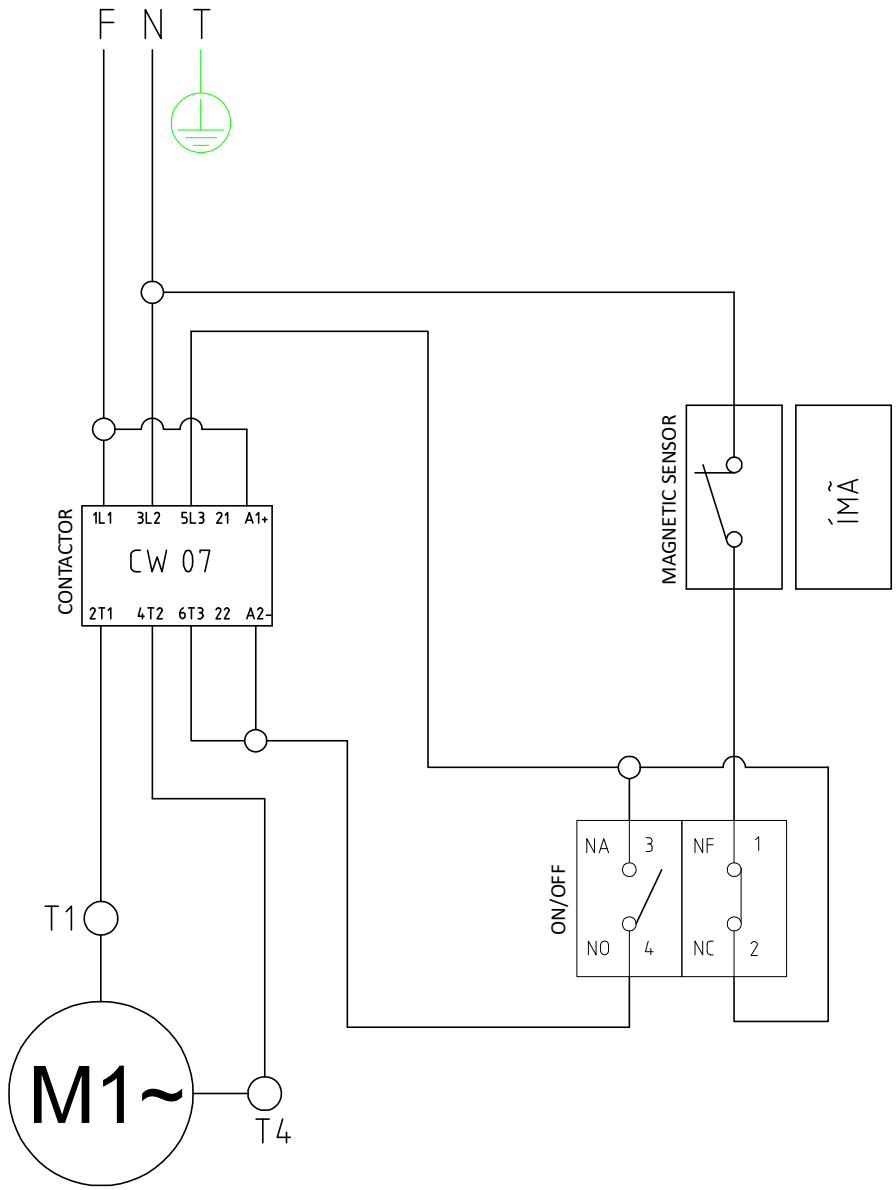
**⚠ Never spray water directly on to the equipment.**

### 1.2 Main Components

The Meat Tenderizer Model ABN-HD has a Safety Switch No.01(Pic.03) to switch OFF the machine as soon as its Protection Lid No. 01(Pic.04) is lifted.
The Meat Tenderizer 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.

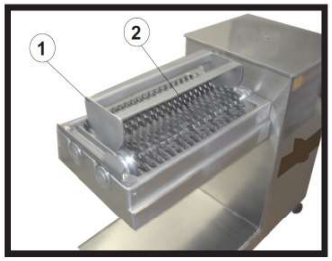
**PICTURE 01**

## 6. ELECTRIC DIAGRAM



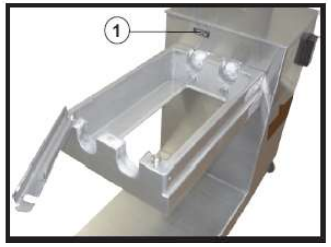



**PICTURE 02**

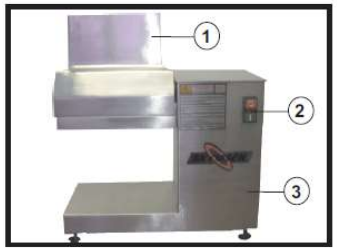



1- Protection Lid
2- Rollers support
3- Motor Cabinet Cover
4- Motor Cabinet
4- ON/OFF Switch

**Picture -03**




**Picture -04**




### 1.3 Technical Characteristics

**TABLE 01**

| CHARACTERISTICS | UNIT | ABN-HD |
|---|---|---|
| Average Production | kg/h | up to 400 |
| Voltage | V | 230 |
| Frequency | Hz | 50 |
| Power Rating | Hp | 0,5 |
| Consumption | kw/h | 0,37 |
| Height | mm | 540 |
| Width | mm | 475 |
| Depth | mm | 240 |
| Net Weight | kg | 24,2 |
| Gross weight | kg | 27 |
| Oil Capacity | ml | 250 |

## 2. INSTALLATION AND PRE OPERATION

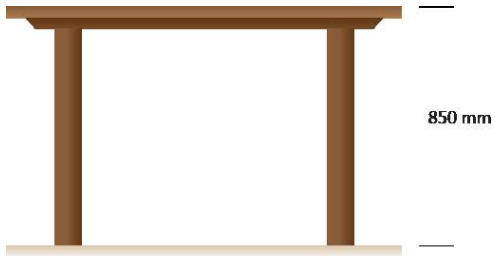
### 2.1 Installation

The Tenderizer should be placed on a leveled working surface , preferably 850 mm high above floor. Control the electricity source voltage , it shall be the same
as the Tenderizer motor voltage.

The cord plug, features two flat pins and one round pin ( grounding ). It is mandatory the three pins to be duly connected before to use the machine.

To move the Protection Cover No.01(Pic.01) just lift it . Lateral movements might damage the machine.
Before to lift the Protection Cover be assured the machine is completely still, and has the plug out of the power source socket .

**PICTURE 05**

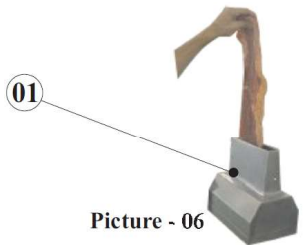



### 2.2 Pre Operation

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.
Check the oil level inside the head oil reservoir . Complete with oil up to the indicated height. Use oil UNITRON 140 or similar.

### 2.3 How to Introduce the Meat

The Model ABN-HD 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 , and freely , let it get inside the machine .
**Meat sizes up to 20 cm ( about 8 " ) and 2 cm thick ( about 4/5 " ).**




**Picture - 06**

## 3. OPERATION

### 3.1 Starting

⚠ **When any removable part of the machine has to be removed , switch OFF the machine and unplug it . Wait the Rollers No.01(Pic.12) to be completely still before to lift the |Protection Lid No. 01(Pic.04) .**

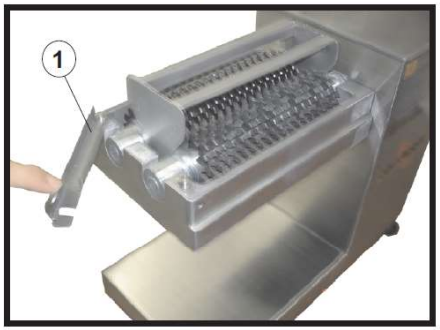
The Protection Lid No.01(Pic.04) SHALL be duly fitted . To start the machine press the ON/OFF Switch No.02(Pic.04) placed on the cabinet side . Model ABNHD has a safety switch that does not allow the machine to work without the Protection Lid No.01(Pic.04) .

### 3.2 Removing and replacing the Rollers

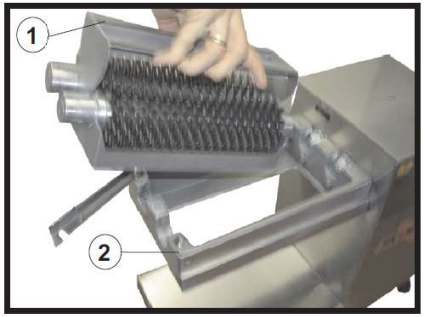
To remove the Rollers is a simple task , however it does require full attention from the operator to avoid possible accidents .
- Lift the Protection Lid No 01.(Pic.01) .
- Draw the Rollers key No.01/(Pic.07)
- Lift the Rollers Extractor No.01(Pic.08) , first the backside , bending it to come out from the Rollers Support No.02(Pic.08) , then place the Rollers Extractor No.01(Pic.09) on a leveled surface.
- Observe that each Roller has on its backside a figure indicating its right position into the Rollers Support (Pic. 09).
- Withdraw one Roller at a time (Pic.10/11).

**Obs. : To replace the Rollers follow the inverse procedure.**

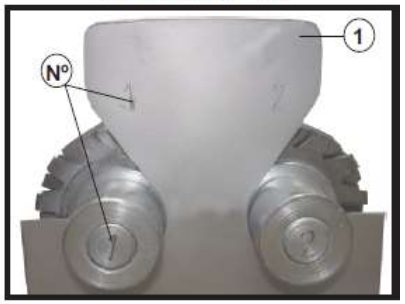
Picture -07



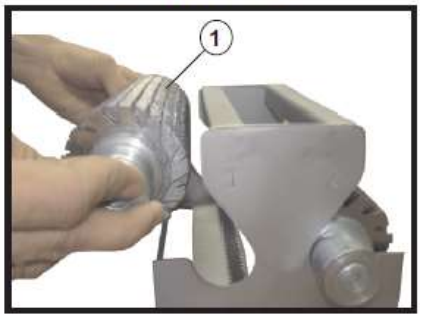

Picture -08




Picture -09




Picture -10






### 5.1.2 Lubrication

Periodically check the oil level inside the head oil tank ( Pic. 16 ) When necessary, complete the oil level up to the height shown at picture 16 Use UNITRON 140 oil or similar.
Oil replacement once a year , is recommended.
When it would be necessary to complete oil level or to replace the oil, follow the below instruction:
1- Unplug the machine from electric power source.
2- Using a screw driver remove the screw fixing the motor cabinet cover No. 01 ( Pic. 13) and remove the motor cabinet cover.
3- Using a screw driver remove the four screws No. 02 ( Pic. 14) fixing the head cover No.01 ( Pic. 14) and remove the head cover.
4- To take away the old oil, use an empty tube ( Pic 15 ) , place the pin inside the oil and press it intermittently to suck out the oil.
5- Replace the oil up to the level indicated at picture 16 .
6- To return to production , assemble the covers mentioned at position 2 and 3 following invert steps

Picture -13

Picture -14

Picture -15

Picture-16

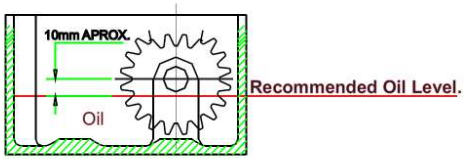


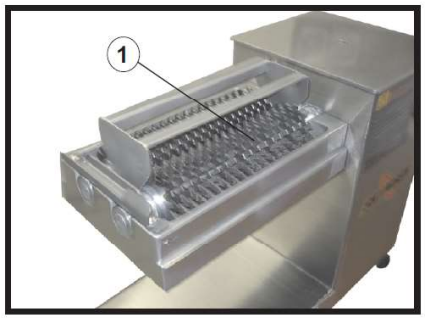
**TABLE 02**

| PROBLEMS | CAUSES | SOLUTIONS |
|---|---|---|
| * Rollers stop during operation | * Electricity shortage<br>* Worm and crown excessively worn out<br>* Plug or Cord with bad contact<br>* Machine is unplugged<br>* The Protection Lid is not well fitted | * Check if the plug is on its socket<br>* Call Technical Assistance<br>*Check the cord and the plug for contact failure<br>* Plug in the machine cord<br>* Correct the Protection Lid position |
| * Smoke or burnt smell | * Problem with the Contactor<br>* Problem with the electric motor | * Call technical Assistance.<br>* Call technical Assistance. |
| * Rollers delay to turn | * Starting capacitor has failed | * Call technical Assistance. |
| * Abnormal noises | *Faulty Bearings<br>* Empty Oil reservoir | * Call Technical Assistance<br>* Fill the Oil reservoir . See item 2.2. |



Picture -11

Picture -12




**3.3 Cleaning**

⚠ **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.04) , wait the Rollers N.02(Pic.02).**

3.3.1 Al the parts in contact with the meat shall be washed with hot water and neutral soap, rinse and dry them before to replace them into the machine . To clean the other parts of the machine use a wet cloth .

⚠ **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 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.

3.3.4 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.

⚠ **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

⚠ **If any item from the GENERAL SAFETY NOTIONS section is not applicable to your product, please disregard 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 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.

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

⚠ **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 .

#### 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

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 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. 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.

⚠ **Pull the plug off its socket when any emergency arises .**

### 4.7 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 Tenderizer Mod ABN-HD 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.