

OWNER'S MANUAL

# BAGUETTE MOLDER

## DOYON

### MODEL

### DM800



1255 Rue Principale, Linère, Qc. Canada G0M 1J0

**BAGUETTE MOULDER**  
**MODEL DM800**  
**TABLE OF CONTENTS**

CHAPTER 1 – RECEPTION OF THE MERCHANDISE . . . . .	3
– NAMEPLATE . . . . .	3
– AVERTISSEMENT . . . . .	4
CHAPTER 1.1 – GENERAL INFORMATION . . . . .	5
CHAPTER 2 – NAMEPLATE IDENTIFICATION	
2.1. – Nameplate description . . . . .	5
2.2. – Instruction manual . . . . .	5
2.3. – Generale description . . . . .	5
2.4. – Industriel use of machine. . . . .	5
CHAPTER 3 – TRANSPORTATION, STORAGE, MOUNTING, INSTALLATION	
3.1. – Transportation. . . . .	6
3.2. – Storage . . . . .	6
3.3. – Assembly and installation . . . . .	6
3.4. – Connecting and electrical . . . . .	7
CHAPTER 4 – MACHINE USAGE	
4.1 Machine control panel . . . . .	7
4.1.2 – Emergency stop . . . . .	7
4.1.3 – Rotation direction check . . . . .	7
3.1.4 – Placing the dough and setting thickness. . . . .	7
4.2. – Function analog control . . . . .	8
4.2.1 – Starting the machine . . . . .	8
4.2.2 – Stopping the machine . . . . .	8
4.2.3 – Resume work . . . . .	8
4.3. – Failure Detection and solving . . . . .	8
4.4. – Protection measures . . . . .	8
4.5. – Accessories and tools . . . . .	8
4.6. – Machine stability . . . . .	8

# **BAGUETTE MOULDER**

## **MODEL DM800**

### **TABLE OF CONTENTS**

CHAPTER 5 – Properties of the machine .....	9
5.1. – Mechanical properties .....	9
5.2. – Electrical properties .....	9
4.3. - Machine capacity .....	9
4.4. - System security .....	9
4.5. - Precaution with tools .....	9
4.6. - Precaution with belts .....	9
4.7. - Noise emission .....	9
4.8. - Radiation emission .....	9
4.9. - Life cycle of the product .....	9
CHAPTER 6 – MAINTENANCE .....	10
6.1. – Went the machine is new .....	10
6.2.1 – Machine cleaning .....	10
6.2.2 – Security syetem check .....	12
6.3. – Every six months .....	12
6.3.1 – Belts check .....	12
6.3.2 – Checking the condition of the conveyors .....	13
6.3.3 – Scrappers check .....	14
6.3.4 – Tunning and lubrication general check .....	14
6.3.5 – Machine fixation check .....	14
CHAPTER 7.1 – SECURITY INSTRUCTIONS	
7.2. – SPECIAL PRECAUSIONS .....	15
7.2.1 – Caution with the belts .....	15
7.2.2 – Electrical hazards .....	15
7.2.3 – Hygienic hazards .....	15
LIMITED WARRANTY .....	16

## CHAPTER 1

### CAUTION READ ALL INSTRUCTIONS

### IMPORTANT RECEPTION OF THE MERCHANDISE

Take care to verify that the received equipment is not damaged before signing the delivery receipt. If a damage or a lost part is noticed, write it clearly on the receipt. If it is noticed after the carrier has left, contact immediately the freight company in order that they do their inspection.

We do not assume the responsibility for damages or losses that may occur during transportation.

For your safety, this equipment has been verified by qualified technicians and carefully crated before shipment. The freight company assumes full responsibility concerning the delivery in good condition of the equipment in accepting to transport it.

### NAMEPLATE

Each machine has a nameplate fixed on the machine, with the general characteristics of the machine.

1. Serial number
2. Model
3. Date
4. Phase
5. Amperage
6. Voltage
7. Frequency

## **IMPORTANT SAFEGUARDS**

### **Read all instructions.**

**To protect against electrical shock, do not immerse cord, plugs, portable appliance in water or other liquids.**

**Remove plug from the outlet when the appliance is not in use, before putting on or taking off parts, and before cleaning.**

**Do not use outdoors.**

**Do not let cord hang over edge of table or counter or touch hot surfaces.**

**Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions or is dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair or electrical or mechanical adjustment.**

**The use of accessory attachments not recommended by the appliance manufacturer may cause injuries.**

**Do not place on or near a hot gas or electric burner or in a heated oven.**

**Always check if the control switch is OFF before plugging cord into wall outlet. To disconnect, turn the control switch to OFF, then remove plug from wall outlet.**

**Do not use appliance for other than intended use.**

**Avoid contacting moving parts.**

**Save these instructions.**

# CHAPTER 1

## GENERAL INFORMATION ABOUT THE MACHINE

**The machine's manual must always be kept close to the machine.**

- Before switching on and using the machine, read this manual carefully, especially the safety instructions.
- This manual must be kept in a safe place and be accessible to everyone that use the machine.
- Always re-install the plastic pieces when you replace the motor and never connect the grounded wire for the motor.

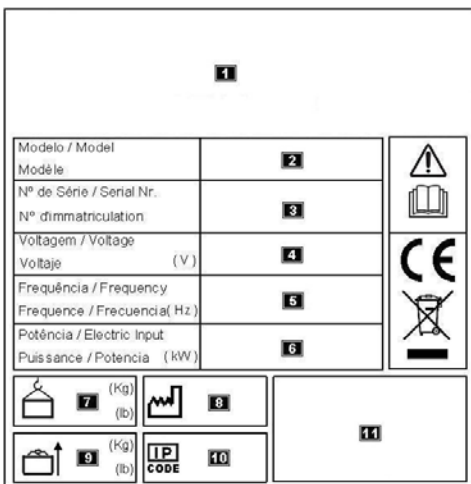
The manufacturer is not responsible for the machine's damages in the following situations:

- Bad use of the machine.
- Problems with electric power.
- Non-authorized changes.
- Deficient upkeep.
- Use of unoriginal parts and products of the machines.
- Not following this manual.
- Repairs made by unauthorized technicians.

**CHAPTER 2  
NAMEPLATE AND INDUSTRIAL USE**

**2.1.- MACHINE NAMEPLATE**

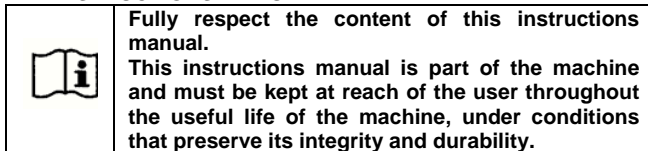
This machine has a nameplate describing properties, fixed on the outer part on which the general properties are described:



**Image Caption:**

Area	Purpose
1	Identification of the manufacturer including full address
2	Model
3	Serial Number
4	Voltage
5	Frequency
6	Power
7	Weight of the machine
8	Year and month of fabrication
9	Maximum load lifting (if applicable)
10	IP protection degree (unmarked for IPx0)
11	Fabrication country

**2.2.- INSTRUCTIONS MANUAL**



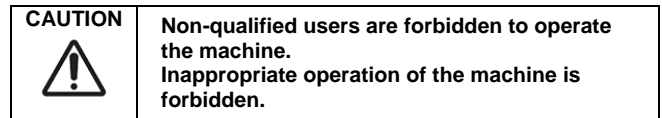
**Fully respect the content of this instructions manual.**  
**This instructions manual is part of the machine and must be kept at reach of the user throughout the useful life of the machine, under conditions that preserve its integrity and durability.**

**2.3.- GENERAL DESCRIPTION**

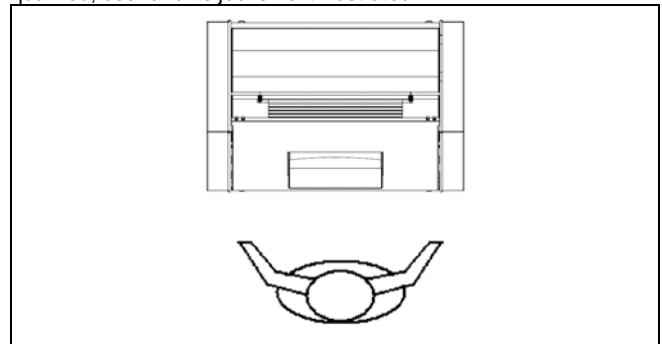
Thank you for choosing or using this equipment. It is our goal to provide reliable, safe and functional equipments, qualitatively adequate to the most demanding mechanical, electrical, ergonomic and food norms. Furthermore, several (electrical, mechanical, among other) tests are developed so as to assure the final quality of the supplied equipments.

Technically, this equipment may be defined as follows: Equipment composed of a steel structure, a series of mechanical devices that, when electrically triggered, transform food dough. Based on its manufacturing and operating technological level, this transformation of products happens without the need for human intervention. Thus, it is easier to obtain a uniform final product – considering the defined parameters and corresponding specifications.

**2.4.- INDUSTRIAL USE OF THE MACHINE**



This machine has been designed to be operated in the transformation of bakery and pastry dough. This machine has been designed to be operated by only one, duly qualified, user and its job is next illustrated.



The intervention of the machine operator consists of the following:  
 Placing the dough to be crushing on the table;  
 Activating the handle to adjust the opening of the rollers;  
 Activate the conveyor adjustment handle;  
 The qualification level for a job may be achieved either through specific training on this machine and production processes, or through duly proved know-how experience. The qualification of the operator must be proved when requested.  
 Throughout the entire manual the operation of the machine is regarded on an 8 hour daily schedule, notwithstanding the machine not working for uninterrupted 8 hours. When the machine is used in a different period, considerations must be adjusted to the proportion of that use.  
 The manufacturer may not be held responsible for any damage to the machine, people, property or animals, resulting from an inappropriate use.

**It is to be considered an inappropriate use of the machine:**  
 Using the machine under inadequate environmental, operational and physical conditions;  
 Using the machine disregarding the good practice of the art of bakery and pastry;  
 The use of the machine by a non-qualified operator;  
 Transforming products for which it has not been designed;  
 Transforming dough with insufficient hydration;  
 Set the rolls for a sudden reduction of the thickness of the dough;  
 Operating the machine without its complete installation;  
 Powering energy different to that specified;  
 Altering performances;  
 Removing or changing security systems;  
 Disrespecting the current laws in the country or the contents of this manual.

**CHAPTER 3  
TRANSPORTATION, STORAGE, MOUNTING, INSTALLATION  
AND CONNECTING**

The incorrect transportation, storage, mounting, installation or connection of this machine by the client or representative may cause material, people, property or animal damage, the manufacturer not being held responsible for this.

**3.1.- TRANSPORTATION**

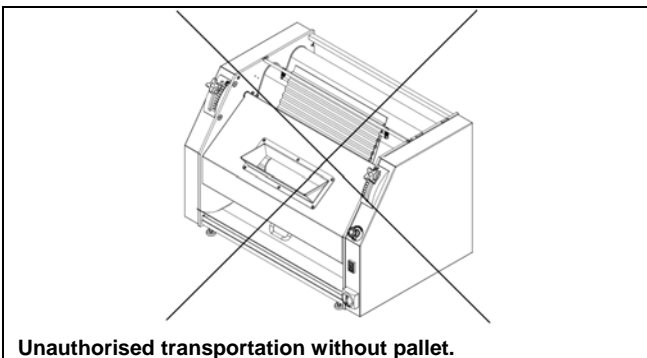
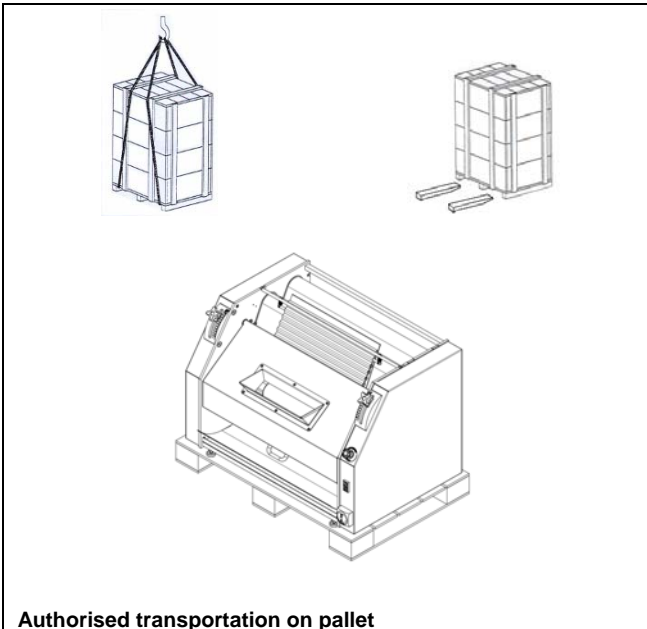
Always use an adequate transportation device regarding the weight on the nameplate.

Always act in compliance with the current laws in your country. The ignorance of such laws does not justify incompliance.

The machine must be transported according to the following images, with a freight elevator, adequate cables, ropes, chains or hooks.

In case of manual handling the risk of the machine over-sliding or sliding in an unexpected direction, must be taken into account.

Regularly check the package for damage subsequent to transportation. In case of damage suspicion, please contact the supplier for examination or record the event so as to later describe the situation.



**3.2.- STORAGE**

Always use transportation equipment for storage that is adequate to the weight on the nameplate of this machine. The storage site has to hold the same weight, thus ground storage is recommendable, avoiding shelves or elevated storage reduces the risk of machine fall. There is no need for it to be fixed to the ground, however, the pavement must be flat and must not be slippery. The pavement should be free of humidity so as to avoid oxidation on painted chassis machines.

During storage, it is mandatory that the machine is disconnected from electrical power supply, but under not circumstances should it be stored subject to bad weather conditions, it must be kept in conditions similar to the work place.

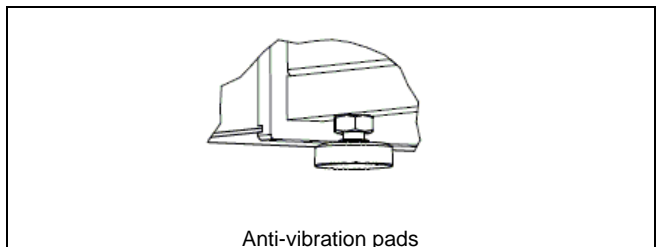
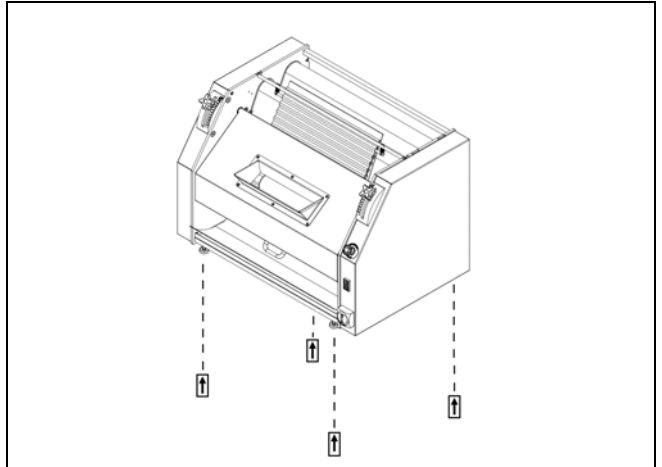
**3.3.- ASSEMBLING AND INSTALLATION**

<p><b>CAUTION</b></p>	<p><b>During assembling and installation at the work place, make sure the power supply cable is disconnected from the socket. This should be performed by duly accredited personnel by the manufacturer.</b></p>
-----------------------	--

By the operating place of the machine, remove all packaging, such as cardboard, plastic, pallets, protection wood, film and others.

At the exact work place, the machine must be levelled by mounting the anti-vibration pads as in the following picture.

All the supports of this machine must be adjusted to the floor.



<p><b>CAUTION</b></p>	<p><b>Never run the machine without its complete installation.</b></p>
-----------------------	--

To have the correct working position, the machine must be installed on top of a work station.


The work station must be able to support the strain from the weight of the machine and the load for which it has been planned, in accordance with the characteristics label.

The pavement must be made of concrete, able to endure the weight of the machine and the load for which it is set, in compliance with the properties on the nameplate of the machine. The pavement must be of a single flat ballast, not containing amendments between the supports of the machine and having a maximum inclination of 0,5%.

Anti-vibratory supports must be readjusted, whenever necessary. Make sure no sand or other residue remain between the supports of the machine and the pavement so as to avoid false grips, oscillation or inconvenient noises.



**3.4.- CONNECTING AND ELECTRICAL SUPPLY**

<p><b>CAUTION</b></p> 	<p>Any intervention to the equipment must be made after the electrical supply cable has been disconnected, however, when working without power is not possible for technical reasons, duly precautions to reduce the risk of electrical shocks and short-circuits must be taken.</p>
---	--

This intervention must be performed by a duly accredited technician. Electrical connection must be made by means of a plug or junction box connectors, from a "neutral TT" line, with a 300mA differential protection.

The electrical power available must comply with the specifications of the properties on the nameplate of the machine.

Mending supply cables is not allowed.

Power strips for phase reversal, 3D power sockets or other adaptation systems are not allowed.

More than one machine connected to the same power source (socket or derivation) is not allowed.

It is necessary to perform an equipotential bonding between machines that share a ferruled ground wire supplementary connection, of a section of at least 6 mm<sup>2</sup>, connected to the exterior screw of this machine identified by the symbol ⊕.


**CHAPTER 4  
MACHINE USAGE**

**3.1.- MACHINE CONTROL PANEL**

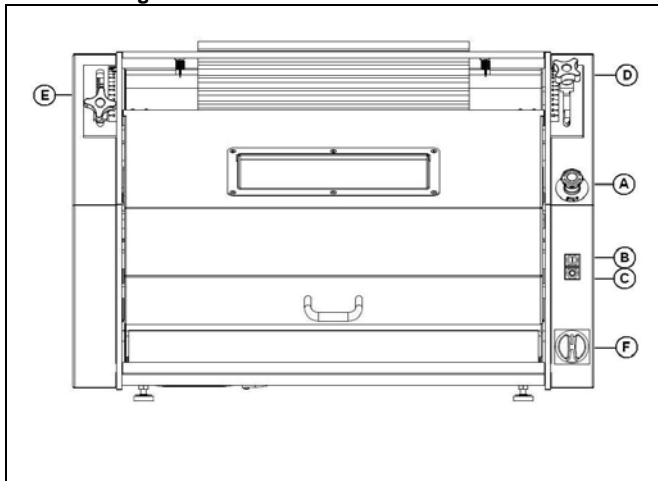
This machine is equipped with a technologically developed control system which controls engines and other electrical equipments.

For the machine to run, the following conditions must be respected:



Closed lid; emergency button unlocked and main switch on.

	<p><b>ATTENTION:</b> Control must be performed with a finger. The use of hard or sharp objects may cause unrepairable damage.</p>
---	---

**4.1.1 – Analog control**



**4.1.2 – Emergency stop**

<p><b>CAUTION</b></p> 	<p>In case of emergency press the emergency button.</p>	
---	---	---

The emergency button must be pressed only when there is the need to stop the machine abruptly, in case of suspicion of damage to the machine, hazard to people's, property's or animals' safety.

Do not use this button to stop work under regular conditions, use the stop button C.

**4.1.3 – Rotation direction check**

This procedure applies only to machines which are powered by a three-phase electrical system.

Assure there is nothing on the rollers.

Power the table in compliance with the specifications on the nameplate of the machine;

Turn the main switch on;

Make sure the lid is closed and the emergency button is not activated.

Press button B;

The rollers must turn simultaneously;

The rotation direction of the rollers must pull the dough;

Should this not happen, stop the machine on button C.

Turn the main switch F off.


Unplug the machine from the power supply and switch two phases between themselves.

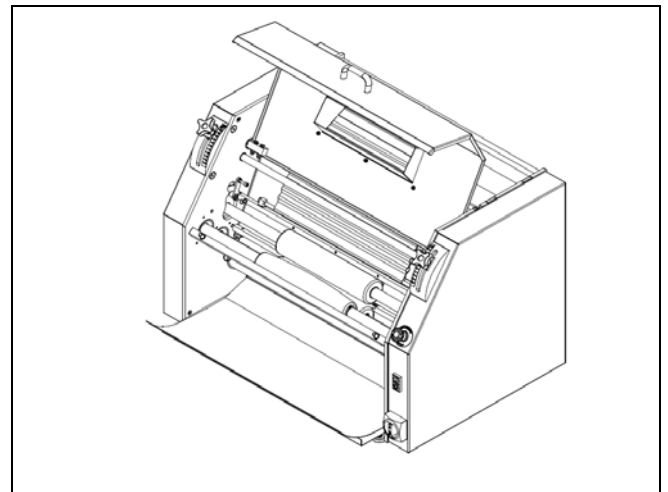
Switch it all on again, for this way the machine shall turn in the correct direction.

**4.1.4 – Placing the dough and setting thickness**

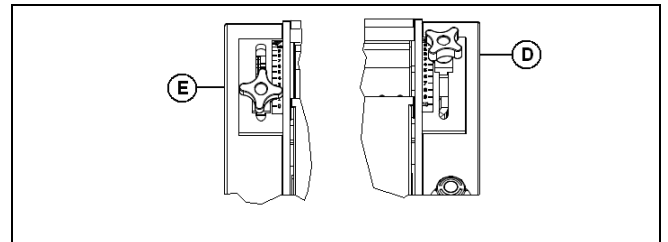
Perform a cleaning operation according to the chapter on daily maintenance in this manual;

The adequate type of dough and the placing position are two very important elements in the fabrication process, as on these may depend on the performance of the machine. Good practice must be respected so as not to overwhelm the machine


<p><b>CAUTION</b></p> 	<p>Caution: lid closing offers a residual risk of upper body limbs jam. Assure there is nothing stopping the closing of each lid.</p>
---	---



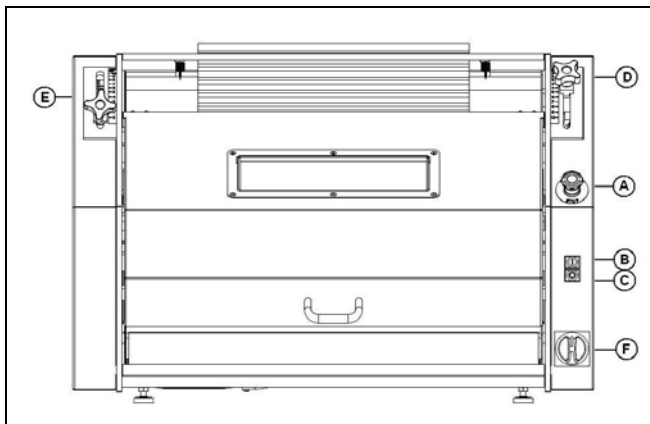
Always set handles D and E to adjust of the opening of the rollers and the conveyor opening adjustments according to the hydration percentage and the configuration of the dough. It must always be flattened to avoid it getting stuck on the lid and overwhelm the machine.



Start the machine as described ahead and only later place the dough.

<p><b>CAUTION</b></p> 	<p>Never place dough on the rollers while the machine is stopped. The start of the machine while loaded can cause unrepairable damage.</p>
---	--

#### 4.2.- FUNCTIONING – ANALOG CONTROL



**Image caption:**

Control	Function
A	Emergency stop button
B	Machine start button
C	Machine Stop button
D	Opening adjustment of the rollers handle
E	Conveyor opening adjustment handle
F	Main switch

##### 4.2.1– Starting the machine

It is necessary for the protection lid to be closed and the emergency button inactivated;  
Turn main switch F on;  
Press button B;  
This procedure will initiate the rollers will start to turn.

##### 4.2.2 – Stopping the machine

One of the following actions is necessary:  
Open the lid;  
Press the lid;  
Press button C.

##### 4.2.3 – Resuming work

If necessary close the lid;  
Press button B.

#### 3.3.- FAILURE DETECTION AND SOLVING

Possible failure – detection	Probable cause	Possible solution
The control does not offer any signal	Non-powered machine	Reconnect to energy supply source
	Main switch off	Turn on main switch
	Jammed emergency button	Turn to unjam button
	Damaged control buttons	Request technical support that is accredited by the manufacturer.
	Other electric failure	Request technical support that is accredited by the manufacturer.
A function of the control does not work	A component is damaged	Replace component
	Other electric failure	Request technical support that is accredited by the manufacturer.
The machine works, lacks power and makes a strange noise	Mechanical part splint	
	Three-phase engines working in two phases.	Reestablish electrical connection
	The belts slide	Stretch belts

All functions are operating, however, the rollers do not move	Damaged engine or the belts have broken	Request technical support that is accredited by the manufacturer.
“Squeaking” type of noise	Damaged roller or equipment lacking lubrication	
The chassis wiggles too much	The screws that fix it to the pavement are loose	Tighten stabilising screws
The machine operates according to control, the movements are blocked and the noise is loud	Mechanical equipment has been damaged, or the rollers are being held by an alien object.	Check rollers and, if necessary, request technical support that is accredited by the manufacturer.
Control is torn or punctured	Use of sharp or cutting objects	Replace control
Dirty roller	Dirty or worn-out scrapper	Clean and, if necessary, request technical support that is accredited by the manufacturer.
Paint job oxidation	Abrasive environment or use of inadequate products or cleaning methods.	Request technical support that is accredited by the manufacturer.
Other non-described failure	Unknown	

#### 4.4.- PROTECTION MEASURES

The user must comply with all the necessary protection measures that apply. Thus, possible dust must be prevented by using a work overall and avoid dough contamination by protecting all capillary body parts.

#### 4.5.- ACCESSORIES AND TOOLS

This machine does not need accessories or tools for its usage or assembling.

#### 4.6.- MACHINE STABILITY

Conditions under which the machine complies with the stability requisite:

Phases	Conditions
Transportation and mounting	According to the specific information in the chapter on transportation, mounting, installation and connection within this manual.
Usage	According to specific information on assembling in this manual According to specific information in the chapter on maintenance.
Dismounting	On dismounting operations it is mandatory that the machine is on work position.
Out of service	When out of service, the machine must be in working position. The pavement must not be sloping or slippery. The machine does not need to be screwed to the floor.
During testing	When testing load the above described is applicable.
During possible failures	In case of power failure or other failure while dough is on the machine, it must be manually removed or power to be re-established

## CHAPTER 5

### PROPERTIES OF THE MACHINE

#### 5.1.- MECHANICAL PROPERTIES

The structure has standard or special order measures, to match its purpose.

Made of steel, standard physical-chemical or special order characteristics.

The materials that are in straight contact with the dough do not offer any hazard of contamination or change of its properties.

Mechanical transmissions are performed by analogical control no speed variation belts.

#### 5.2.- ELECTRICAL PROPERTIES

This machine has been manufactured according to characteristics on the nameplate.

Check annex to this manual for the electrical scheme.

The electrical system has been tested according to the applicable legislation and the test record is part of this manual.

Only Technical Support that is accredited by the manufacturer is qualified to work the electrical part. All necessary precautions must always be taken so as to reduce fire, electrical shocks and personal damage hazard, always in compliance with the following norms:

1. Stopping the machine.
2. Turning off main switch.
3. Disconnecting power cable.
4. Performing the necessary maintenance or repairing operations and only then,
5. Re-switching the machine to the power supply.

#### 5.3.- MACHINE CAPACITY

The maximum capacity is specified in the machine's commercial documentation.

#### 5.4.- SECURITY SYSTEM

The potentially most dangerous part of the machine is the rollers area, however, the user is not exposed to hazard on accounts for the solutions incorporated in the equipment:

- The safety lid must be closed for the machine to operate;
- When the safety lid is open, the movement immediately stops;
- When the safety lid is pressed, the movement immediately stops;
- The general outer protection index of the machine is IP20 or greater if by special order.
- Protection lids or other security measure can only be removed by using tools.

If any security system component is noticed to be inoperative, turn off the main switch and call the manufacturer on the phone for technical support.

#### CAUTION



For your safety, respect this manual and the signs on the machine,



#### 5.5.- PRECAUTION WITH TOOLS

This machine does not need accessories or tools for its usage or assembling.

#### 5.6.- PRECAUTION WITH BELTS

The user does not need to have straight access to the belts area, as it is not part of the user's regular work. This area is protected by rigid screwed lids.

#### 5.7.- NOISE EMISSION

The use of specific manufacturing techniques sustains an average sound pressure, considered in A, lower than 70dB, in compliance with ISO directive 3744: "Acoustic. Determination of sound power

levels of noise sources using sound pressure. Engineering method in an essentially free field over a reflecting plane."

#### 5.8.- RADIATION EMISSION

The machine does not produce any sort of radiation, including ionizing and non-ionizing radiations that may hazard the user's or exposed people's health, including cases involving active or non-active implanted medical devices.

#### 5.9.- LIFE CYCLE OF THE PRODUCT

#### CAUTION



Do not place debris of the components of the machine together with domestic waste.

During the life cycle of the product, whether it is an inspection operation, maintenance or disposal of this machine, the manufacturer is responsible for the treatment of any piece, component or material at any phase. The life cycle management must always be made by the manufacturer, the only to be held responsible for this management if duly informed for it.

This management firstly considers the possible repair and later reuse of any piece, component or material, however, should that not be possible, redirection to duly accredited residue management must be done, always keeping recycling as a priority. Taking this into consideration, the manufacturer shall deliver into the market highly recyclable equipment.

Directives of different countries must always be taken into consideration, each case having to be regarded separately.



This equipment has the recycling symbol. This means all residues must be separated per type and deposited in an adequate place for residue collection never included in domestic waste.

This attitude is environmentally friendly and beneficial to all in present and coming generations.

**CHAPTER 6  
MAINTENANCE**

**CAUTION**



Turn off the main switch and power cable before each cleaning or maintenance operation.

Whenever potentially dangerous operations are performed, such as mechanic tunings, maintenance, dismantling, electrical components replacement, mechanical or other type, the user must assure the electrical power cable is correctly unplugged. The internal mechanical components of the machine may eventually offer some mechanical residual hazard. To handle these components wear adequate protection gloves.

**CAUTION**



Do not run the machine until all lids, security devices and protection have been set.

In case of a request to the manufacturer, please offer the information on the nameplate of the machine. Check the annex for the repairing pieces or maintenance applicable to this machine.

**6.1.- WHEN THE MACHINE IS NEW**

Proceed to a cleaning operation, as described in the daily cleaning topic of this manual.

Even after the cleaning, it is convenient to test the functioning before starting manufacturing, using ingredients that are not to be consumed by people. Thus, packaging, transportation and installation residues can be removed.

**6.2.- EVERYDAY**

**6.2.1.- Machine cleaning**

The machine cleaning frequency must be adjusted according to the work hours and the severity of the product. Following is a suggested cleaning frequency table according to the work load:

Number of 8 hour shifts	Cleaning frequency within 24 hours
1	One cleaning procedure every 24 hours
2	One cleaning procedure every 8 hours
3	

The machine must be cleaned after operating, on the scrapers and on the table on which the dough lands. On these areas, a diluted disinfectant recommended by the manufacturer must be used, followed by abundant rinsing and drying with an absorbent paper or dry cloth.

The water temperature must range between 55°C and 60°C.

**CAUTION**

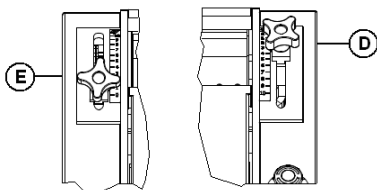


Do not use knives, sandpaper, metallic objects, abrasive, toxic or solvent products, or any other sort that may damage the surface or leave residue that may result in product contamination. Do not use jets of water to clean the machine.

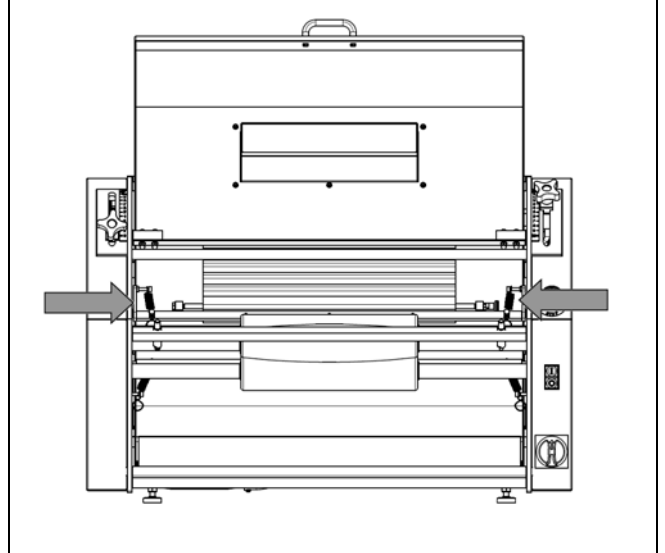
On the lid and outer parts of the machine, a vacuum cleaner for dough and flour residue can be used. Next, a slightly wetted, with diluted disinfectant, cloth or soft sponge may be used, taking care not to cause dripping. In the end proceed to the drying by using dry absorbent paper or cloth.

**Top scraper – disassembly procedure:**

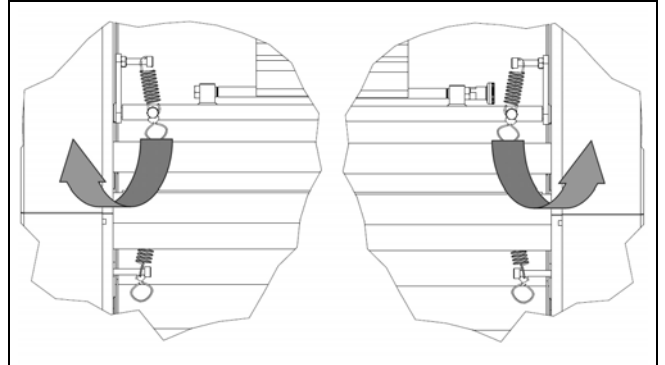
Completely open the rollers on command D.



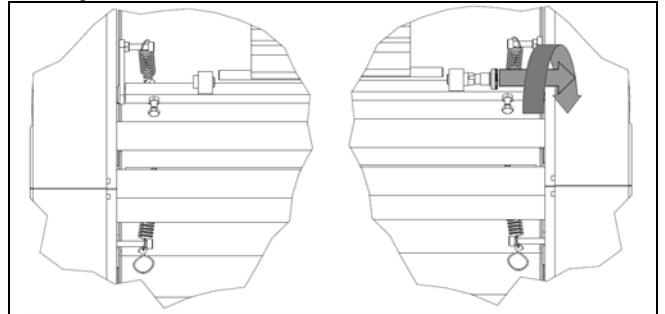
Access is obtained through the machine's front lid.



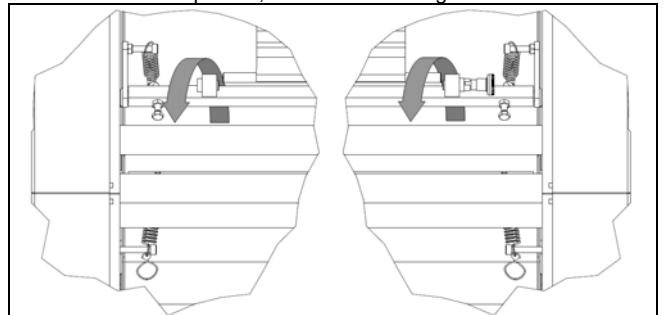
Pull down and release the end of the left and right springs, shown in the figure.



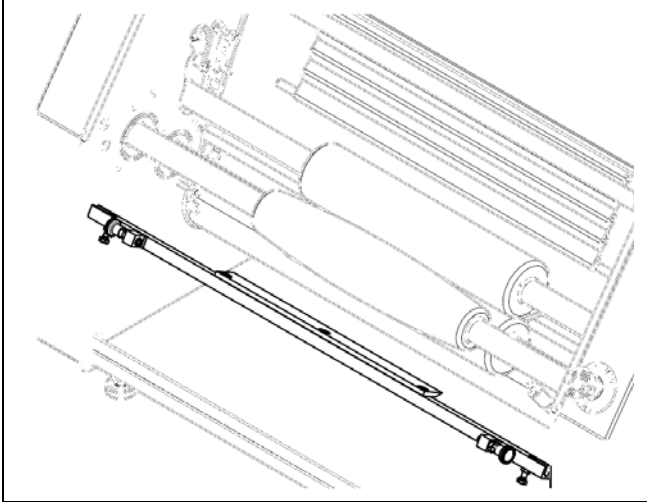
Pull and turn the lock on the left and the lock on the right, as shown in the figure.



Turn the entire scraper set, as shown in the figure.



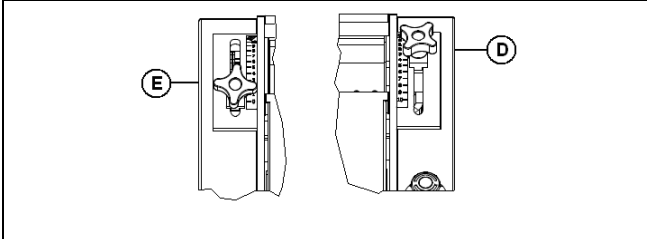
Remove the entire scraper set, as shown in the figure.



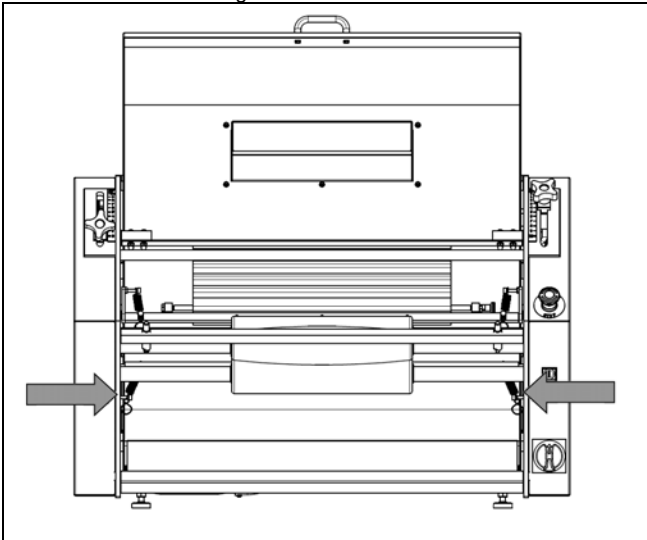
Once cleaned, assemble the scraper set on the machine in the reverse order of the procedure described for dismantling.

**Lower scraper – dismantling procedure:**

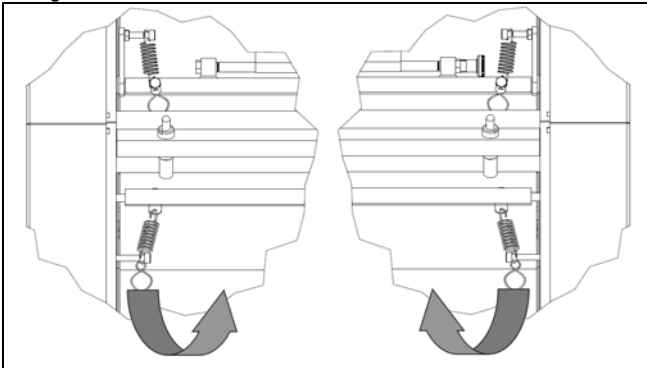
Completely open the rollers on command D.



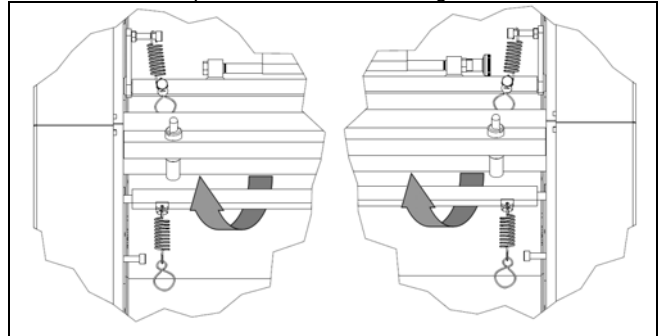
Access is obtained through the machine's front cover.



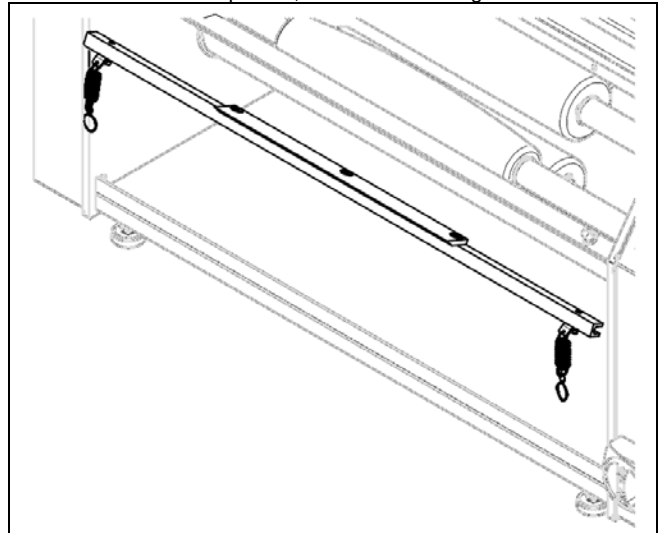
Pull down and release the end of the left and right springs, shown in the figure.



Turn the entire scraper set, as shown in the figure.



Remove the entire scraper set, as shown in the figure.



Once cleaned, assemble the scraper set on the machine in the reverse order of the procedure described for dismantling.

**Hygiene problems**

The materials in contact with the dough are entirely innocuous, they do not affect the product. Following are some merely informative examples of possible hygiene failures after visual inspection or microbiologic analysis, its causes, detection means and its effect and control:

Effect	Cause	Control
Dirt by protein coagulation	The water is too hot, Temperature higher than 60°C	Use water ranging from 55°C to 60°C.
Dirt by grease development	Not too hot water, not so effective in grease elimination Temperature less than 55°C	Use water ranging from 55°C to 60°C.
Dirt with limestone deposit	Too much hard water (>10°FH)	Use less hard water
Dirt accumulation, harder removal	Long intervals between cleanings	Shorter intervals between cleanings or more intense cleaning
Residual dirt	Incorrect rinsing	Rinse well
Initial dirt still visible	The disinfectant did not act for enough time which affected its outcome	Check cleaning procedure
	Too diluted disinfectant	Check disinfectant preparation procedure
	Inappropriate disinfectant	Select correct disinfectant
Dripping water containing microorganisms dirt	Residual humidity	Assure proper drying Assure draining to the equipments and facilities

**6.2.2.- SECURITY SYSTEM CHECK**

The security systems of the machine assure people, property and animals security under any circumstance. To check the operability of these systems, before the start of each shift, proceed in the following way:

Check if the protection lids are operational. If not, re-establish functionality.

Switch on the machine;

Press the lid;

The machine must turn off when pressed. If this does not occur, turn off the machine at the main switch and ask the manufacturer for technical assistance.

Set the machine to operate;

Open the lid;

The machine must switch itself off when the Open the lid; begins to be open. Should that not happen, turn it off on the main switch and call the technical support of the manufacturer.

If the Open the lid is operational, close it and get the machine working again;

Press the emergency button;

The machine must switch itself off and remain as such keeping the emergency button locked. Should this not happen, turn the machine off on the main switch and call the technical support of the manufacturer.

**6.3.- EVERY SIX MONTHS**

Check frequency according to work load:

Number of 8 hour shifts	Check frequency every 6 months
1	One check on the 6th month
2	One check every 3 months
3	One check every 2 months

**6.3.1.- Belts check**

The belts stretching must be performed by a technician who is duly accredited by the manufacturer.

In case of need, depending on the elevation or machine installation, to access the upper-lid area a ladder or other elevation equipment must be used, assuring directives and other current legislation regarding elevation of people is respected.

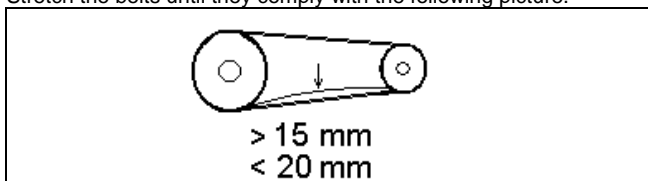
Should belts need stretching, proceed as follows:

Turn off the main switch of the machine;

Disconnect the power supply cable;

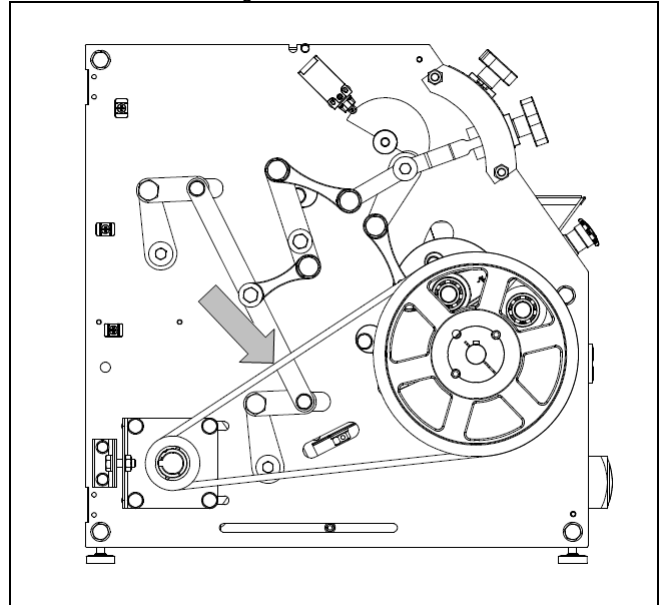
Unfasten the screws on the lid;

Stretch the belts until they comply with the following picture.

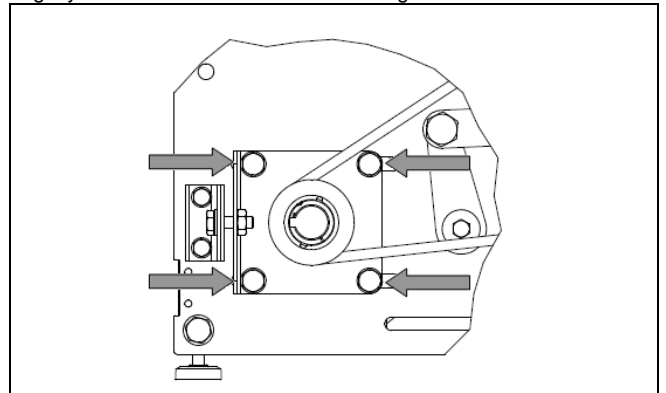


**Transmission belt:**

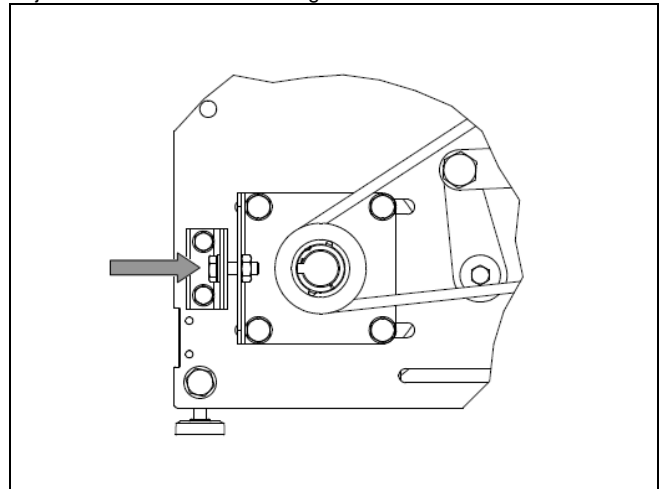
Access is obtained through the machine's side lid.



Slightly loosen the screws shown in the figure.

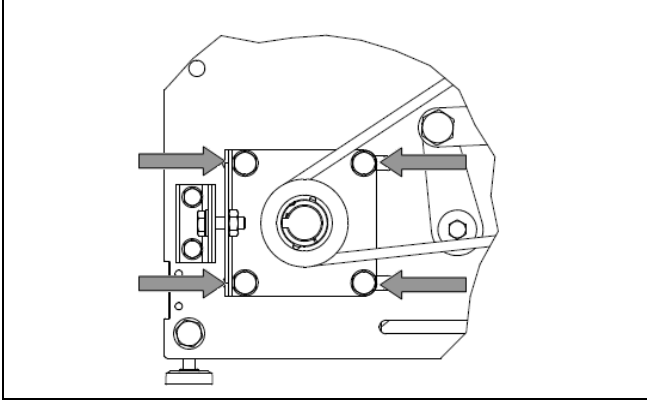


Adjust the screw shown in the figure..





In the end, tighten the screws shown in the figure.



Should a belt be broken, all must be replaced, not simply the one that has been broken. When replacing all belts, use complete sets of the same manufactured series.

Re-check the belts and repeat the procedure once again. Fasten the screws of the lid.

Depending on the usage frequency and effort put upon the machine, this period must be adjusted to what is considered convenient. The higher the usage frequency or effort, the lesser the interval between these checks must be.

### 6.3.2.- Checking the condition of the conveyors

Check whether the conveyors are shredding or have tears on the top, on the rear and on the sides. If they need to be repaired or substituted, the service must be performed by a technician duly certified by the manufacturer.

Check the tuning of the conveyors and, if needed, correct. Each conveyor must be tuned individually. If necessary, repeat the tuning procedure until you obtain the correct tuning.

The manufacturer does not authorize the machine to operate with the conveyors untuned. This operation may cause irreparable damage to the machine, reducing the useful life of the conveyors and the possible occurrence of exposure to various dangers.

**CAUTION**



**Caution: The handling of the conveyors presents a residual risk of upper limb jams. Use protective gloves and handle with care.**

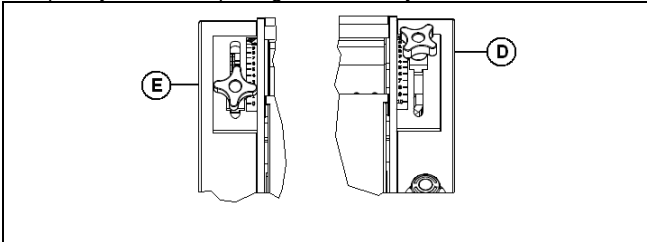
If the conveyor is not stretched enough, with no traction, it may slip and lose speed during operation.

#### **Stretching the conveyors**

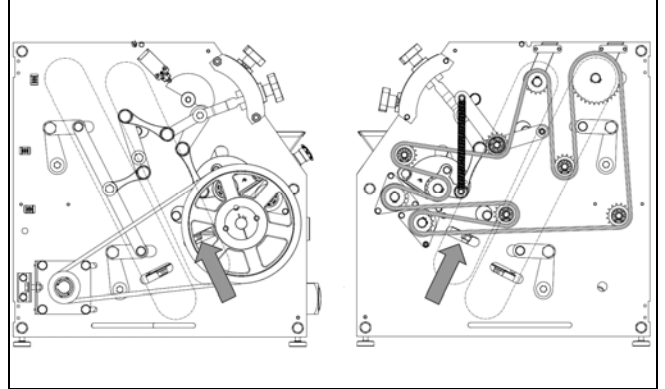
Ensure that the conveyor is stopped.

Access to stretch the conveyor is obtained through the machine's side lids.

Completely close the opening of the conveyors on command E.

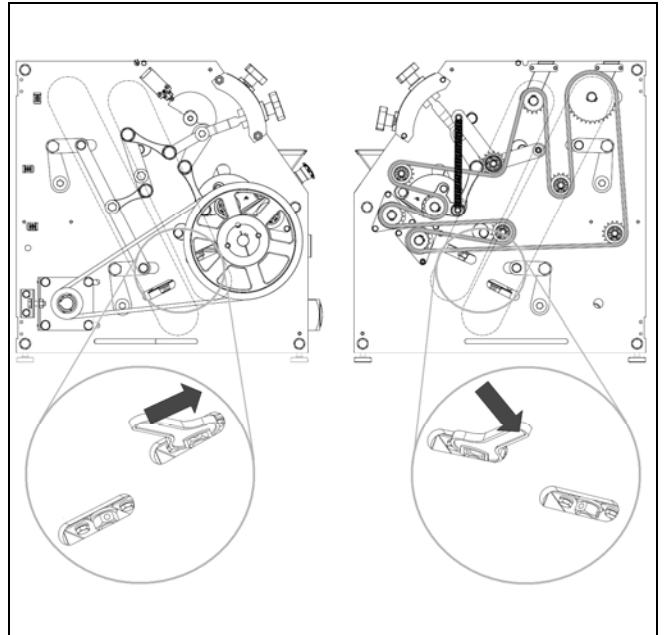


#### Stretching the front conveyor:

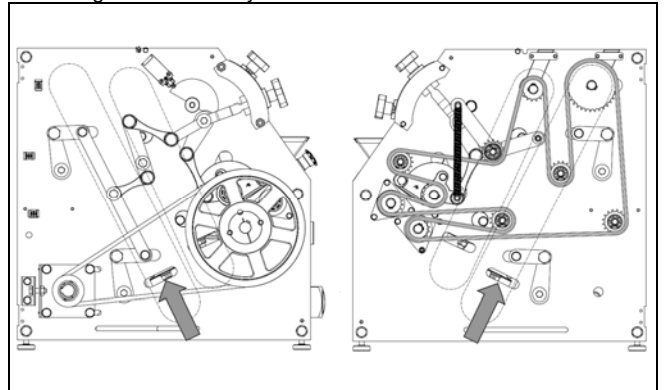


Using a spanner, proceed as per the figure below.

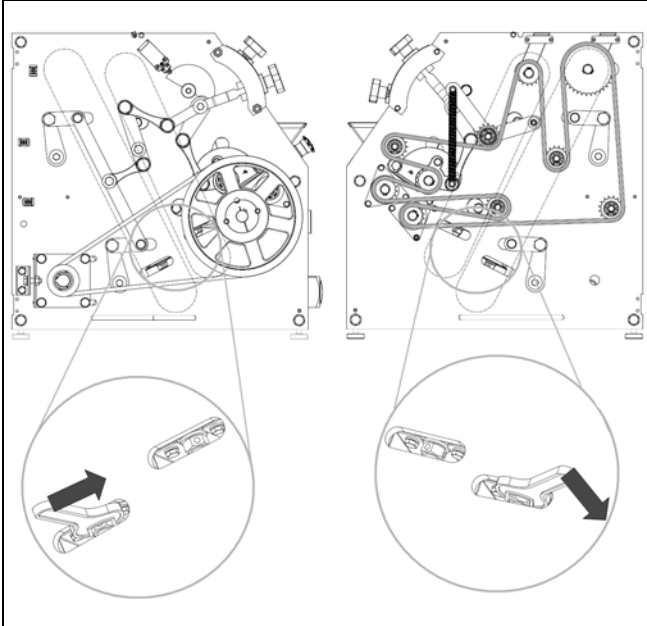
The adjustment must be equal on both sides so that the conveyor does not deviate to the left or right.



#### Stretching the rear conveyor:



Using a spanner, proceed as per the figure below.  
The adjustment must be equal on both sides so that the conveyor does not deviate to the left or right.



**6.3.3- Scrappers check**

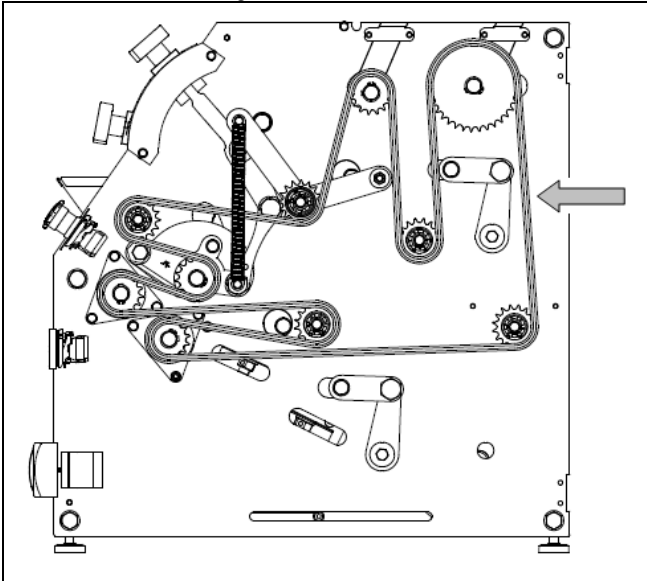
Check if the scrappers provide an effective scrapping of the rollers. Should it be necessary to repair or replace, the service must be performed by a technician who is duly accredited by the manufacturer.

**6.3.4.- Tuning and lubrication general check**

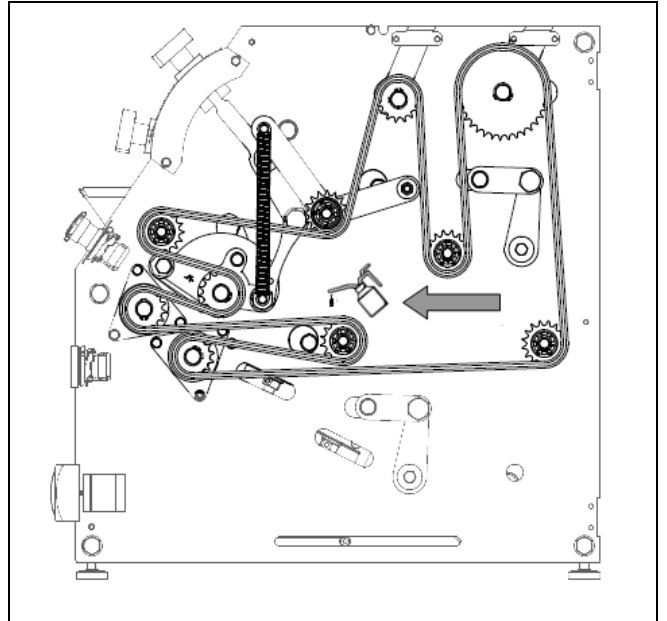
This operation must be performed by a technician who is duly accredited by the manufacturer.

**Transmission belt:**

Access is obtained through the machine's side lid.



Use a common "WD 40" type lubricant or equivalent, to lubricate the belt.



Lubricating grease or oil may run onto the mechanical parts which are being lubricated.  
Clean the excess to prevent spills.

<p><b>CAUTION</b></p>	<p><b>Oil and grease are products which are harmful to the environment.</b></p>
-----------------------	---

Spilt grease or oil contaminate the environment, so avoid spills.

**5.3.5.- Machine fixation check**

Check the fastening of all the machine fixation screws to the anti-vibration supports. Adjust if necessary.

**CHAPTER 7  
ANNEX**

**7.1.- ELECTRICAL SCHEMES**

(Check the end of this manual)

**7.2.- SPARE PARTS**

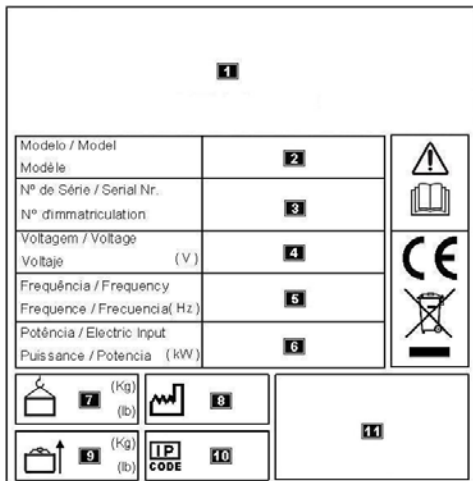
(Check the end of this manual)



**CHAPTER 2  
NAMEPLATE AND INDUSTRIAL USE**

**2.1.- MACHINE NAMEPLATE**

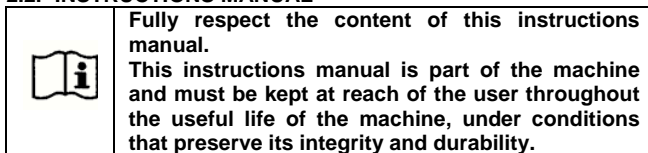
This machine has a nameplate describing properties, fixed on the outer part on which the general properties are described:



**Image Caption:**

Area	Purpose
1	Identification of the manufacturer including full address
2	Model
3	Serial Number
4	Voltage
5	Frequency
6	Power
7	Weight of the machine
8	Year and month of fabrication
9	Maximum load lifting (if applicable)
10	IP protection degree (unmarked for IPx0)
11	Fabrication country

**2.2.- INSTRUCTIONS MANUAL**



**2.3.- GENERAL DESCRIPTION**

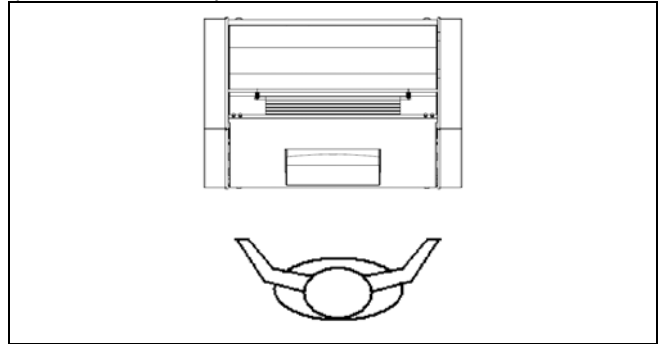
Thank you for choosing or using this equipment. It is our goal to provide reliable, safe and functional equipments, qualitatively adequate to the most demanding mechanical, electrical, ergonomic and food norms. Furthermore, several (electrical, mechanical, among other) tests are developed so as to assure the final quality of the supplied equipments.

Technically, this equipment may be defined as follows: Equipment composed of a steel structure, a series of mechanical devices that, when electrically triggered, transform food dough. Based on its manufacturing and operating technological level, this transformation of products happens without the need for human intervention. Thus, it is easier to obtain a uniform final product – considering the defined parameters and corresponding specifications.

**2.4.- INDUSTRIAL USE OF THE MACHINE**

<p><b>CAUTION</b></p>	<p><b>Non-qualified users are forbidden to operate the machine. Inappropriate operation of the machine is forbidden.</b></p>
-----------------------	--

This machine has been designed to be operated in the transformation of bakery and pastry dough. This machine has been designed to be operated by only one, duly qualified, user and its job is next illustrated.



The intervention of the machine operator consists of the following:  
 Placing the dough to be crushing on the table;  
 Activating the handle to adjust the opening of the rollers;  
 Activate the conveyor adjustment handle;  
 The qualification level for a job may be achieved either through specific training on this machine and production processes, or through duly proved know-how experience. The qualification of the operator must be proved when requested.  
 Throughout the entire manual the operation of the machine is regarded on an 8 hour daily schedule, notwithstanding the machine not working for uninterrupted 8 hours. When the machine is used in a different period, considerations must be adjusted to the proportion of that use.  
 The manufacturer may not be held responsible for any damage to the machine, people, property or animals, resulting from an inappropriate use.

**It is to be considered an inappropriate use of the machine:**  
 Using the machine under inadequate environmental, operational and physical conditions;  
 Using the machine disregarding the good practice of the art of bakery and pastry;  
 The use of the machine by a non-qualified operator;  
 Transforming products for which it has not been designed;  
 Transforming dough with insufficient hydration;  
 Set the rolls for a sudden reduction of the thickness of the dough;  
 Operating the machine without its complete installation;  
 Powering energy different to that specified;  
 Altering performances;  
 Removing or changing security systems;  
 Disrespecting the current laws in the country or the contents of this manual.

**CHAPTER 3  
TRANSPORTATION, STORAGE, MOUNTING, INSTALLATION  
AND CONNECTING**

The incorrect transportation, storage, mounting, installation or connection of this machine by the client or representative may cause material, people, property or animal damage, the manufacturer not being held responsible for this.

**3.1.- TRANSPORTATION**

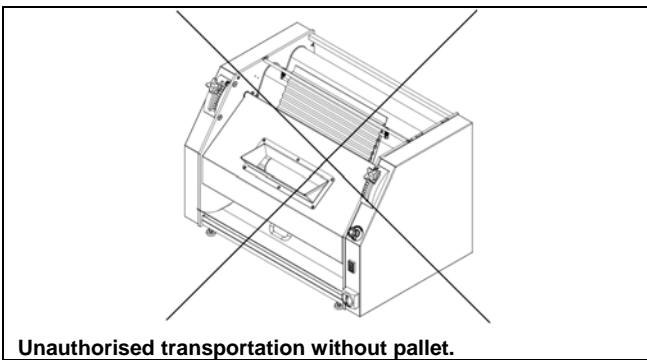
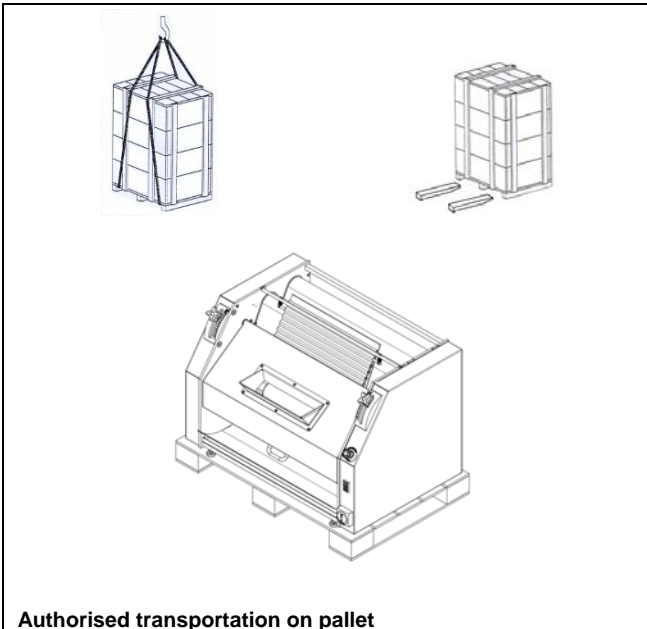
Always use an adequate transportation device regarding the weight on the nameplate.

Always act in compliance with the current laws in your country. The ignorance of such laws does not justify incompliance.

The machine must be transported according to the following images, with a freight elevator, adequate cables, ropes, chains or hooks.

In case of manual handling the risk of the machine over-sliding or sliding in an unexpected direction, must be taken into account.

Regularly check the package for damage subsequent to transportation. In case of damage suspicion, please contact the supplier for examination or record the event so as to later describe the situation.



**3.2.- STORAGE**

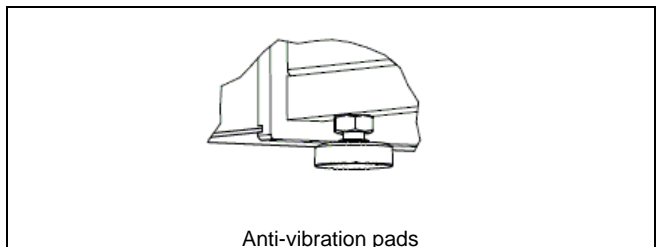
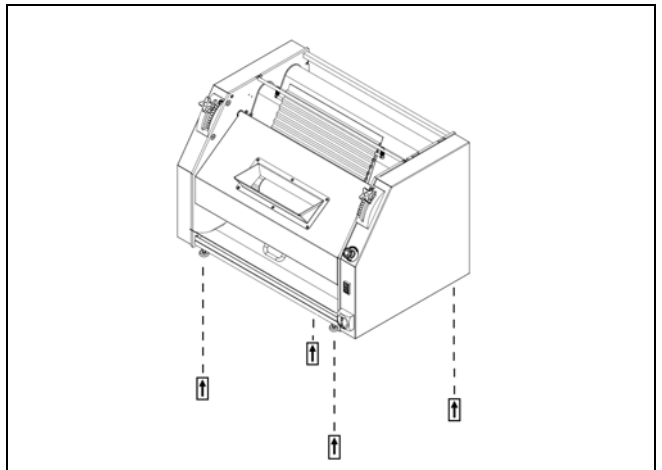
Always use transportation equipment for storage that is adequate to the weight on the nameplate of this machine. The storage site has to hold the same weight, thus ground storage is recommendable, avoiding shelves or elevated storage reduces the risk of machine fall. There is no need for it to be fixed to the ground, however, the pavement must be flat and must not be slippery. The pavement should be free of humidity so as to avoid oxidation on painted chassis machines.

During storage, it is mandatory that the machine is disconnected from electrical power supply, but under not circumstances should it be stored subject to bad weather conditions, it must be kept in conditions similar to the work place.

**3.3.- ASSEMBLING AND INSTALLATION**

<p><b>CAUTION</b></p>	<p><b>During assembling and installation at the work place, make sure the power supply cable is disconnected from the socket. This should be performed by duly accredited personnel by the manufacturer.</b></p>
-----------------------	--

By the operating place of the machine, remove all packaging, such as cardboard, plastic, pallets, protection wood, film and others. At the exact work place, the machine must be levelled by mounting the anti-vibration pads as in the following picture. All the supports of this machine must be adjusted to the floor.




<p><b>CAUTION</b></p>	<p><b>Never run the machine without its complete installation.</b></p>
-----------------------	--

To have the correct working position, the machine must be installed on top of a work station. The work station must be able to support the strain from the weight of the machine and the load for which it has been planned, in accordance with the characteristics label.

The pavement must be made of concrete, able to endure the weight of the machine and the load for which it is set, in compliance with the properties on the nameplate of the machine. The pavement must be of a single flat ballast, not containing amendments between the supports of the machine and having a maximum inclination of 0,5%. Anti-vibratory supports must be readjusted, whenever necessary. Make sure no sand or other residue remain between the supports of the machine and the pavement so as to avoid false grips, oscillation or inconvenient noises.

**3.4.- CONNECTING AND ELECTRICAL SUPPLY**

<p><b>CAUTION</b></p> 	<p>Any intervention to the equipment must be made after the electrical supply cable has been disconnected, however, when working without power is not possible for technical reasons, duly precautions to reduce the risk of electrical shocks and short-circuits must be taken.</p>
---	--

This intervention must be performed by a duly accredited technician. Electrical connection must be made by means of a plug or junction box connectors, from a "neutral TT" line, with a 300mA differential protection.

The electrical power available must comply with the specifications of the properties on the nameplate of the machine.

Mending supply cables is not allowed.

Power strips for phase reversal, 3D power sockets or other adaptation systems are not allowed.

More than one machine connected to the same power source (socket or derivation) is not allowed.

It is necessary to perform an equipotential bonding between machines that share a ferruled ground wire supplementary connection, of a section of at least 6 mm<sup>2</sup>, connected to the exterior screw of this machine identified by the symbol ⊕.


**CHAPTER 4  
MACHINE USAGE**

**3.1.- MACHINE CONTROL PANEL**

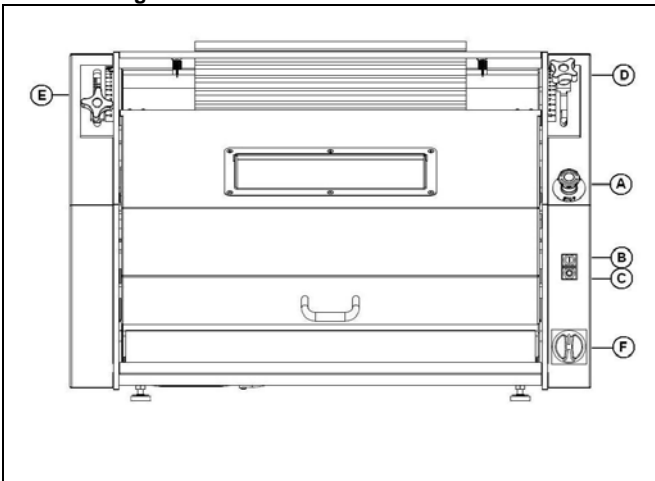
This machine is equipped with a technologically developed control system which controls engines and other electrical equipments.

For the machine to run, the following conditions must be respected:



Closed lid; emergency button unlocked and main switch on.

	<p><b>ATTENTION:</b> Control must be performed with a finger. The use of hard or sharp objects may cause unrepairable damage.</p>
---	---

**4.1.1 – Analog control**



**4.1.2 – Emergency stop**

<p><b>CAUTION</b></p> 	<p>In case of emergency press the emergency button.</p>	
---	---	---

The emergency button must be pressed only when there is the need to stop the machine abruptly, in case of suspicion of damage to the machine, hazard to people's, property's or animals' safety.

Do not use this button to stop work under regular conditions, use the stop button C.

**4.1.3 – Rotation direction check**

This procedure applies only to machines which are powered by a three-phase electrical system.

Assure there is nothing on the rollers.

Power the table in compliance with the specifications on the nameplate of the machine;

Turn the main switch on;

Make sure the lid is closed and the emergency button is not activated.

Press button B;

The rollers must turn simultaneously;

The rotation direction of the rollers must pull the dough;

Should this not happen, stop the machine on button C.

Turn the main switch F off.


Unplug the machine from the power supply and switch two phases between themselves.

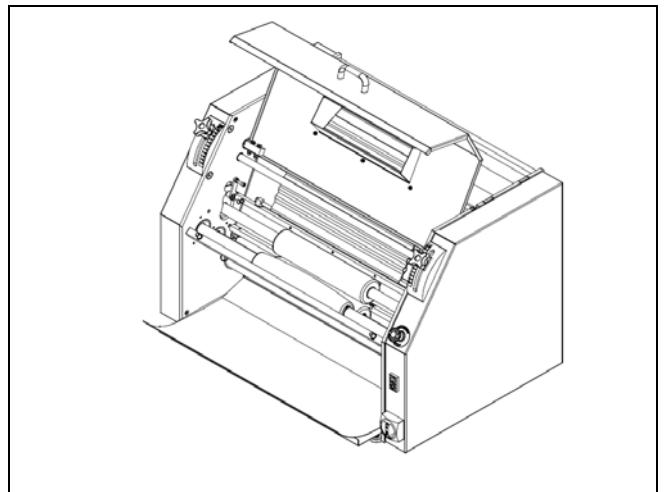
Switch it all on again, for this way the machine shall turn in the correct direction.

**4.1.4 – Placing the dough and setting thickness**

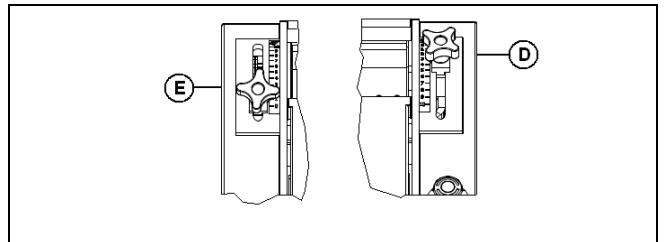
Perform a cleaning operation according to the chapter on daily maintenance in this manual;

The adequate type of dough and the placing position are two very important elements in the fabrication process, as on these may depend on the performance of the machine. Good practice must be respected so as not to overwhelm the machine


<p><b>CAUTION</b></p> 	<p>Caution: lid closing offers a residual risk of upper body limbs jam. Assure there is nothing stopping the closing of each lid.</p>
---	---



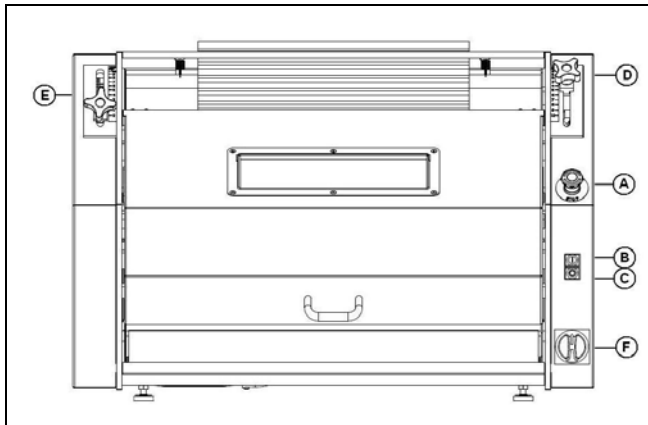
Always set handles D and E to adjust of the opening of the rollers and the conveyor opening adjustments according to the hydration percentage and the configuration of the dough. It must always be flattened to avoid it getting stuck on the lid and overwhelm the machine.



Start the machine as described ahead and only later place the dough.

<p><b>CAUTION</b></p> 	<p>Never place dough on the rollers while the machine is stopped. The start of the machine while loaded can cause unrepairable damage.</p>
---	--

#### 4.2.- FUNCTIONING – ANALOG CONTROL



**Image caption:**

Control	Function
A	Emergency stop button
B	Machine start button
C	Machine Stop button
D	Opening adjustment of the rollers handle
E	Conveyor opening adjustment handle
F	Main switch

##### 4.2.1– Starting the machine

It is necessary for the protection lid to be closed and the emergency button inactivated;  
Turn main switch F on;  
Press button B;  
This procedure will initiate the rollers will start to turn.

##### 4.2.2 – Stopping the machine

One of the following actions is necessary:  
Open the lid;  
Press the lid;  
Press button C.

##### 4.2.3 – Resuming work

If necessary close the lid;  
Press button B.

#### 3.3.- FAILURE DETECTION AND SOLVING

Possible failure – detection	Probable cause	Possible solution
The control does not offer any signal	Non-powered machine	Reconnect to energy supply source
	Main switch off	Turn on main switch
	Jammed emergency button	Turn to unjam button
	Damaged control buttons	Request technical support that is accredited by the manufacturer.
	Other electric failure	Request technical support that is accredited by the manufacturer.
A function of the control does not work	A component is damaged	Replace component
	Other electric failure	Request technical support that is accredited by the manufacturer.
The machine works, lacks power and makes a strange noise	Mechanical part splint	
	Three-phase engines working in two phases.	Reestablish electrical connection
	The belts slide	Stretch belts

All functions are operating, however, the rollers do not move	Damaged engine or the belts have broken	Request technical support that is accredited by the manufacturer.
“Squeaking” type of noise	Damaged roller or equipment lacking lubrication	
The chassis wiggles too much	The screws that fix it to the pavement are loose	Tighten stabilising screws
The machine operates according to control, the movements are blocked and the noise is loud	Mechanical equipment has been damaged, or the rollers are being held by an alien object.	Check rollers and, if necessary, request technical support that is accredited by the manufacturer.
Control is torn or punctured	Use of sharp or cutting objects	Replace control
Dirty roller	Dirty or worn-out scrapper	Clean and, if necessary, request technical support that is accredited by the manufacturer.
Paint job oxidation	Abrasive environment or use of inadequate products or cleaning methods.	Request technical support that is accredited by the manufacturer.
Other non-described failure	Unknown	

#### 4.4.- PROTECTION MEASURES

The user must comply with all the necessary protection measures that apply. Thus, possible dust must be prevented by using a work overall and avoid dough contamination by protecting all capillary body parts.

#### 4.5.- ACCESSORIES AND TOOLS

This machine does not need accessories or tools for its usage or assembling.

#### 4.6.- MACHINE STABILITY

Conditions under which the machine complies with the stability requisite:

Phases	Conditions
Transportation and mounting	According to the specific information in the chapter on transportation, mounting, installation and connection within this manual.
Usage	According to specific information on assembling in this manual According to specific information in the chapter on maintenance.
Dismounting	On dismounting operations it is mandatory that the machine is on work position.
Out of service	When out of service, the machine must be in working position. The pavement must not be sloping or slippery. The machine does not need to be screwed to the floor.
During testing	When testing load the above described is applicable.
During possible failures	In case of power failure or other failure while dough is on the machine, it must be manually removed or power to be re-established

## CHAPTER 5

### PROPERTIES OF THE MACHINE

#### 5.1.- MECHANICAL PROPERTIES

The structure has standard or special order measures, to match its purpose.

Made of steel, standard physical-chemical or special order characteristics.

The materials that are in straight contact with the dough do not offer any hazard of contamination or change of its properties.

Mechanical transmissions are performed by analogical control no speed variation belts.

#### 5.2.- ELECTRICAL PROPERTIES

This machine has been manufactured according to characteristics on the nameplate.

Check annex to this manual for the electrical scheme.

The electrical system has been tested according to the applicable legislation and the test record is part of this manual.

Only Technical Support that is accredited by the manufacturer is qualified to work the electrical part. All necessary precautions must always be taken so as to reduce fire, electrical shocks and personal damage hazard, always in compliance with the following norms:

1. Stopping the machine.
2. Turning off main switch.
3. Disconnecting power cable.
4. Performing the necessary maintenance or repairing operations and only then,
5. Re-switching the machine to the power supply.

#### 5.3.- MACHINE CAPACITY

The maximum capacity is specified in the machine's commercial documentation.

#### 5.4.- SECURITY SYSTEM

The potentially most dangerous part of the machine is the rollers area, however, the user is not exposed to hazard on accounts for the solutions incorporated in the equipment:

- The safety lid must be closed for the machine to operate;
- When the safety lid is open, the movement immediately stops;
- When the safety lid is pressed, the movement immediately stops;
- The general outer protection index of the machine is IP20 or greater if by special order.
- Protection lids or other security measure can only be removed by using tools.

If any security system component is noticed to be inoperative, turn off the main switch and call the manufacturer on the phone for technical support.

#### CAUTION



For your safety, respect this manual and the signs on the machine,



#### 5.5.- PRECAUTION WITH TOOLS

This machine does not need accessories or tools for its usage or assembling.

#### 5.6.- PRECAUTION WITH BELTS

The user does not need to have straight access to the belts area, as it is not part of the user's regular work. This area is protected by rigid screwed lids.

#### 5.7.- NOISE EMISSION

The use of specific manufacturing techniques sustains an average sound pressure, considered in A, lower than 70dB, in compliance with ISO directive 3744: "Acoustic. Determination of sound power

levels of noise sources using sound pressure. Engineering method in an essentially free field over a reflecting plane."

#### 5.8.- RADIATION EMISSION

The machine does not produce any sort of radiation, including ionizing and non-ionizing radiations that may hazard the user's or exposed people's health, including cases involving active or non-active implanted medical devices.

#### 5.9.- LIFE CYCLE OF THE PRODUCT

#### CAUTION



Do not place debris of the components of the machine together with domestic waste.

During the life cycle of the product, whether it is an inspection operation, maintenance or disposal of this machine, the manufacturer is responsible for the treatment of any piece, component or material at any phase. The life cycle management must always be made by the manufacturer, the only to be held responsible for this management if duly informed for it.

This management firstly considers the possible repair and later reuse of any piece, component or material, however, should that not be possible, redirection to duly accredited residue management must be done, always keeping recycling as a priority. Taking this into consideration, the manufacturer shall deliver into the market highly recyclable equipment.

Directives of different countries must always be taken into consideration, each case having to be regarded separately.



This equipment has the recycling symbol. This means all residues must be separated per type and deposited in an adequate place for residue collection never included in domestic waste.

This attitude is environmentally friendly and beneficial to all in present and coming generations.



**CHAPTER 6  
MAINTENANCE**

**CAUTION**



Turn off the main switch and power cable before each cleaning or maintenance operation.

Whenever potentially dangerous operations are performed, such as mechanic tunings, maintenance, dismantling, electrical components replacement, mechanical or other type, the user must assure the electrical power cable is correctly unplugged. The internal mechanical components of the machine may eventually offer some mechanical residual hazard. To handle these components wear adequate protection gloves.

**CAUTION**



Do not run the machine until all lids, security devices and protection have been set.

In case of a request to the manufacturer, please offer the information on the nameplate of the machine. Check the annex for the repairing pieces or maintenance applicable to this machine.

**6.1.- WHEN THE MACHINE IS NEW**

Proceed to a cleaning operation, as described in the daily cleaning topic of this manual.

Even after the cleaning, it is convenient to test the functioning before starting manufacturing, using ingredients that are not to be consumed by people. Thus, packaging, transportation and installation residues can be removed.

**6.2.- EVERYDAY**

**6.2.1.- Machine cleaning**

The machine cleaning frequency must be adjusted according to the work hours and the severity of the product. Following is a suggested cleaning frequency table according to the work load:

Number of 8 hour shifts	Cleaning frequency within 24 hours
1	One cleaning procedure every 24 hours
2	One cleaning procedure every 8 hours
3	

The machine must be cleaned after operating, on the scrapers and on the table on which the dough lands. On these areas, a diluted disinfectant recommended by the manufacturer must be used, followed by abundant rinsing and drying with an absorbent paper or dry cloth.

The water temperature must range between 55°C and 60°C.

**CAUTION**

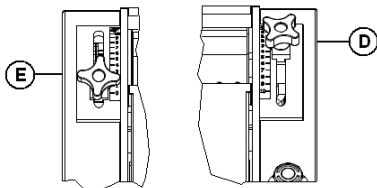


Do not use knives, sandpaper, metallic objects, abrasive, toxic or solvent products, or any other sort that may damage the surface or leave residue that may result in product contamination. Do not use jets of water to clean the machine.

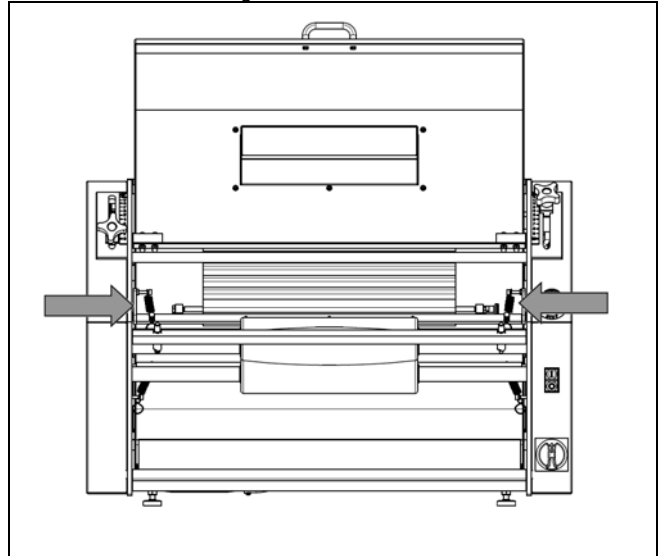
On the lid and outer parts of the machine, a vacuum cleaner for dough and flour residue can be used. Next, a slightly wetted, with diluted disinfectant, cloth or soft sponge may be used, taking care not to cause dripping. In the end proceed to the drying by using dry absorbent paper or cloth.

**Top scraper – disassembly procedure:**

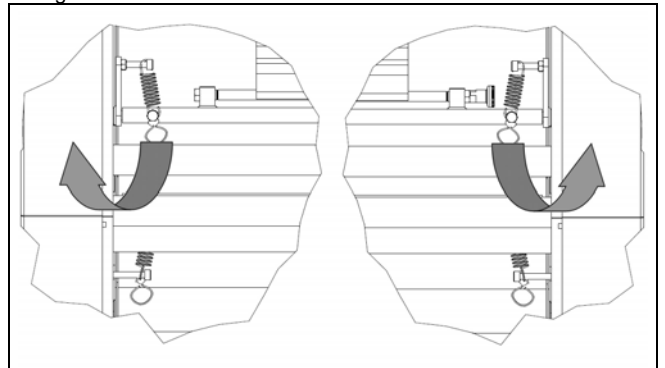
Completely open the rollers on command D.



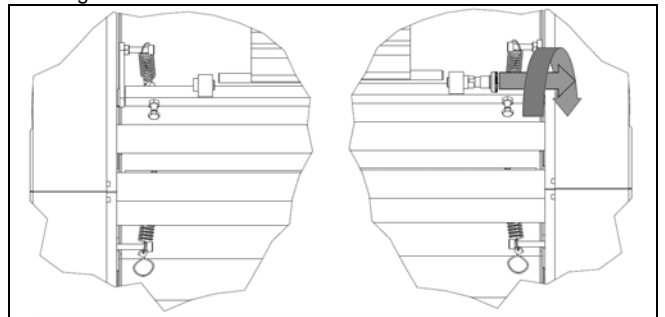
Access is obtained through the machine's front lid.



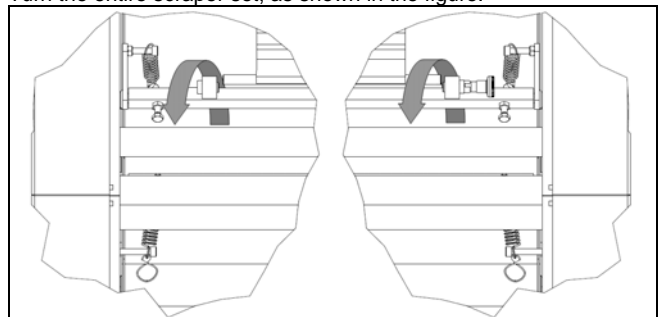
Pull down and release the end of the left and right springs, shown in the figure.



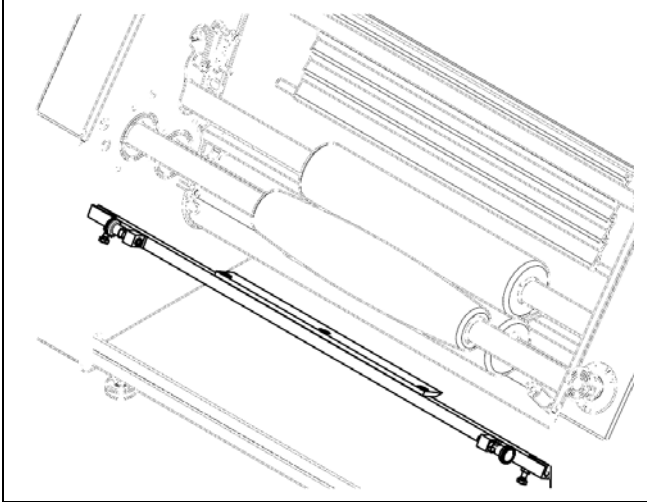
Pull and turn the lock on the left and the lock on the right, as shown in the figure.



Turn the entire scraper set, as shown in the figure.



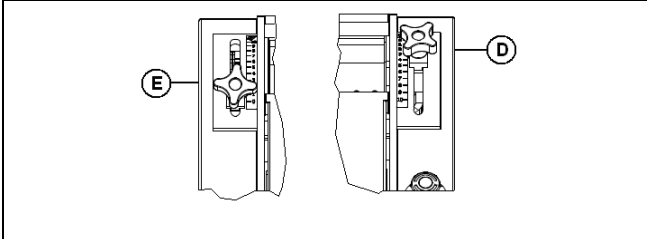
Remove the entire scraper set, as shown in the figure.



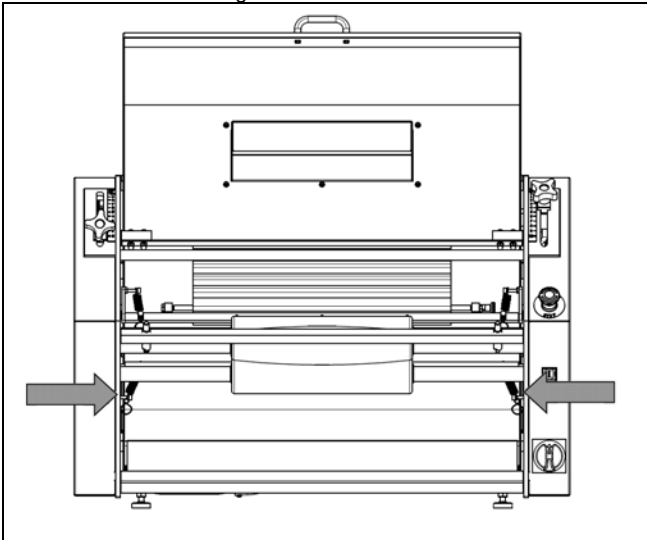
Once cleaned, assemble the scraper set on the machine in the reverse order of the procedure described for dismantling.

**Lower scraper – dismantling procedure:**

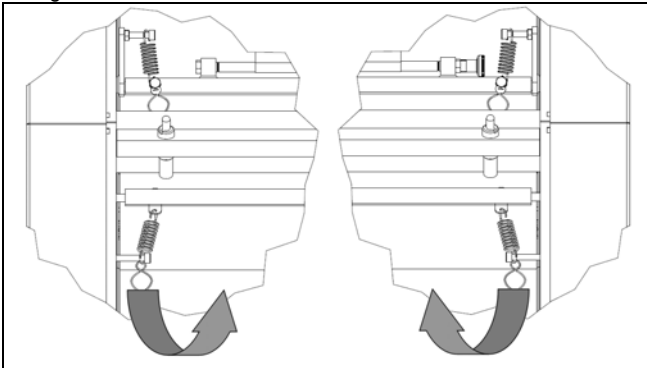
Completely open the rollers on command D.



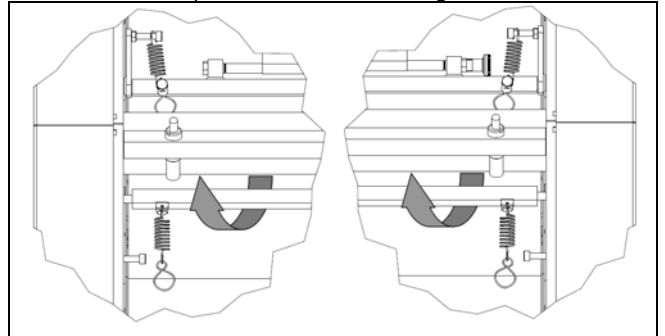
Access is obtained through the machine's front cover.



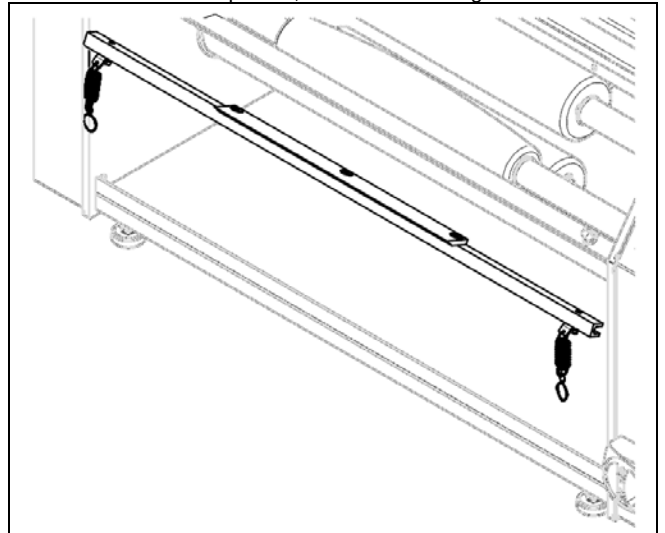
Pull down and release the end of the left and right springs, shown in the figure.



Turn the entire scraper set, as shown in the figure.



Remove the entire scraper set, as shown in the figure.



Once cleaned, assemble the scraper set on the machine in the reverse order of the procedure described for dismantling.

**Hygiene problems**

The materials in contact with the dough are entirely innocuous, they do not affect the product. Following are some merely informative examples of possible hygiene failures after visual inspection or microbiologic analysis, its causes, detection means and its effect and control:

Effect	Cause	Control
Dirt by protein coagulation	The water is too hot, Temperature higher than 60°C	Use water ranging from 55°C to 60°C.
Dirt by grease development	Not too hot water, not so effective in grease elimination Temperature less than 55°C	Use water ranging from 55°C to 60°C.
Dirt with limestone deposit	Too much hard water (>10°fH)	Use less hard water
Dirt accumulation, harder removal	Long intervals between cleanings	Shorter intervals between cleanings or more intense cleaning
Residual dirt	Incorrect rinsing	Rinse well
Initial dirt still visible	The disinfectant did not act for enough time which affected its outcome	Check cleaning procedure
	Too diluted disinfectant	Check disinfectant preparation procedure
	Inappropriate disinfectant	Select correct disinfectant
Dripping water containing microorganisms dirt	Residual humidity	Assure proper drying Assure draining to the equipments and facilities

**6.2.2.- SECURITY SYSTEM CHECK**

The security systems of the machine assure people, property and animals security under any circumstance. To check the operability of these systems, before the start of each shift, proceed in the following way:

Check if the protection lids are operational. If not, re-establish functionality.

Switch on the machine;

Press the lid;

The machine must turn off when pressed. If this does not occur, turn off the machine at the main switch and ask the manufacturer for technical assistance.

Set the machine to operate;

Open the lid;

The machine must switch itself off when the Open the lid; begins to be open. Should that not happen, turn it off on the main switch and call the technical support of the manufacturer.

If the Open the lid is operational, close it and get the machine working again;

Press the emergency button;

The machine must switch itself off and remain as such keeping the emergency button locked. Should this not happen, turn the machine off on the main switch and call the technical support of the manufacturer.

**6.3.- EVERY SIX MONTHS**

Check frequency according to work load:

Number of 8 hour shifts	Check frequency every 6 months
1	One check on the 6th month
2	One check every 3 months
3	One check every 2 months

**6.3.1.- Belts check**

The belts stretching must be performed by a technician who is duly accredited by the manufacturer.

In case of need, depending on the elevation or machine installation, to access the upper-lid area a ladder or other elevation equipment must be used, assuring directives and other current legislation regarding elevation of people is respected.

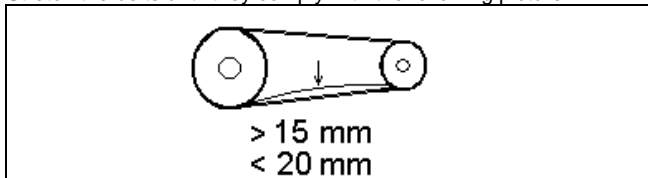
Should belts need stretching, proceed as follows:

Turn off the main switch of the machine;

Disconnect the power supply cable;

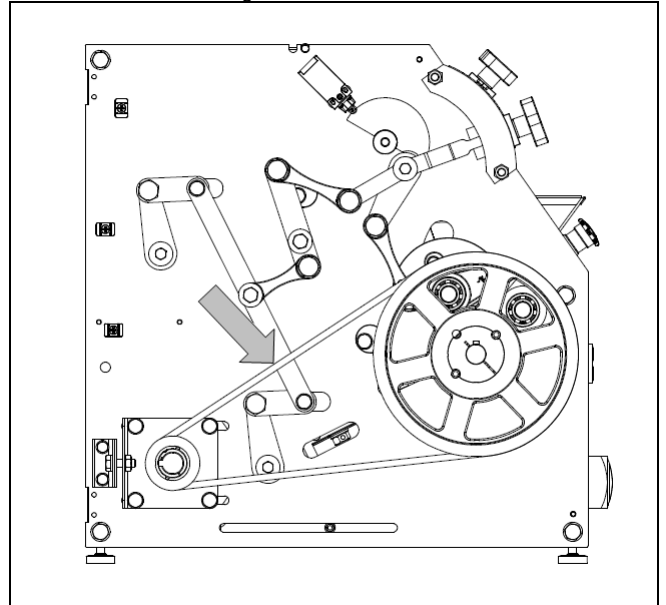
Unfasten the screws on the lid;

Stretch the belts until they comply with the following picture.

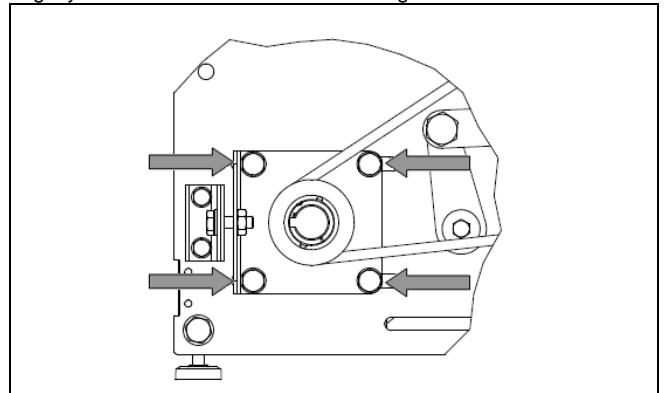


**Transmission belt:**

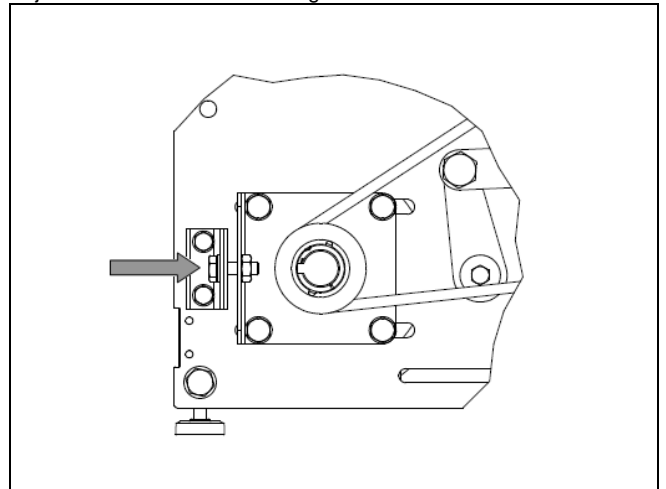
Access is obtained through the machine's side lid.



Slightly loosen the screws shown in the figure.

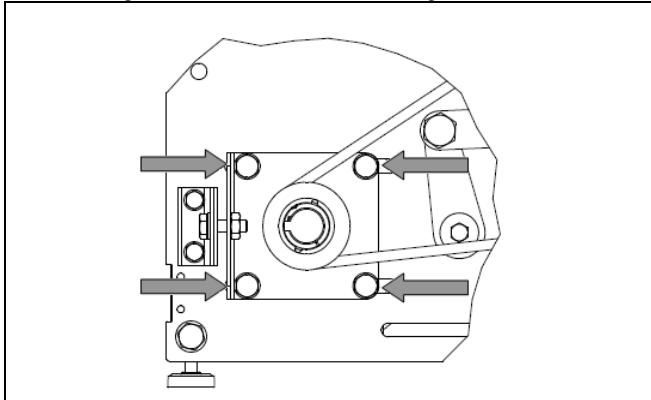


Adjust the screw shown in the figure..





In the end, tighten the screws shown in the figure.



Should a belt be broken, all must be replaced, not simply the one that has been broken. When replacing all belts, use complete sets of the same manufactured series.

Re-check the belts and repeat the procedure once again. Fasten the screws of the lid.

Depending on the usage frequency and effort put upon the machine, this period must be adjusted to what is considered convenient. The higher the usage frequency or effort, the lesser the interval between these checks must be.

### 6.3.2.- Checking the condition of the conveyors

Check whether the conveyors are shredding or have tears on the top, on the rear and on the sides. If they need to be repaired or substituted, the service must be performed by a technician duly certified by the manufacturer.

Check the tuning of the conveyors and, if needed, correct. Each conveyor must be tuned individually. If necessary, repeat the tuning procedure until you obtain the correct tuning.

The manufacturer does not authorize the machine to operate with the conveyors untuned. This operation may cause irreparable damage to the machine, reducing the useful life of the conveyors and the possible occurrence of exposure to various dangers.

**CAUTION**



**Caution: The handling of the conveyors presents a residual risk of upper limb jams. Use protective gloves and handle with care.**

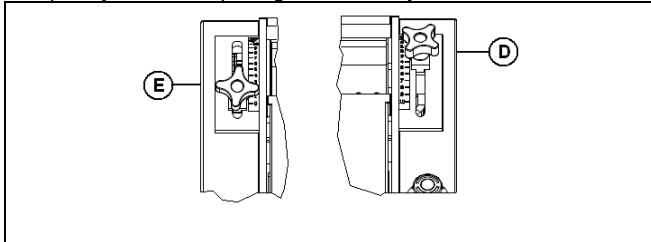
If the conveyor is not stretched enough, with no traction, it may slip and lose speed during operation.

#### **Stretching the conveyors**

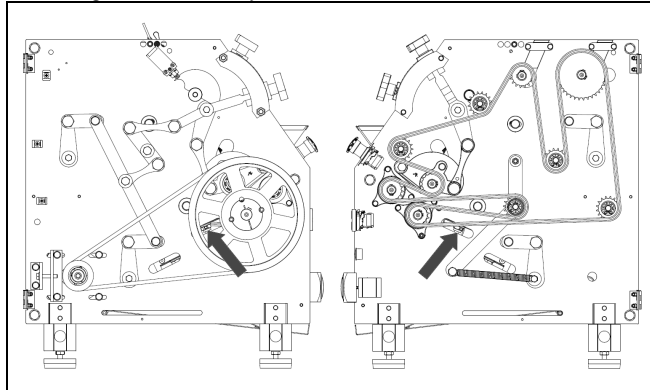
Ensure that the conveyor is stopped.

Access to stretch the conveyor is obtained through the machine's side lids.

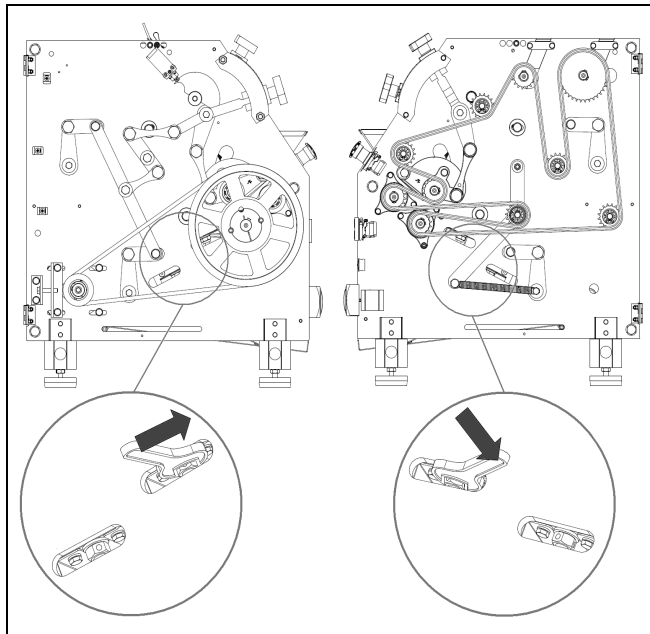
Completely close the opening of the conveyors on command E.



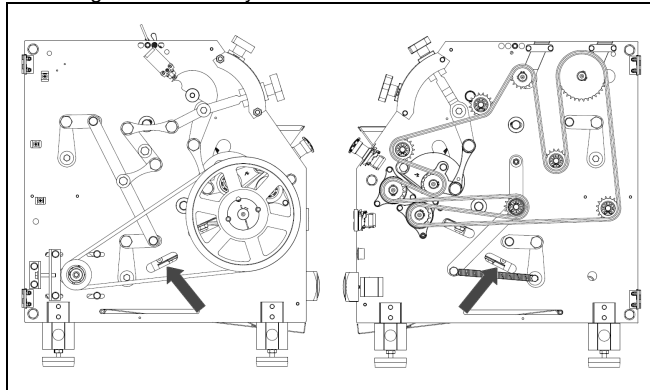
#### Stretching the front conveyor:



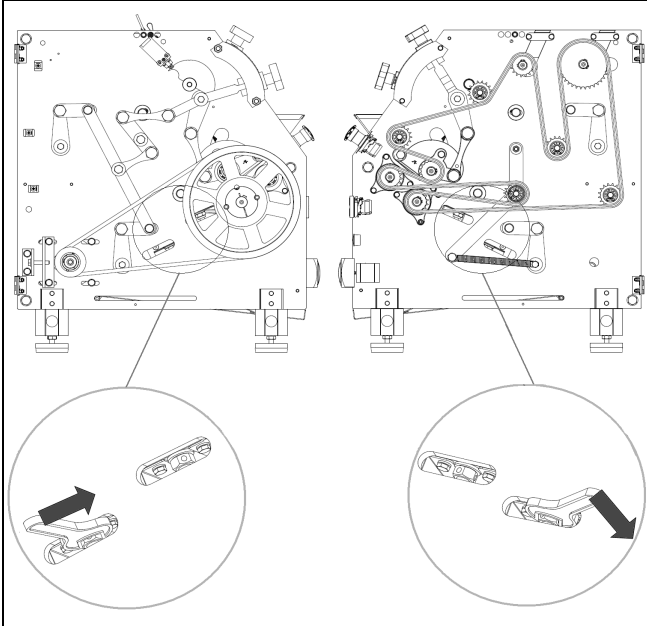
Using a spanner, proceed as per the figure below. The adjustment must be equal on both sides so that the conveyor does not deviate to the left or right.



#### Stretching the rear conveyor:



Using a spanner, proceed as per the figure below.  
The adjustment must be equal on both sides so that the conveyor does not deviate to the left or right.



**6.3.3- Scrappers check**

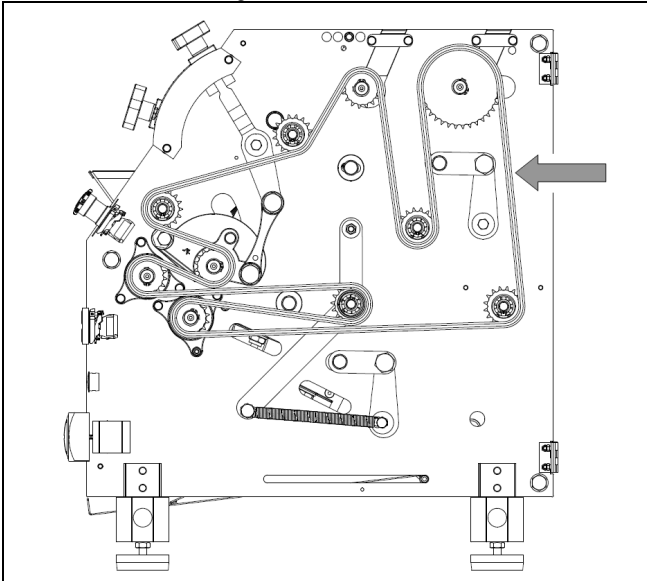
Check if the scrappers provide an effective scrapping of the rollers. Should it be necessary to repair or replace, the service must be performed by a technician who is duly accredited by the manufacturer.

**6.3.4.- Tuning and lubrication general check**

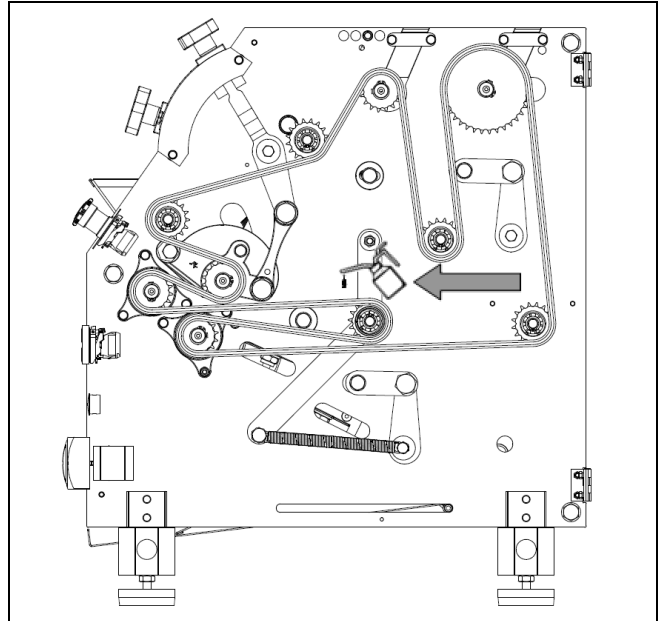
This operation must be performed by a technician who is duly accredited by the manufacturer.

**Transmission belt:**


Access is obtained through the machine's side lid.



Use a common "WD 40" type lubricant or equivalent, to lubricate the belt.



Lubricating grease or oil may run onto the mechanical parts which are being lubricated. Clean the excess to prevent spills.

<p><b>CAUTION</b></p> 	<p><b>Oil and grease are products which are harmful to the environment.</b></p>
--	---

Spilt grease or oil contaminate the environment, so avoid spills.

**5.3.5.- Machine fixation check**

Check the fastening of all the machine fixation screws to the anti-vibration supports. Adjust if necessary.

## CHAPTER 7

### SECURITY INSTRUCTIONS

#### 7.1 - SECURITY INSTRUCTIONS

- The machine must be used only for the functions that it has been conceived for. Doyon will not be responsible for the damages caused by an improper, bad or irrational use of the machine.
- Before cleaning or doing maintenance, turn the main switch off and unplug it.
- Do not remove security parts of the machine.
- If the machine has inactive security units, do not turn it on.
- The work of the machine may be stopped by using the red stop switch.
- The control panel has low tension (24 v).
- If you detect any damages or bad function of the machine, inactive it immediately and call for an authorized technician, otherwise it may cause irreversible damages.
- The electric connections must follow the procedures presented in the installation chapter.

#### 7.2 - SPECIAL PRECAUTIONS

##### 7.2.1 - CAUTION WITH THE BELTS

Danger, the belts must be protected with fixed protections. In order to have access to them, you must respect the instructions of the manual.

##### 7.2.2 - ELECTRIC HAZARDS

The electric installation follows the Canadian, American and European security rules. Nevertheless, when using electric tools, respect the basic security rules in a way to avoid the risk of fire, electric shocks, personal and material damages.

Only qualified people may access the parts that have electric current, which are obliged to:

1. Stop the machine
2. Turn off the main switch.
3. Unplug the machine.
4. Do the necessary operations.
5. Plug the machine again.

##### 7.2.3 - HYGIENIC HAZARDS

All the materials that are in contact with the dough must be non toxic and inoffensive.

**CAUTION**  
**SAVE THESE INSTRUCTIONS**

# LIMITED WARRANTY

(Continental United States Of America And Canada Only)

Doyon Equipment Inc. guarantees to the original purchaser only that its product are free of defects in material and workmanship, under normal use.

This warranty does not cover any light bulbs, thermostat calibration or defects due to or resulting from handling, abuse, misuse, nor shall it extend to any unit from which the serial number has been removed or altered, or modifications made by unauthorized service personnel or damage by flood, fire or other acts of God. Nor will this warranty apply as regards to the immersion element damaged by hard water.

The extent of the manufacturer's obligation under this warranty shall be limited to the replacement or repair of defective parts within the warranty period. The decision of the acceptance of the warranty will be made by Doyon Equipment service department, which decision will be final.

The purchaser is responsible for having the equipment properly installed, operated under normal conditions with proper supervision and to perform periodic preventive maintenance.

If any parts are proven defective during the period of two years from date of purchase, Doyon Equipment Inc. hereby guarantees to replace, without charge, F.O.B. Linière, Quebec, Canada, such part or parts.

Doyon Equipment Inc. will pay the reasonable labor charges in connection with the replacement parts occurring within one year from purchase date. Travel over 50 miles, holiday or overtime charges are not covered. After one year from purchase date, all labor and transportation charges in connection with replacement parts will be the purchaser's responsibility.

Doyon Equipment Inc. does hereby exclude and shall not be liable to purchaser for any consequential or incidental damages including, but not limited to, damages to property, damages for loss of use, loss of time, loss of profits or income, resulting from any breach or warranty.

In no case, shall this warranty apply outside Canada and continental United States unless the purchaser has a written agreement from Doyon Equipment Inc.