



FLO AUTOMATIC L SEALERS

USE AND MAINTENANCE MANUAL



Via Tolomeo, 11

36034 Malo (VI) Italy

Telefono +39 0445 / 580093 - Fax +39 0445 / 584609

<http://www.preferredpackitaly.com>

E-mail:info@preferredpack.it

CLIENTE _____

MODEL _____

SERIAL NR. _____

SUPPLY _____

POWER _____

AIR _____

MACHINE DIMENSIONS _____

MACHINE WEIGHT _____

FOREWORD

In thanking you for the preference given to us, we are glad to welcome you to its wide circle of Clients and hopes that the use of this machine completely satisfies you.

This manual was prepared with the aim to allow you to operate on the various components, explain the various operations for maintenance and operation

In order to guarantee a satisfactory level of efficiency, life and performance of the machine, we urge you scrupulously observe the instructions contained in this manual.



PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLING THE MACHINE.

THIS MANUAL IS AN INTEGRAL PART OF THE PRODUCT AND MUST ALWAYS ACCOMPANY THE SAME UP TO ITS DISMANTLING.

Preferred Packaging Italy srl is absolutely not responsible for any direct or indirect consequence due to proper or improper use of this issuing or of the system software and has got right to make technical modification on his system and on his manual without advising the users.

Preferred Packaging srl – Via Tolomeo ,11 – 36034 – Malo - Italy. Tel. +39 0445 / 580093
Fax +39 0445 / 584609



Dichiarazione di conformità CE
EC Declaration of conformity

Il fabbricante Preferred Packaging srl con insediamenti produttivi in Via Tolomeo , 11 Malo 36034 (Italy)

The company Preferred Packaging srl with production site in Via Tolomeo , 11 Malo 36034 (Italy)

Dichiara che la macchina
Declares that the machine

tipo <i>Type</i>	
series <i>Series</i>	
modello <i>model</i>	
matricola nr. <i>serial nr.</i>	
anno di costruzione <i>year of construction</i>	

è conforme alle direttive comunitarie
complies with EC Directives

2006/42/CE	Concernente il riavvicinamento delle legislazioni degli Stati membri relative alle macchine <i>On the approximation of the laws of the Member States relating to machinery</i>
2004/108/CE	Compatibilità elettromagnetica <i>Electromagnetic compatibility</i>
2006/95/CE	Bassa tensione <i>Low voltage</i>

E alle norme armonizzate di buona pratica costruttiva, tra cui :
and with Harmonized Standards :

EN ISO 12100-1	Sicurezza del macchinario. Concetti fondamentali, principi generali di progettazione. Terminologia di base <i>Safety of machinery. Basic concepts, general principles for design. Basic terminology</i>
EN ISO 12100-2	Sicurezza del macchinario. Concetti fondamentali, principi generali di progettazione. Specifiche e principi tecnici. <i>Safety of machinery. Basic concepts, general principles for design. Technical principles and specifications</i>
EN 60204-1	Sicurezza del macchinario. Equipaggiamento elettrico delle macchine. Parte 1: regole generali. <i>Safety of machinery. Electrical Equipment of Machines. Part. 1 : General rules</i>
EN 60439-1	Apparecchiature assiegate di protezione e manovra per bassa tensione <i>Low voltage switchgear and controlgear assemblies</i>

Il sottoscrittore per l'azienda
 The company undersigner

Nome:
 Name:

Cognome:
 Surname:

Funzione: Legale Rappresentante
 Charge: Legal Representative

Malo,

Data / Date

.....
Firma/Signature

HYGIENIC DECLARATION OF CONFORMITY

Preferred Packaging with the production in via Tolomeo, 11 – 36034 – Malo (Italy) declares that the mechanical components and other, with regard to the machines mentioned in this manual ; under normal design and operating conditions they don't come in direct contact with food products and do not alter their characteristics , according to what is foreseen in regulation CE 852/2004 according which Preferred Packaging machines exclusively complete activities related to packaging and secondary packaging accessories.

Preferred Packaging srl

FLO MACHINES TECH.FEATURES RESUME

FLO – L SEALER MODEL

TECHNICAL FEATURES :

Codes : 530 ; 530T ; 530CS ; 530CST ; 560 ; 560T ; 560CS ; 560CST ; 790CS

Sealing-L

CS: AUTOMATIC CENTER SEALING

T: SHRINK TUNNEL

Dimensions L BAR:

530:450x600 mm **560:**450x600 mm **790:**750x950 mm **eco model** :500x650 mm

Max product's Width :350 mm(FLO530); 420 mm (FLO560) up to 700 mm (FLO790CS)

Max. product's length from 550mm(FLO530);600mm(FLO560) up to 950(FLO790CS) mm

Max product's height from 150 mm up to 240 mm

Film width from 550MM (FLO530); 650 MM (FLO560) up to 950 mm (FLO790CS)

SUMMARY

1. GENERAL INSTRUCTION.....	8
1.1 UNPACKING.....	8
1.2 WARRANTY CONDITION.....	9
1.3 WARRANTY EXCEPTIONS.....	10
1.4 WARNINGS.....	10-12
1.5 HOW TO USE THIS MANUAL.....	13
1.6 LEGAL REFERENCES.....	13
1.7 REMARKS ON GENERAL SAFETY.....	14
1.8 SYMBOL LEGEND.....	15
2. MACHINE'S VIEW & INSTALLATION	
2.1 MACHINE'S VIEWS.....	16-21
2.2 MACHINE'S TURN ON.....	22-24
2.3 FILM THREADING.....	25-34
3. SET UP	
3.1 MACHINE'S SET UP.....	35-49
3.2 SHRINK TUNNEL SETUP.....	50-51
4. ADJUSTMENTS	
4.1 MACHINE GENERAL ADJUSTMENTS.....	52-56
5. TROUBLE SHOOTING & ROUTINE MAINTENANCE	
5.1 TROUBLES EXAMPLES.....	57-61
5.2 TROUBLES SHOOTING SOLUTION.....	62-67
6. MAINTENANCE	
6.1 ROUTINE MAINTENANCE TABLE.....	68-69
6.2 MAINTENANCE SEQUENCE.....	70-71
6.3 MAINTENANCE RESUME & INSPECTION.....	72-73
7. REMARKS.....	74-76

1 GENERAL INSTRUCTION

1.1 UNPACKING -THOROUGHLY INSPECT EQUIPMENT UPON ARRIVAL

If goods are received short or in a damaged condition, it is important that you notify the carrier's driver **before he leaves your company** and **insist** on a notation of the loss or damage across the face of the freight bill. Unless this is done, no claim can be enforced against the transportation company.

If concealed loss or damage is discovered, notify the carrier at once and **insist** on an inspection. This is absolutely necessary! A concealed damage report must be made no later than ten (10) days from the date the shipment was delivered. Unless you do this, the carrier will not consider any claim for loss or damage. The carrier's agent will then make an inspection and grant a concealed damage notation. If you give the transportation company a clear receipt for the goods that have been damaged or lost in transit, you do so at your own risk and expense.

All claims must be filed within six (6) months of delivery date or carrier will not accept them.

Preferred Packaging is willing to assist in every possible manner to collect claims for loss or damage; however, this does not hold Preferred Packaging responsible for collection on claims or replacement of material.

1.2 WARRANTY CONDITIONS

Preferred Packaging Systems, Inc. warrants each new product manufactured to be free from defects in material and workmanship for a period of (1) year from date of shipment by Preferred Packaging.

This warranty is not transferable with any subsequent resale.

Defective parts under warranty must be returned to Preferred Packaging freight prepaid. Preferred's sole obligation and purchaser's sole remedy in the event of a warranty dispute shall be, at Preferred's opinion, to repair or replace the part in question. Labor incurred in removing or installing the defective part is not covered by this warranty. Prior to returning any parts for any reason, contact Preferred Packaging for a Return Authorization Number. This number must accompany all returns.

This warranty shall not apply if equipment has been tampered with, misused, improperly installed, altered, or has received damage due to abuse, carelessness, accident or failure to follow recommended regular maintenance procedures or has been serviced by someone other than a duly authorized factory representative without the express written consent of Preferred Packaging Systems, Inc.

This warranty is in lieu of all other warranties, expressed or implied, including but not limited to warranties of merchantability and fitness for a particular purpose, non-infringement or any other matter.

Preferred Packaging shall have no liability to any person for direct, indirect, incidental or consequential damages or delay resulting from any defect negligence, or tort and customer hereby waives for itself any and all claims for punitive damages and all claims of negligence of strict liability or both. In no event shall our liability exceed the purchase price of the product that was actually paid.

Preferred Packaging reserves the right to make changes, additions, or improvements to our products with no obligation to make such changes in any previously shipped product covered by this warranty.

Preferred Packaging shall not be held liable for any damages arising out for nor in connection with the operation of the equipment should customer or its agent fail to maintain equipment in safe operating condition. This warranty shall become unenforceable if and to the extent the customer or its agent remove, disconnect, or otherwise render useless any safety device and or parts designed or affixed by us or fails to maintain and service equipment in a manner as advised.

Preferred Packaging provides a one-year warranty on parts, excluding shipping or freight costs for replacement parts. All warranty parts are shipped. Service Labor to install part is not covered under warranty.

1.3 WARRANTY EXCEPTIONS

The following parts are an exception to the general warranty list on page 10. Each part listed below shall carry a 30-day warranty unless designated otherwise.

- TEFLON
- SYLICON
- ELECTRIC WIRES
- INFEEED & DISCHARCHE CONVEYOR BELTS
- FUSES

1.4 WARNINGS

WARNINGS

Every effort has been taken to ensure your safety while operating this machine; however, there still remain certain risks. Do not allow this machine to be operated before informing all personnel of the following warnings.

WARNING.....

Do not tamper with the electrical wiring. Only use a licensed electrician for maintenance. Always disconnect the electrical power before attempting any maintenance to all electrical and/or moving parts.

WARNING.....

In order to prevent injury to personnel and/or machinery DO NOT INCREASE SETTINGS OR RATINGS ON EITHER ELECTRICAL OR MECHENICAL OVERLOAD SAFETY DEVICES.

WARNING.....

KEEP HANDS AWAY FROM MOVING CONVEYORS AND ASSEMBLIES. Conveyor belts that have become worn or frayed are capable of being hazardous. They should be replaced promptly.

WARNING.....

NEVER OPERATE THIS OR ANY MOVING EQUIPMENT WITHOUT ALL CONVERS AND GUARDS IN PLACE. The internal mechanism of most packaging machinery contains numerous shear, pinch, and inrunning nip points, many of witch are capable of causing severe injury and/or permanent disfigurement.

WARNING.....

To minimize the potential for personnel injury, always be sure that machine operators and others working on the machinery are properly trained in the correct usage of the equipment and properly instructed regarding the safety procedures for operation.

WARNING.....

Heat sealing arms and sealing jaws on packaging machinery can become very warm after a period of use. **KEEP HANDS AWAY WHILE IN OPERATION AND USE CAUTION IF THE MACHINE HAS BEEN RUNNING RECENTLY.**

WARNING.....

ANY MODIFICATIONS TO EITHER THE ELECTRICAL CIRCUITRY OR THE MECHANICAL ASSEMBLIES OF THE MACHINERY WILL VOID ANY WARRANTIES ASSOCIATED WITH THIS EQUIPMENT. Such modifications may introduce hazards that would not otherwise be associated with this machinery. Preferred Packaging will not be responsible for any consequences resulting from such unauthorized modifications.

WARNING.....

The use of certain types of plastic films in sealing and/or shrinking equipment may result in the release of **HAZARDOUS FUMES** due to the degradation of the film at high temperatures. Before using any plastic film in this equipment, the manufacturer or supplier of the film should be contacted for specific information concerning the potential release of hazardous fumes. **ADEQUATE VENTILATION MUST BE PROVIDED AT ALL TIMES.**

WARNING.....

It is important that the machine operator turn off the Main Power Switch when he/she has finished operating the unit.

1.5 HOW TO USE THIS MANUAL

Consultation of the manual

The consultation of this manual is made easy by the insertion, in the first pages, of a summary, which allows those consulting it to immediately locate the topic required .

- This manual constitutes integral part of the machine and must be kept for as long as the machine is in the user's possession or, if that be the case, handed over to any other user or subsequent owner
- Do not remove or rewrite parts of this manual for any reason
- Ensure that any amendment to this manual sent to you is incorporated in the manual itself
- Use this manual in a way that will not damage all or part of its contents

Please read this manual carefully and refer to it for information on the care and use of you Preferred Packaging equipment

Attention is directed to the warranty. The terms and conditions of this warranty apply only to unmodified units.

Any unauthorized modifications to the equipment automatically voids this warranty.

Any updating or integration of the manual are to be considered as integral parts of the manual. We would like to thank you in advance for all the suggestions that you may want to forward to us in order to bring about further improvements to the machine.

1.6 LEGAL REFERENCES

The automatic handle applicator complies with the provisions of Law which transpose the following European Directives :

- 2006/42/EC
- 2006/95/EC
- 2004/108/EC
- EN ISO 12100-1
- EN ISO 12100-2
- EN ISO 13857
- CEI EN 60204-1
- EN ISO 13850
- EN 349
- EN ISO 14121-1
- EN 894 -1

- EN 894 -2
- EN 894 -3
- EN953
- CEI EN 61310:10

1.7 REMARK ON GENERAL SAFETY



Before starting to work with this machine the must see it that its personnel is informed in the following topics relative to the safe usage of the machine :

- Accident risk
- Device meant for the safety of the operator
- General accidents prevention rules as provided by international directives and by the laws of the country of destination

It is also necessary to comply the following general precautions :

- Do not install machine in areas posing a risk of explosion or fire
- Do not remove or modify the safety devices . In such case Preferred Packaging declines any responsibility on the safety of its machines
- Do not modify parts of the machine or install other devices without authorization by Preferred Packaging
- Do not operate with the machine with the fixed or mobile protections removed
- Do not open the fuse block with the mains on
- Do not intervene on switches , valves or sensors without authorization
- Do not intervene on moving parts even without the aid of objects or tools
- Do not manually oil or grease the moving parts with the machine activated or in cycle
- Before carrying out any work on the electrical installation make you sure that the voltage has been disconnected
- After an adjustment or security operation, restore the state of the machine with active protection

ATTENTION !



The operator , the maintenance and cleaning personnel must scrupulously adhere to both regulation for the prevention of accident and the safety regulations , warnings and general rules concerning the safety included in this manual.

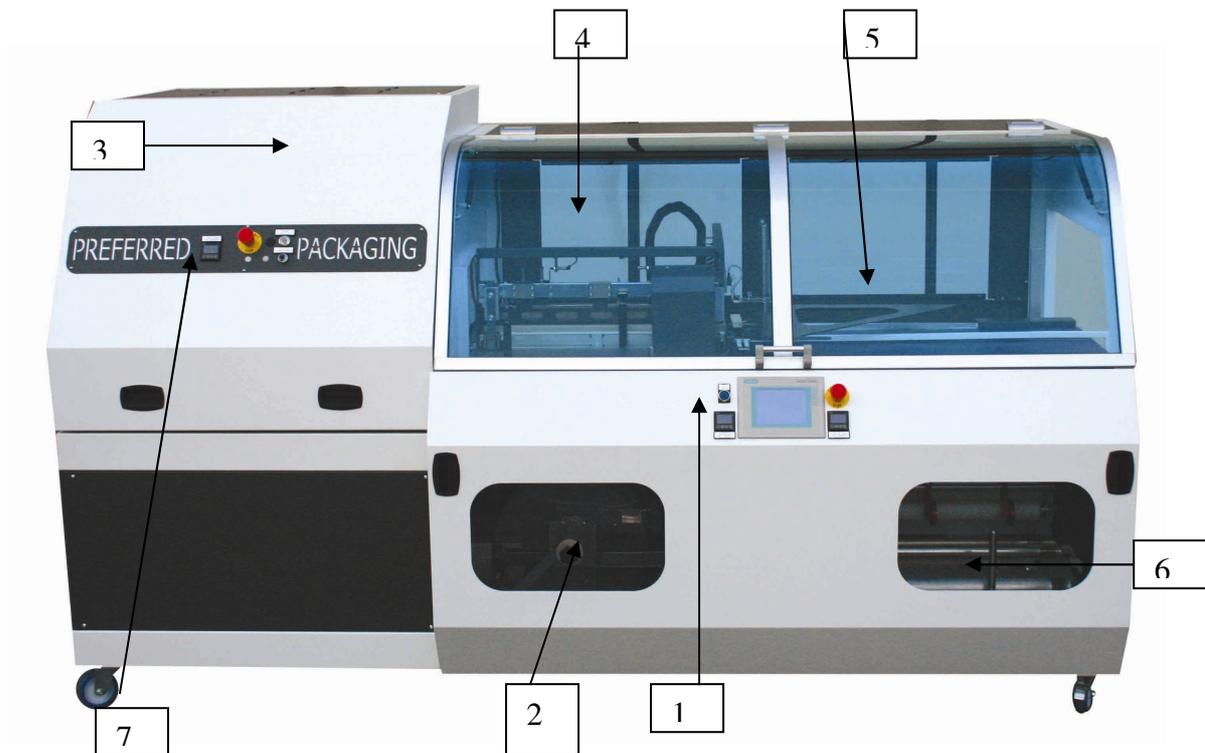
**During maintenance or repair work on the machine, the latter has to be shout down .
Make sure the switches are not re-inserted by unauthorized personnel.**

1.8 SYMBOL LEGEND

	ATTENTION: READ CAREFULLY BEFORE OPERATING
	DANGER OF ELECTROCUTION: HIGH VOLTAGE ZONE
	DANGER OF ELECTROCUTION: EARTHING IS COMPULSORY
	DANGER OF ELECTROCUTION: REMOVE VOLTAGE BEFORE PERFORMING THE INDICATED OPERATIONS
	DANGER OF BURNING DUE TO HIGH TEMPERATURE SURFACES
	WARNING! DON'T TOUCH
	DANGER OF TRAPPING BETWEEN MECHANICAL MEMBERS
	DANGER OF SHEARING. DANGER OF INJURY
	WARNING! BEFORE OPERATING, CHECK THAT THE MACHINE TYPE IS THE ONE THAT HAS BEEN BOUGHT

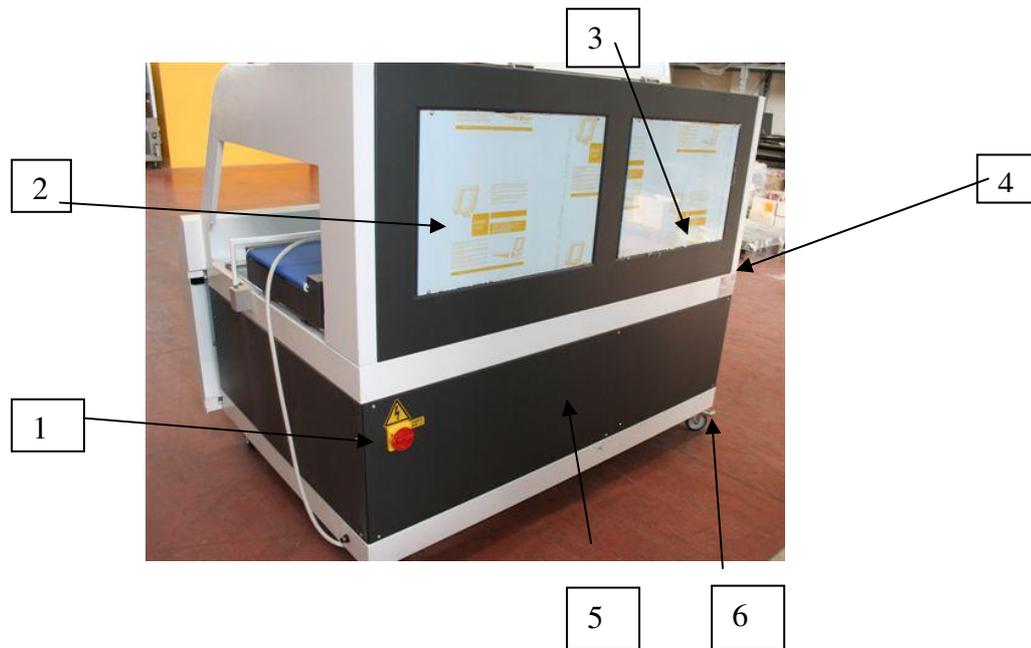
2.1 MACHINE'S VIEW & INSTALLATION

MACHINE'S FRONT VIEW



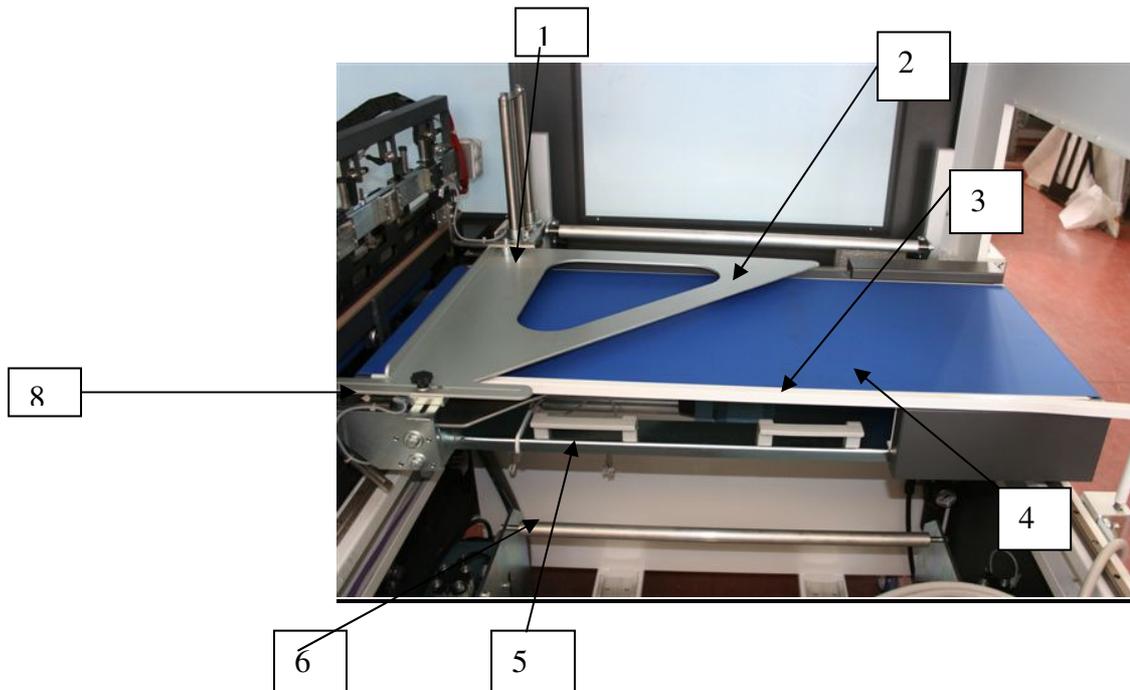
	<u>Description</u>	<u>Qty</u>
1.	Main control Panel	1
2.	Film Scrap safety door	1
3.	Shrink Tunnel	1
4.	Seal area safety cover	1
5.	Infeed safety cover	1
6.	Dispenser unit safety cover	1
7.	Tunnel electrical components front panel	1

MACHINE'S REAR VIEW



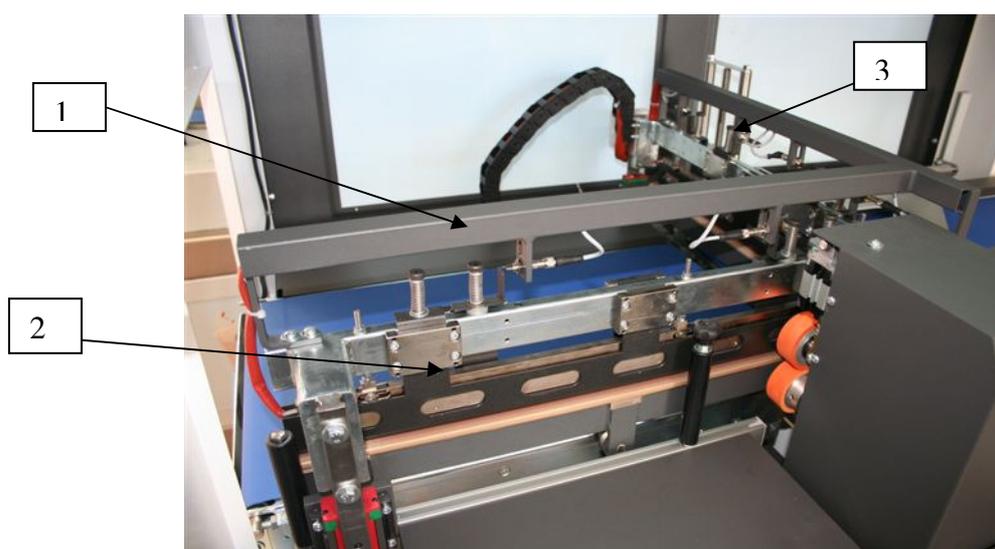
	<u>Description</u>	<u>Qty</u>
1.	Main switch	1
2.	Left rear lexan panel	1
3.	Right rear lexan panel	1
4.	Name plate with serial number	1
5.	Rear mechanical access panel for tunnel	1
6.	casters	4

MACHINE'S INFEED CONVEYOR



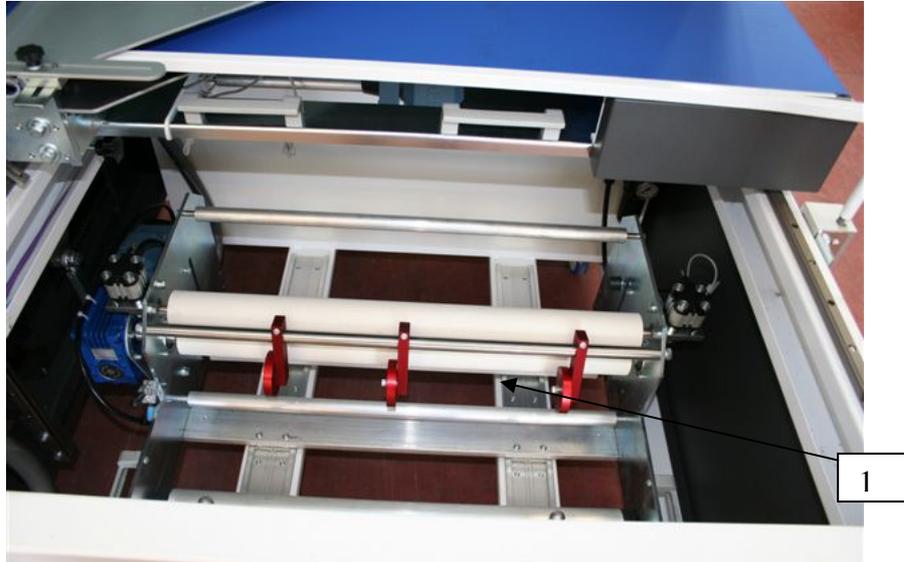
	<u>Description</u>	<u>Qty</u>
1.	Adjustable inverting triangle	2
2.	Right side motor cover	1
3.	Product guide bar	1
4.	Infeed conveyor belt	1
5.	Handles to adjust infeed conveyor	2
6.	Film lifter bar	1
7.	Horizontal photo eye	1

MACHINE'S SEAL AREA



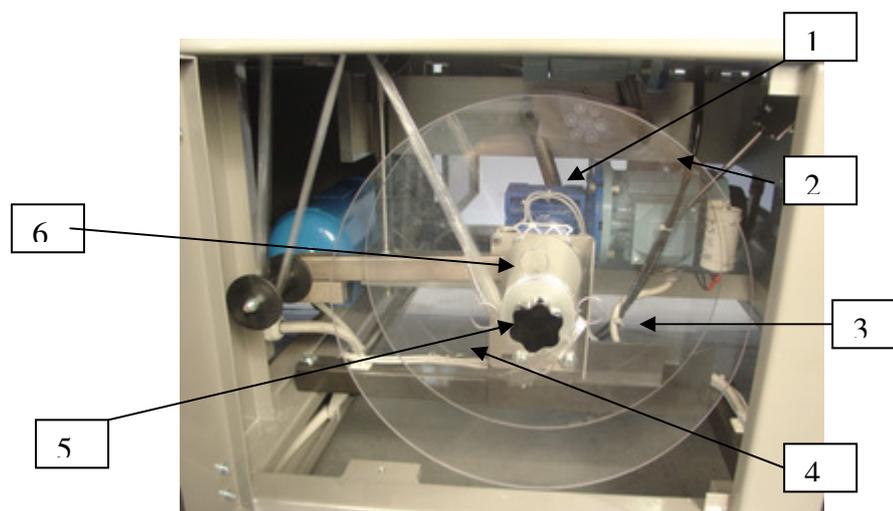
Description	Qty
1. Safety sensors	4
2. Front (Long side) seal bar	1
3. Side (short) seal bar	1

MACHINE'S FILM DISPENSER UNIT



Description	Qty
1. Pin wheel hole punch	3
2. Film roll guides	2
3. Film cradle roller	2
4. Film roll position	1

MACHINE'S FILM WIND UP SCRAP UNIT



	Description	Qty
1.	Scrap drive motor	1
2.	Scrap full alarm	1
3.	Lexan covers	2
4.	Locking Knob	1
5.	Washer	1
6.	Tapered cone	1

2.2 MACHINE'S TURN ON POWER-ENERGY SUPPLY

Power



Main power switch

Turn on Main switch in the machine rear cover



Off Position



On Position

Note: Make sure to check incoming voltage. Make sure you do not have low voltage coming into machine.

MACHINE'S TURN ON AIR CONNECTION



Connect air line to pressure regulator. Air gauge should be set at 6 bars = 80 PSI.

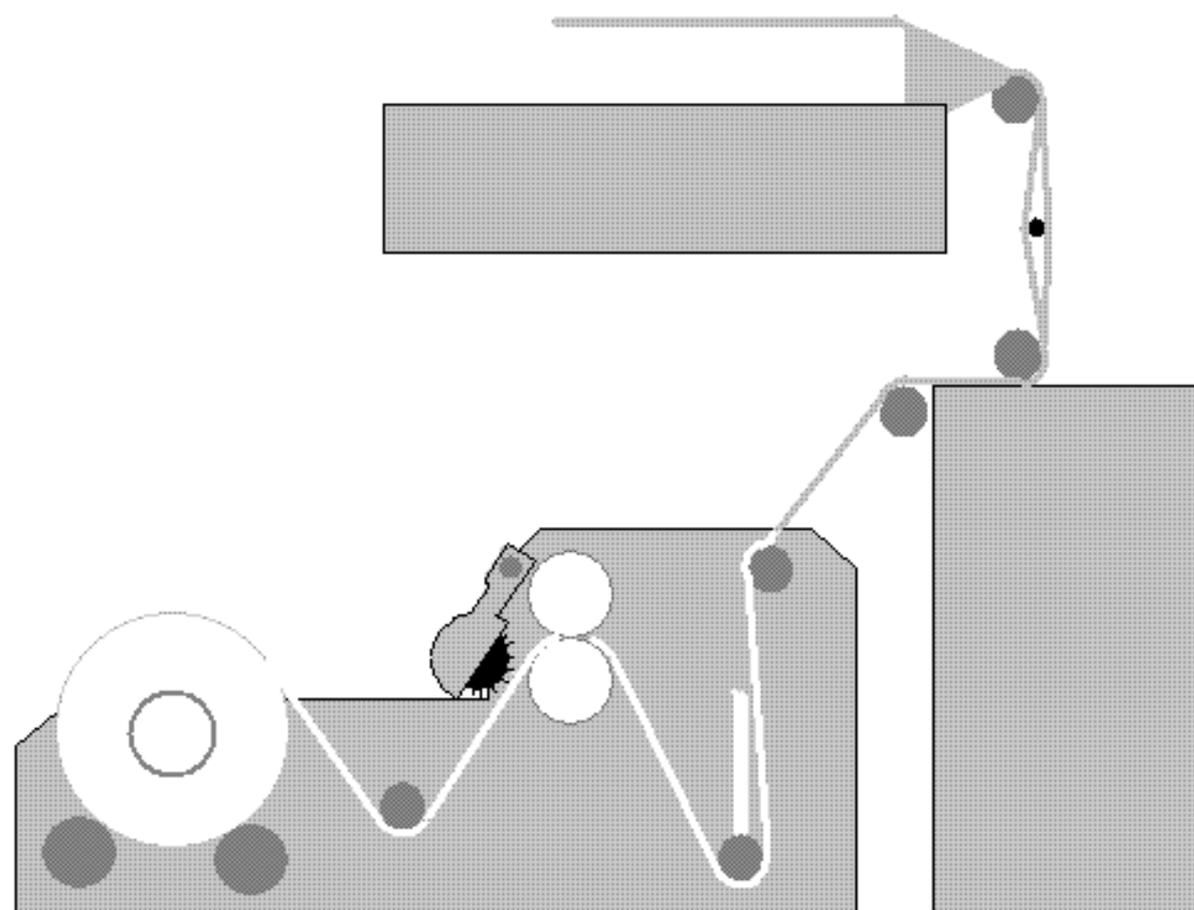
MACHINE'S TURN ON TOUCH SCREEN



1. **Start switch**- Starts the machine for automatic production. The push button is illuminated when depressed enables the machine to operate in manual mode.
2. **Emergency Stop switch**- Disables the machine in automatic mode.
3. **Siemens touch screen**- Operation interface with machine to set all machine parameters.
is on.
4. **Cross Seal** digital temperature control
5. **Side Seal** digital temperature

2.3 FILM THREADING

MACHINE'S TURN ON FILM FEEDING



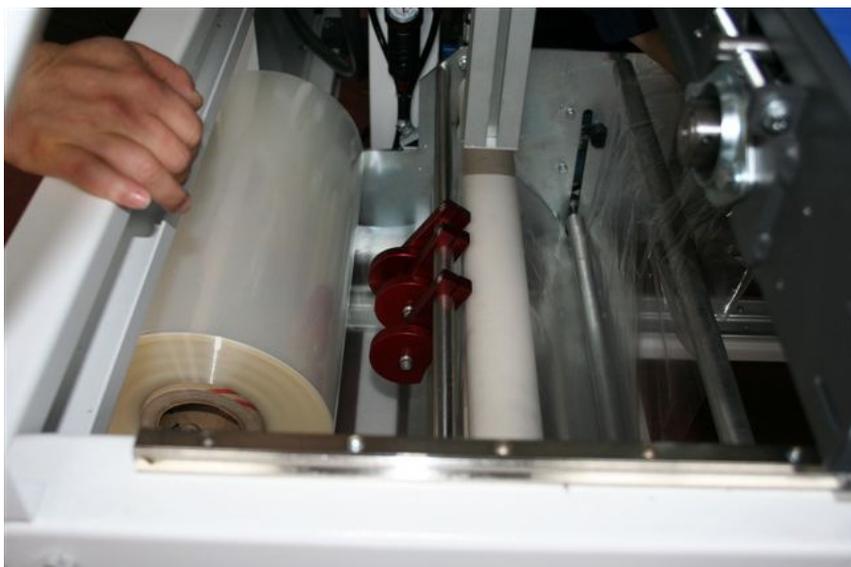
FILM LOADING AND THREADING UP TO INVERTING HEAD

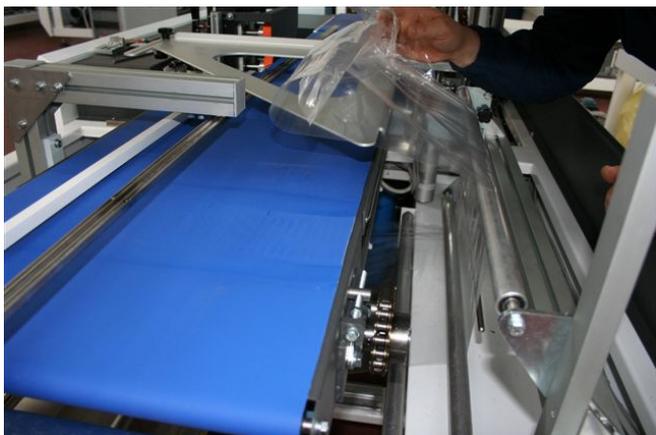




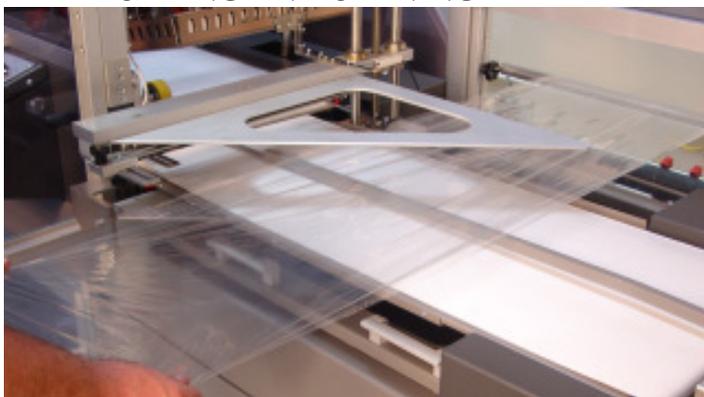


PRESS MANUAL MODE





FILM PULLING AND OPENING





FILM FEEDING INSIDE SIDE ROTARY WHEELS AND MANUAL SEAL



Using left hand move sheet from top side around the end of infeed conveyor going underneath conveyor and pull toward front of machine.



Pull sheet all the way toward operator side of the machine.



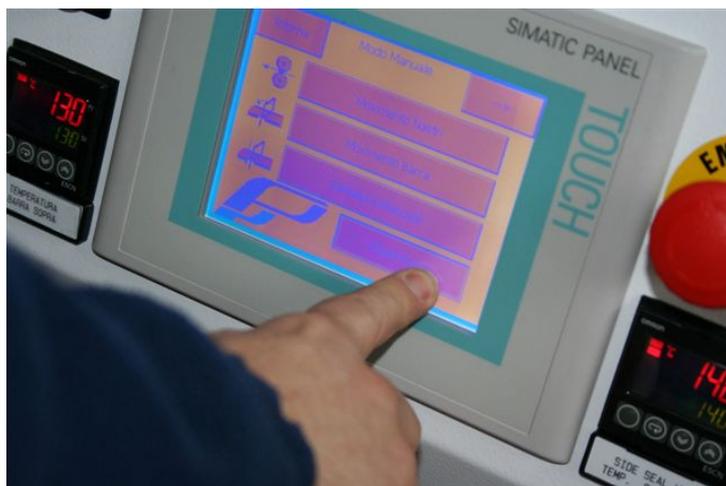
Now go back to inverting triangle and place top of sheet over top inverting triangle.



Open Wheels



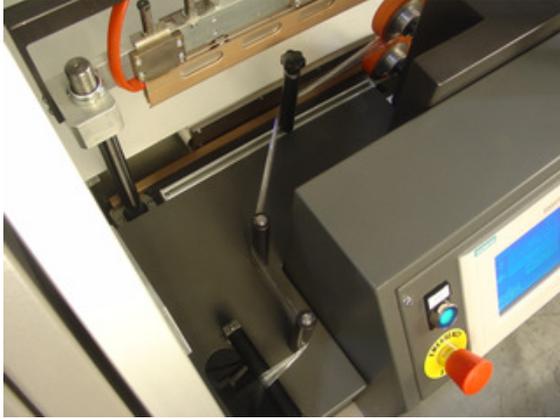
From the front of the machine grab both top and bottom sheets and feed into drive wheels



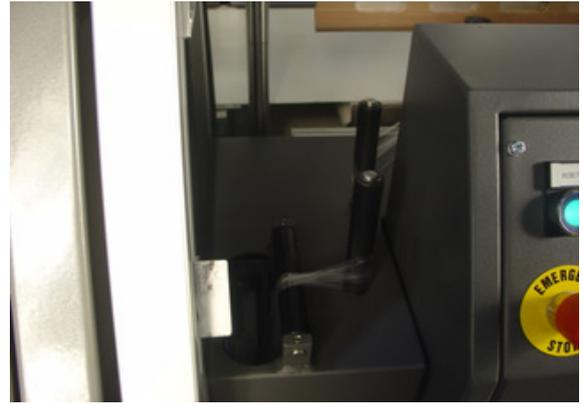
Close wheels



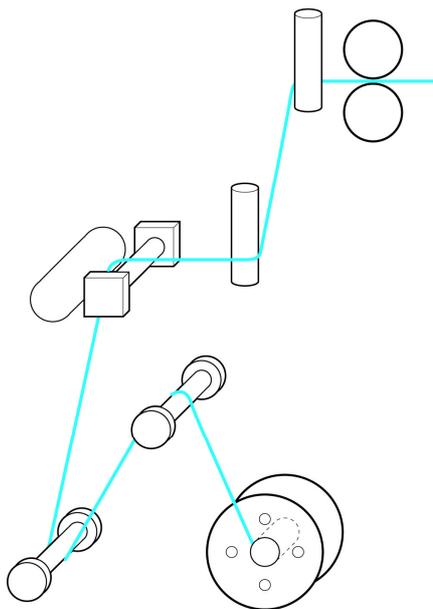
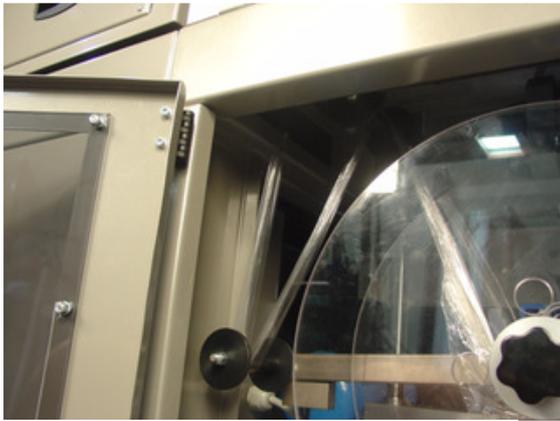
Jogging- conveyors movement in manual
MANUAL SEAL
ADJUST AUTOMATIC SETTINGS
START IN AUTOMATIC

MACHINE'S TURN ON FILM WIND UP

After having advanced the manual film feed several times take the excess film and feed through slot in scrap holder.



Continue feeding film over roller and down toward scrap wheel.

**FILM SCRAP DIAGRAM**

3.1 MACHINE'S SET UP

TEMPERATURE ADJUSTMENT

Set Digital Temperature Controls



New version



You may increase the temperature by pressing the up arrows key or decrease by pressing the down arrow key. The two buttons to the right are for programming functions only – Do Not Touch!

Important Notice

Once the machine is turned on it will require approximately 10-12 minutes for the temperature controllers to reach a set temperature of 300 to 400 degrees.

MANUAL MODE TOUCH SCREEN



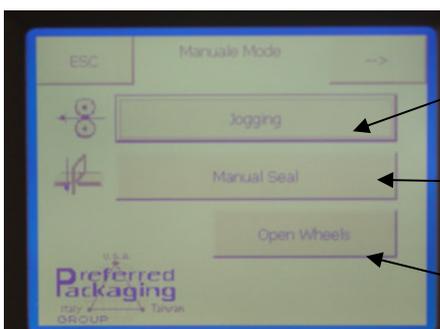
Operate in the touch screen



Main screen when machine powers up from here you can select the language.



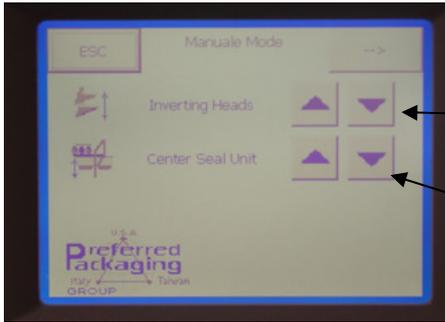
Manual mode=Allows operator to make manual adjustments to machine.



Jogging – Manually jog machine and side seal

Manual seal – Manually activate cross seal bar

Open wheels- Opens film drive wheels manually



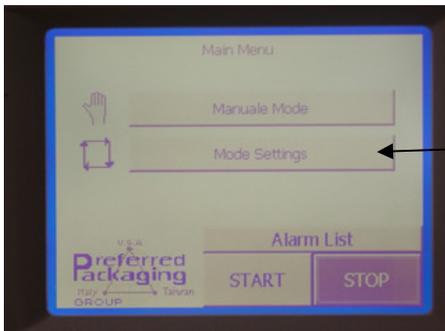
Inverting Heads- Manually adjust inverting triangle up or down
Center Seal Unit – Manually adjust center seal up or down

Control Screen – Product Selection



Main screen-Mode setting

Select next page



Mode Setting



Product Selection – Allows operator to select from 30 program memory

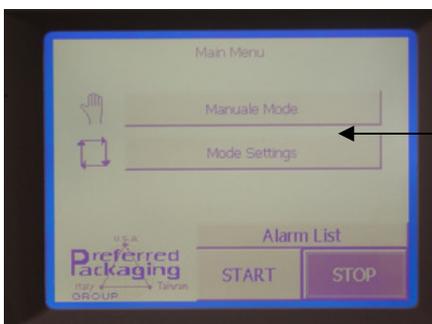


Access screen for selecting program memory and used for selecting numerical setting on machine

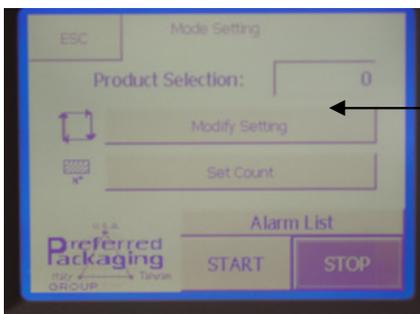
AUTOMATIC MODE



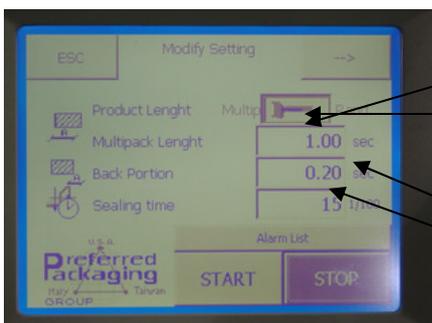
Select next page



Mode Setting



Modify Setting



Product Length-Actual length of product in millimeters

Multi-pack Length-Length of 2 or more products running at same time

Back Portion- Amount of film used on back of package

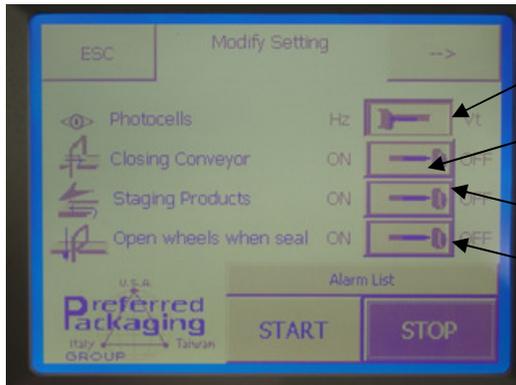
Sealing time- Amount of time cross seal stays down during seal.



Front Portion- Amount of film in front of package

Photocell Delay- Delays film feed after product is detected

Conveyor Speed- Speed of machine conveyors 0 to 25 meters per minute



Photocells-Select horizontal or vertical eyes

Closing Conveyor-On/Off conveyor will bridge gap over seal area to transfer small packages

Staging Products – Stops conveyor or belts when seal bar is activated

Open Wheels When Sealing-Drive wheels open when seal bar closes releasing film tension

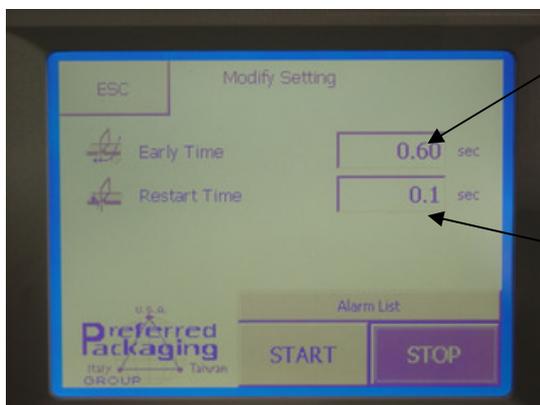


Multi-pack Unequal Product-On/off compensates for gap between two products

Tall Product Option-On/Off- reverses discharge conveyor

Unwind Before Seal- Powered film unwind advances to release film tension

Advanced-Select advanced – Go to Next Screen

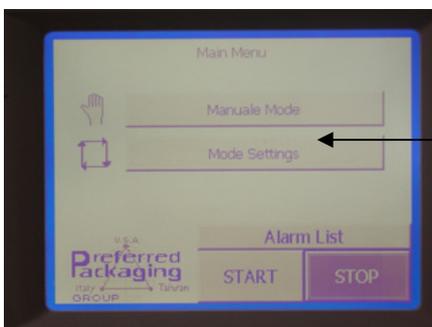


Early Time-If set on zero, package must clear seal bar area and photo eye before seal bar activates. Higher number seal bar will activate prior to package clearing seal bar.

Restart Time- In feed conveyor will feed product prior to cross seal bar reaching fully open position – lower number designates faster feed time. Higher number designated a slower feed time (will vary depending on height of package)

Set Machine Parameter- Set Count-Access to:

1. Counter
2. Final Count
3. Product Counted
4. Speed



Operator now has access to the following functions.

Counter-Off/off

Final Count-Total number of packages counted

Product Counted-Number of packages run per shift

Speed- # of packages per minute the machine is running

Machine Parameters – Alarm Modes



Select next screen



Select Alarm List



Sensor Malfunction: Safety sensors on seal head out of adjustment

Closing Conveyor Sensor



Low temperature on sealing bars will not allow the machine to operate

Set Product Length



Select Next Screen



Select Mode Settings



Select Modify Setting



Product Length: Multi-pack –Running same size packages back to back

Or

Random –Running unequal length packages back to back

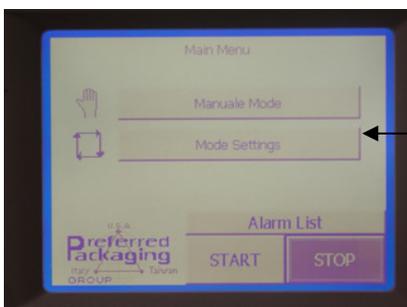


Multi-pack Length – Measure length of product in millimeters and add 5 mm to determine length of product. (1” – 25.4mm)

Set Bag Length



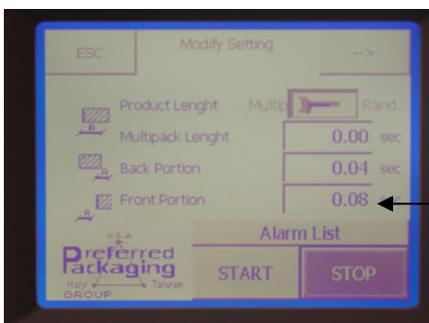
Select next screen



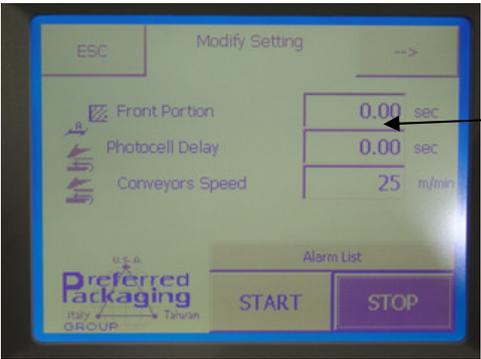
Select Mode Setting



Select Modify Setting



Back Portion- Amount of excess bag you have on back of the package.



Front Portion – Amount of excess bag you have on front of package

Set Seal Timer, Conveyor Speed

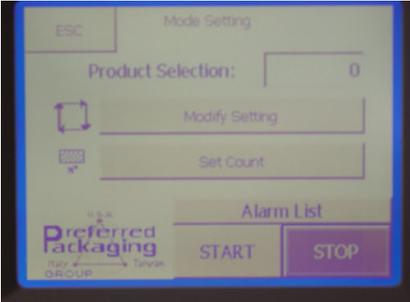


Main Screen

Select next screen



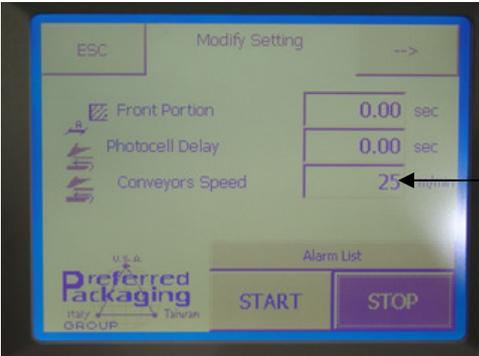
Select Mode Setting



Select Modify Setting



Seal Time- Amount of time cross seal stays down to seal film

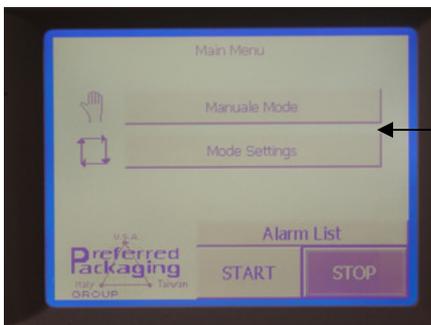


Conveyor Speed-From 0 to 25 meters per minute

Set Photocells, Closing Conveyor, Product Staging and Seal Bar Opening



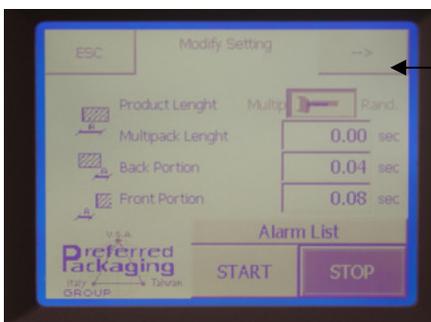
Select Next Screen



Mode Setting



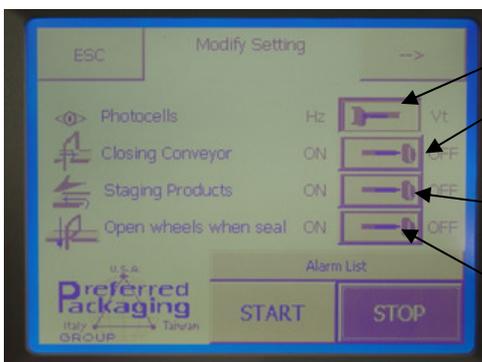
Select Modify Settings



Go to Next Page



Photocell Delay – Photo eye will delay feeding of film in the event of 2 or more products are traveling down infeed together and they are not lined up even.



Photocells – Select horizontal or vertical eyes.

Closing Conveyor- On/off discharge conveyor will bridge gap over seal pad to transfer small packages.

Staging Products- Infeed conveyor will stop when seal bar is in down position and start again when open.

Open wheels when seal – Opening wheels when sealing.

Set Multi-pack Unequal Product, Tall Product Option, Unwind before Seal, and Photocell Delay, Advanced settings of early time and restart time



Select Next Screen



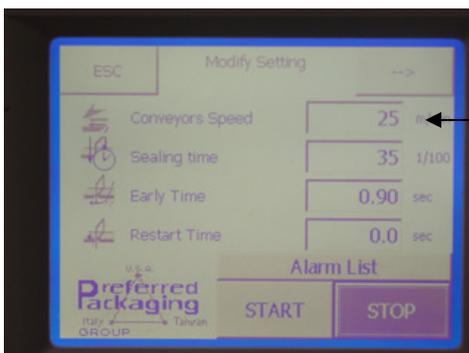
Select Mode Settings



Select Modify Settings



Go to next page



Go to Next Page



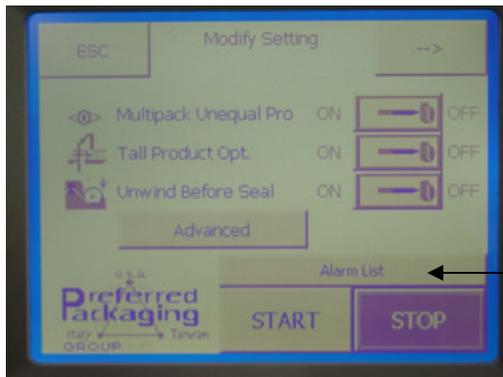
Go to Next Page



Multi-pack unequal Product-

Tall Product Option – Usually for packages 4” and higher, the discharge conveyor will reverse one of the packages is in the seal area in effect releasing film tension.

Unwind Before Seal – Powered film unwind will advance film to release film tension on tall packages



Select Advanced Mode



Early Time -If set on zero, package must clear seal bar area and photo eye before seal bar activates. Higher number seal bar will activate prior to package clearing seal bar.

Restart Time- Infeed conveyor will feed product prior to cross seal bar reaching fully open position – lower number designates faster feed time. Higher number designated a slower feed time (will vary depending on height of package)

3.2 SHRINK TUNNEL SETTINGS



HEATERS ON OFF-SWITCH ON OR OFF
TUNNEL'S TEMPERATURE CONTROL
TUNNEL'S CONVEYOR SPEED

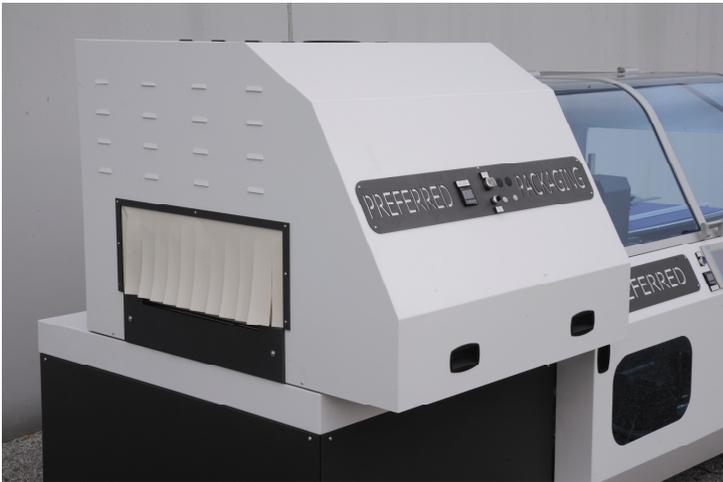
TO ADJUST THE TEMPERATURE:

You may increase the temperature by pressing the up arrows key or decrease by pressing the down arrow key. The two buttons to the right are for programming functions only – **Do Not Touch!**

Important Notice

Once the machine is turned on it will require approximately 10-12 minutes for the temperature controllers to reach a set temperature of 300 to 400 degrees

TO ADJUST THE CHAMBER'S POSITION



Use handles provided on front of tunnel to move chamber forward or backward allowing product to run down the center of chamber

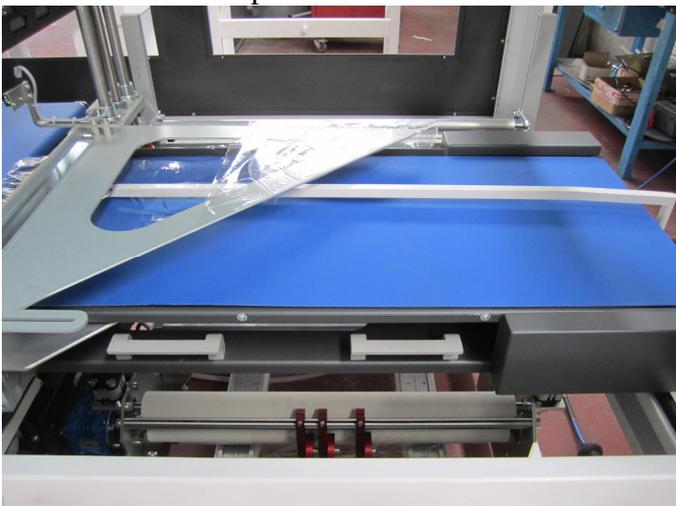
4.1 MACHINE'S GENERAL ADJUSTMENTS

Adjust Inverting Head For product height and width

Product Height



From main control panel use switch to raise or lower inverting triangle.



With product on infeed conveyor under inverting triangle adjust height.

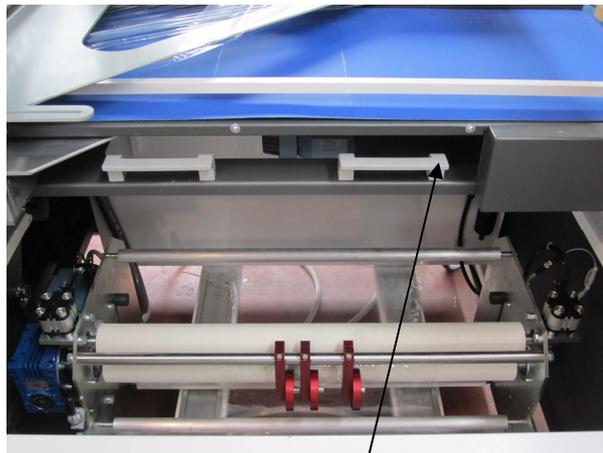
Inverting triangle should be set 1,3- to 2,5 cm higher than product.

Product Width Adjustment-Infeed Conveyor

Place product on infeed conveyor-always set product against back (right) edge of infeed conveyor.



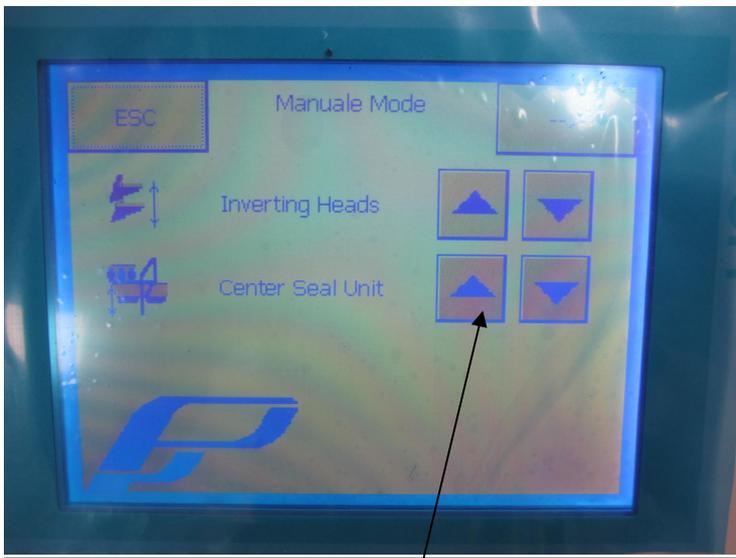
Using handles move conveyor in or outward until guide bar is near product.



WIDHT ADJUSTEMENT BY HANDLES

Adjust infeed conveyor so as guide bar is close to but not touching product. The taller the product the further away from guide bar product needs to be set.

Adjustment of Seal Head Movement –Up and Down- ON THE CS MODELS



CENTER SEALING motorized adjustment from the touch screen

Adjustments- Conveyor Belts



Belts are adjustable from both sides by loosening nut and turning hex bolt clockwise to tighten belt and counter clockwise to loosen belt.

Adjustments-Seal Head Safety Sensors



Safety sensor should be set 1/8" above metal bracket. Sensor gap should be set 3-4mm from bracket

Adjustments-Photo Cell



Top adjustment is for sensitivity minimum and maximum
Bottom adjustment is for photo cell delay

Adjustment-Air Pressure

Turn adjusted knob clockwise to increase pressure and counter clockwise to decrease air pressure. Pressure should be set at 6 bars (80 psi)



Adjustment-casters



Machine has threaded casters that can be adjusted
10 from 90 to 100 cm maximum- working height is 900+ /- 50

5.1 TROUBLE SHOOTING

Problem	Cause	Remedy
The cycle start key does not work	Power supply failure	Insert the plug in the socket. Turn the main switch
	Low voltage fuse has blown	Replace fuse
	No air in pneumatic circuit or pressure level has fallen below 3 (three) bar.	Insert the tube from the supply circuit in the fitting on the fitter unit. Turn the valve on the filter unit and check pressure by means of the gauge.
	Key is damaged	Replace key.
One of the electric motors Does not start	Thermal magnetic cutout tripped	Reset relay
	Fuse blown	Replace fuse
Knives do not seal film	Insufficient knife heating	Heater rod temperature control
	Knives do not adhere completely to contrast bars.	Align bars with blades
	Insufficient sealing time	Increase sealing time
	Knives are damaged or not secure	Replace knives or check fixture
Knives cut film instead of sealing.	Knife guards do not touch the film before blades	Adjust knife guard position (5 mm above the knives).
One of the knives does not heat up.	Resistance burnt out.	Replace resistance
	Thermocouple faulty	Replace thermocouple
	Timer faulty	Replace timer
Insufficient tunnel heating	One or more resistances faulty	Check resistances and replace faulty versions.
	Thermocouple faulty	Replace thermocouple
	Thermostat faulty	Replace thermostat

Warning!

If the problem persists, contact the manufacturer for assistance. 0039/0445580093 Preferred Packaging

Trouble Shooting-Internet Port Access



Optional software program allows remote troubleshooting from laptop. Program allows for complete troubleshooting and repair of machine electronics. See Preferred Packaging or your local distribution for the purchase of this optional software.

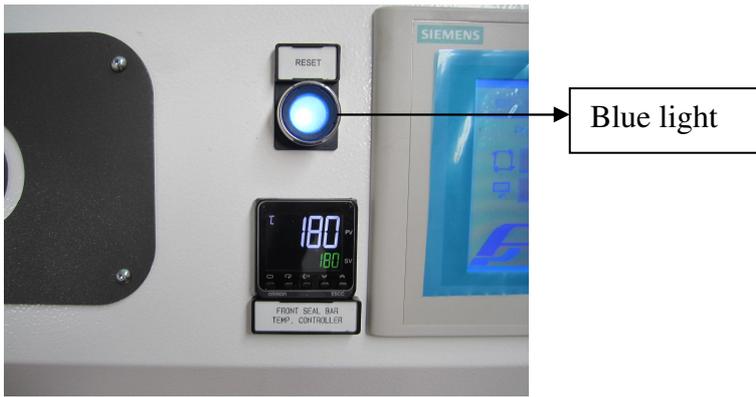
Trouble Shooting-Machine will not start or will not go into start mode



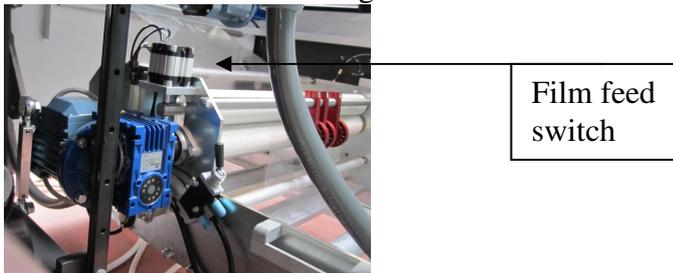
1. Turn power on
2. Please check all fuses.



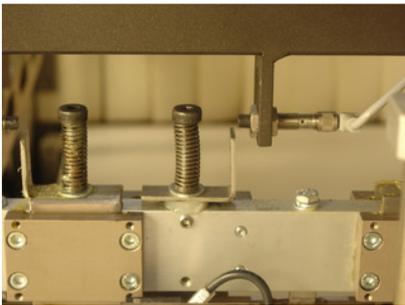
3. Check power to transformer



4. Make sure the indicator light on the blue reset switch is on to demonstrate that the reset switch is operating.



5. The film feed switch on the film rack that activates the film feed rollers is in the up position. Must be in down position to operate.



6. Seal bar safety switches are not activated



7. Make sure your air supply is connected and you have a minimum 80 psi. /6 Bar

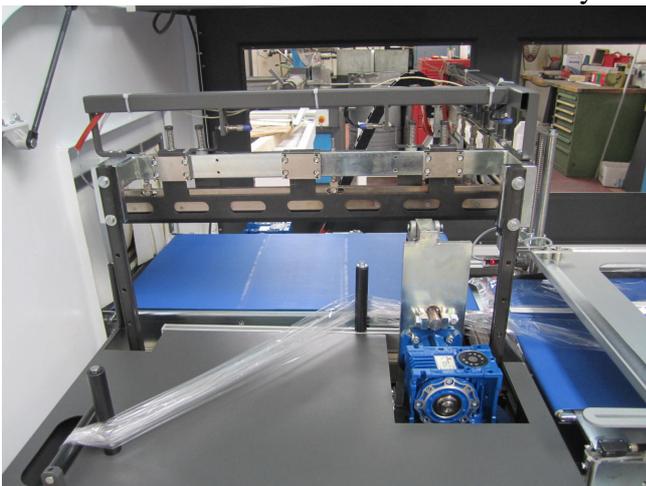


8. Make sure no emergency switches have been pressed or pushed.

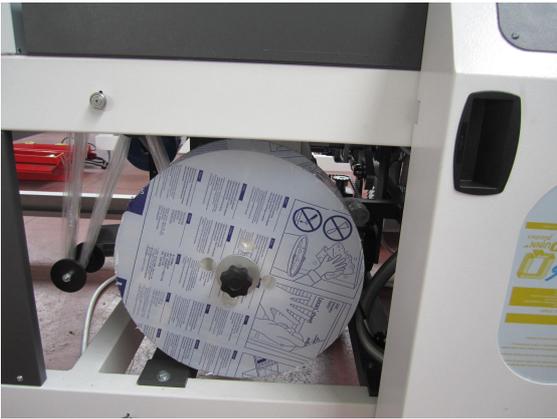
9. Make sure the three sensors on the main air cylinder are in correct position and have not moved. See page 65 for adjustments instructing.



10. Please check all inverters to make sure they are not in alarm mode.



11. Make sure the film is not broken



12. Check that scrap unwind is not full. – (Empty when full)

5.2 TROUBLE SHOOTING SOLUTION

Trouble Shooting examples

Machine will not seal (front seal)

1. Check all the fuses
2. Check the bottom seal pad and 2” 3mil Teflon tape are not worn. Replace if necessary.
3. Clean front and side seal bars with a dry cloth.
4. Make sure the seal bar is even and level.
5. Check the springs on the safety shields are not worn or damaged.
See page 63 for adjustment instructions
6. Check that the temperature controller is not set to high or to low.
7. Make sure the air supply has a minimum 80 psi./6 bar-low pressure will produce weak seals.
- 8.
9. Make sure there is correct spacing between the packages and the seal bar is not attempting to make a seal under a lot of film tension.
- 10.
11. Make sure the thermocouple and the temperature controller are not damaged.
12. Check that the heater cartridge is good
13. Make sure the solid state relay is not burned or damaged.
14. Check the wiring coming into the heater cartridge is not damaged or broken or no loose connection on the terminal.

Belts are not tracking (infeed belt, discharge belt)

1. Make sure you keep belts clean. Wipe clean everyday or every week depending upon environment the machine is operating in.
2. Makes sure no excess film or products are under the belt.
3. All conveyors belts are adjustable with two bolts at each end of conveyor by tightened or loosening it will track the belt to the right or to the left.
4. Make sure no bolts or brackets have come loose.
5. Make sure all the rollers are rolling freely and none of the bearings are damaged.

Trouble Shooting-No Heat to Shrink Tunnel- Check Fuses



1.Remove cover panel

2.Check Fuses FU-100



4.Remove tunnel curtains

5. Remove outer panel
6. Check Thermocouple- Replace if bad
- *Check for continuity at temperature controller

7. Remove heater bank cover

8. Check heater wire replace heater wire bad check if damaged or broken wires or terminal lugs



9. Replace Heater- If bad – check heater for continuity with wires removed

Troubleshooting- Tunnel Conveyor Not Running



Remove front tunnel lower access panel

1. Check Fuses FU-120
2. Check speed control board (replace if bad)
3. Remove rear access panel
4. Disconnect drive chain
5. Remove 4 bolts holding motor in place and disconnect wires- Replace motor if bad

Troubleshooting-Blower Motor Not Working



1. Open lower access
2. Check fuses FU-110
3. Check for voltage. If voltage present, motor may need to be replaced.
4. Remove 6 screws holding tunnel hood cover
5. Slide hood forward 30 cm



6. Remove blower motor from housing
7. Replace if bad

Troubleshooting-No Heat to Seal Bar



1. Open rear access panel

2. Check Fuses FU-60, FU-62 and FU-63

If fuses are bad, replace



3. Check solid state relays KS1 and KS2, check if voltage is present at -4 and 3+ (10 volt DC need to be present)

If not replace temperature controller

4. If 10 volt DC present then check L1N to U-62 or U-63 and 230volt should be present on solid state contactor if not present – replace solid state relays

5. Open front access cover to access seal bar

6. Check for resistance, across N-61 and U-62 and N-61 and U-63

If No Resistance is Present, Replace Heater Cartridge



1. Open pleaxi front cover front access panel
2. Remove Heater and thermocouple from seal bar –Replace if necessary

6.1 ROUTINE MAINTENANCE TABLE

Caution!

Routine maintenance must be performed by authorized and skilled personnel suitably qualified for electrical or mechanical repairs or adjustments according to the assigned tasks.

This type of machine is designed for minimal maintenance; however always observe the maintenance schedule set out below.

Maintenance Schedule

Frequency	Component	Operation
Daily	Machine	Remove all residue for product processing which may impair correct machine operation.
Daily	Knives	Clean surfaces that come into contact with the film, using cloths or paper. Never use objects that may damage the surfaces.
Every 2 weeks	Pneumatic circuit	Ensure that there are no leaks from fittings. Eliminate all condensate formed in the filter unit.
Every 500 hours of operation	Supports	Perform lubrication. Lubricant must correspond to the type MINERAL OIL ISO VG 220
Every 500 hours of operation	Gear couplings	Ensure sufficient lubrication
Every 6 months	Knives and contrast bars	Check the condition of the adhesive Teflon strips and the silicon plate.

--	--	--

Warning!

Reduction units are lubricated with “permanent” type synthetic oil and therefore do not require lubrication

Precautions and Setting to Maintenance Mode

Caution!

- Maintenance must be performed exclusively by skilled personnel familiar with the machine.
- Never carry out maintenance, lubrication or repairs when the machine is in operation and/or connected to the power supply.
- Never perform maintenance on moving parts.
- Following maintenance, always re-fit all guards to restore normal operating conditions.

Setting the Machine to Maintenance Mode

This procedure must be performed before all routine maintenance, cleaning and special maintenance, to shut off the machine from all power sources, as follows:

- Press the STOP pushbutton on the control panel;
- Press the emergency stop pushbutton on the control panel;
- Turn the main switch to “0” (OFF) on the electrical panel;
- Disconnect the machine from the main power supply by removing the plug connecting the electrical panel to the main socket;
- Shut off the air supply valve on the pneumatic circuit.

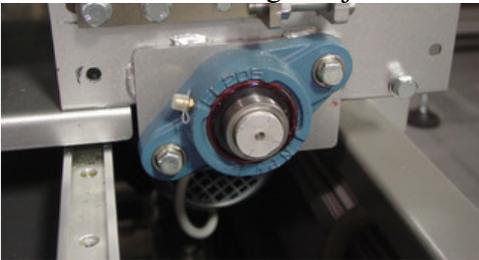
6.2 MANTAINENCE SEQUENCE

Lubrication

1. Tunnel conveyor chain
2. Seal Head Shafts

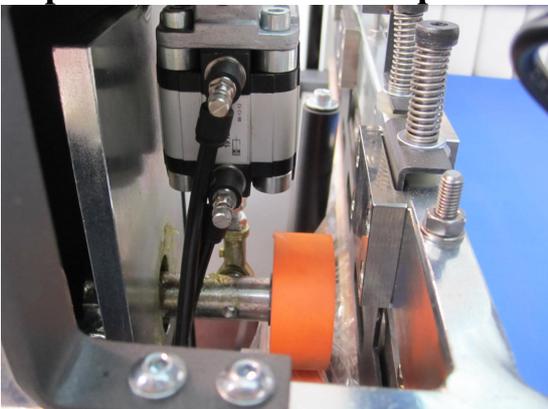
Use light grease on shafts to lubricate

3. Inverter triangle adjustment screw



Grease in feed and discharge conveyor bearings utilizing the male fitting on the bearing

Replacement of Teflon Tapes



1. Use 40mm Teflon tape on bottom seal pad
2. Use 120mm Teflon tape to cover safety shields

Replacement of Bottom Seal profile

1. Use 15mmx12mm soft white rubber pad for shrink films

Maintenance – Water in Lines

Use drain screw in bottom of bowl to force water out of system.

* Important- If water is always present in the line we urge you to install a dryer on the line to supply clean dry air to your machine. This is the single most important thing you can do to keep your equipment in good condition.

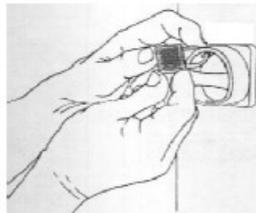
6.3 MAINTENANCE RESUME



Before starting any required maintenance, unless requested otherwise, use the pneumatic module to empty out any air contained in the system, then shut off the machine and remove the power plug from the electrical mains.



During all verification operations, it is mandatory to lock the main switch using a padlock . Isolate the pneumatic supply in the same way, always using a padlock.



Example of electric out service installation

Before starting with the maintenance it is also recommended to place a sign on the control panel or on the main electrical power switch with the following indication :

ATTENTION! DO NOT TOUCH – ASSISTANCE PERSONNEL IN SERVICE

LIST OF SAFETY COMPONENTS AND INSPECTION SCHEDULE

The following table includes a list of those components that due to their safety functions are to be considered fundamental and therefore require periodic verification .

DESCRIPTION	INSPECTION FREQUENCY
Main electrical isolator	12 months
Main pneumatic isolator	12 months
Protection against indirect contact (equipotential protection system)	6 months
Safety contactors	12 months
Visual inspection of the general condition of the machine's safety devices	6 months
Emergency buttons	6 months

6.1 NATURE AND FREQUENCY OF MAINTENANCE

DAILY MAINTENANCE CARD (16 HOURS OF WORK)	
GENERAL CLEANING	<ul style="list-style-type: none"> • Clean all the remains deposited on the passage rolls or belt conveyor • Clean the control system (photocell and sensor..)from dust and processing residue
CONVEYOR BELTS	<ul style="list-style-type: none"> • Remove any processing waste from conveyor belts
PRODUCTS	<ul style="list-style-type: none"> • It is recommended at the end of work to remove all the remains products
PNEUMATIC UNIT	<ul style="list-style-type: none"> • Check the pressure gauges to see the correct calibration of the pressure regulators installed

MONTHLY MAINTENANCE CARD (240 HOURS OF WORK)	
GENERAL CLEANING	<ul style="list-style-type: none"> • Clean the outside fixed and mobile guards of the machine • Use compressed air to clean the machine applicators • Clean the filters of all the suction devices installed
PNEUMATIC UNIT	<ul style="list-style-type: none"> • Check the efficiency and integrity of all the piping for compressed air
ELECTRIC AND ELECTRONIC UNIT	<ul style="list-style-type: none"> • Check the efficiency and integrity of all the electric and electronic components

Once a year, check also the presence and condition of the following :

- User and maintenance manual
- Pictograms stating obligations and prohibitions
- Pictograms essential for making machine adjustments
- Suitable safety labels on the power board
- Characteristics of the personal protection equipment suited to the type of work
