

SERVICE MANUAL



INT-20 2 Belt Fully Automatic Side Seal Machine

INSTRUCTIONS FOR OPERATION AND REPAIR OF THE
MODEL INT-20 2 BELT FULLY AUTOMATIC SIDE SEAL

Excel Packaging – USA

Instruction and Service Manual Int-20 2 Belt

Machine: Int-20 2 Belt Fully Automatic Side Seal Machine

Model: Int-20 2 Belt

Power: 220 Volt, 1 phase, 20 Amp

Air: 3 CFM @ 80 PSI

Machine Dimensions: 73"L x 49"W x 67"H

Machine Weight: 1,500 lbs

Serial #: _____

IMPORTANT - PLEASE READ THIS CAREFULLY

The development of a good safety program, that is rigidly enforced, is absolutely imperative when involved in the operation of industrial equipment. Our machinery is well designed and includes extremely important safety features. The part you the user play through proper installation and maintenance procedures is of far greater significance than our designs. **Only properly trained individuals following rigidly enforced safety rules, as recommended by A.N.S.I. and O.S.H.A., should be allowed to operate these machines.**

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Important Notice

Minimum air pressure required is 80psi

Normal operating air pressure range is 80-90 PSI

Air regulator is designed to withstand air pressure up to 145 PSI

Check you air compression line to make sure you supply clean & dry air to machine.

***If you have water in you lines you may cause premature damage to you machine. Install dryer on air line if required to supply clean and dry air to machine.**

Caution

This machine is not designed for explosion-proof applications. It is a standard model and therefore must never be installed or operated in areas subject to the risk of explosion.

Important Notice

1. The description and illustrations in this manual are not to be considered binding. Excel Packaging reserves the right to modify drawings, pictures details, or spare parts supplies at any time without notice for purposes of improvement in terms of design or sales.
2. The machine must be used exclusively for the purposes specified in design, any other use is to be considered improper and potentially hazardous which could void the warranty.
3. The warranty shall be rendered null and void in the event of
 - a. Failure to observe safety standards
 - b. Improper use of machine
 - c. Modifications made to machine without prior written consent from manufacturer.
4. Machine operators should not perform operations specified For maintenance engineers or qualified technicians. Mechanical engineers should not perform electrical repairs and like wise electrical engineers should not perform mechanical maintenance. Use of machine by personnel not familiar with this machine of instructions in this manual is strictly prohibited. Excel Packaging declines all liability for damage or physical injury caused by inadequate training of personnel.

General Warnings

It is extremely important to read this entire chapter as it contains important information regarding risks that personnel are subject to in the event of incorrect use of the machine.

These basic standards must be observed as well as specific standards applicable in the country of installation.

- Never use the machine for purposes other than as specified in the sales contract.
- Never allow unauthorized personnel to perform repairs or other operations on the machinery.
- The operator must be familiar with all warnings related to the tasks in hand and always be informed by the head of the site regarding associated risks.
- Ensure that all clothing is tight fitting, with particular reference to cuffs or other loose clothing.
- Always use suitable personal safety equipment such as gloves, safety footwear etc. as specified by accident prevention standards.
- Ensure that all operating areas and transit zones are kept clear, clean and adequately lit at all times.
- Eliminate all safety hazard conditions before using the machine and always notify the head of personnel of any malfunction.
- Never use the machine in the event of a fault
- Never tamper with safety devices or circuits.
- Never operate machinery with safety devices disabled or fixed guards removed.
- Never leave the machine unattended with guards disassemble or mounted incorrectly.
- Never perform modifications on the machine without prior authorization from the manufacturer.
- The electrical panel must remain closed during operation.
- The key to open the electrical panel must be kept by a specialized and authorized member of personnel.
- The manufacturer declines all liability for damage or physical injury caused by failure to observe safety standards.

Safety During Lifting and Installation

- Machine handling and loading onto means of transport must be performed exclusively.
- Transport and installation must be carried out by suitably skilled technical personnel.
- Keep the workplace clear and well lit at all times and ensure installation of a main power socket.
- Using suitable equipment, ensure conformity of the power distribution line and earthing plant.

Safety During Operation

1. Never approach moving parts or touch live components with your hands or other parts of your body.
2. Use of the machine other than as specified is strictly prohibited.
3. Inspections and adjustments of moving parts must be performed with relative guards fitted.
4. Never leave the machine unattended. If personnel must leave the workplace, notify the department head immediately.

Safety During Maintenance

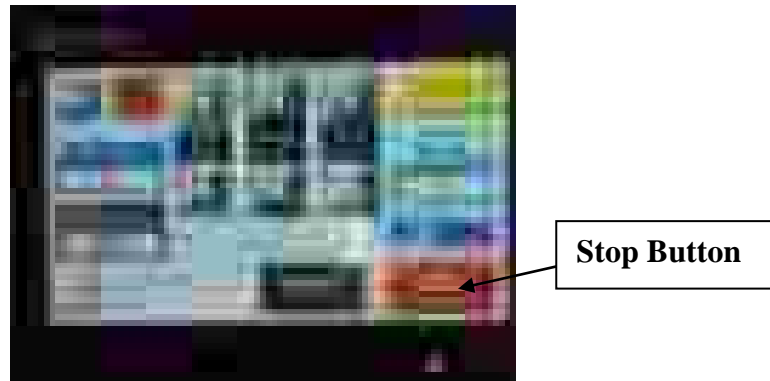
1. Always disconnect the machine from the power supply before performing maintenance or adjustments.
2. Never lubricate, repair or adjust machine parts during operation.
3. Never use matches, lighters or torches as means of lighting.
4. All electrical and mechanical adjustments must be performed by suitable qualified authorized personnel.
5. Never approach parts not perfectly secured to the machine with your hands or other parts of your body.
6. Always use safety equipment and clothing as specified by accident prevention standards.

Machine Safety's

Normal Shutdown

This procedure shuts down all operating functions on completion of the processing cycle.

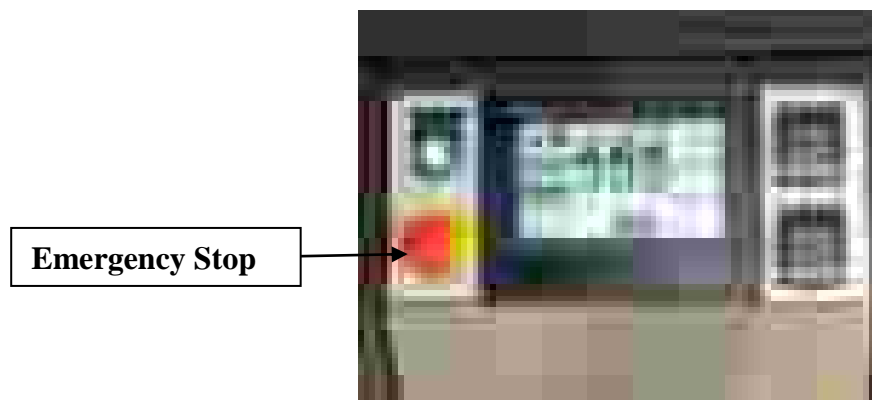
This is activated by means of the **STOP** pushbutton



Emergency Shutdown

This command shuts down all machine functions **Immediately** and shuts off power supply to all users in the event of an emergency.

This procedure is activated by pressing the **EMERGENCY Pushbutton.** The pushbutton remains engaged until released manually by the operator. To re-start the machine, repeat the start-up procedure.



Safety Switches



When the front door is opened the machine will shut off.



Main door has a safety switch with an adjustment screw, if the door is opened while machine is running the machine will automatically shut off.

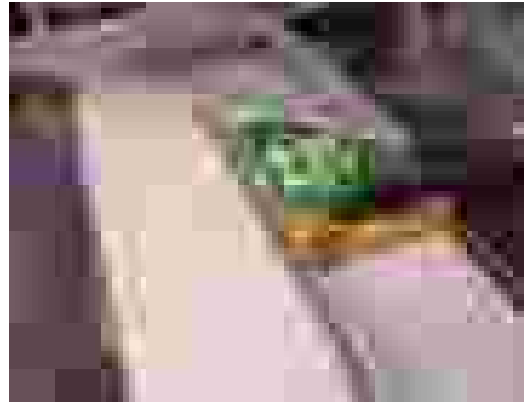
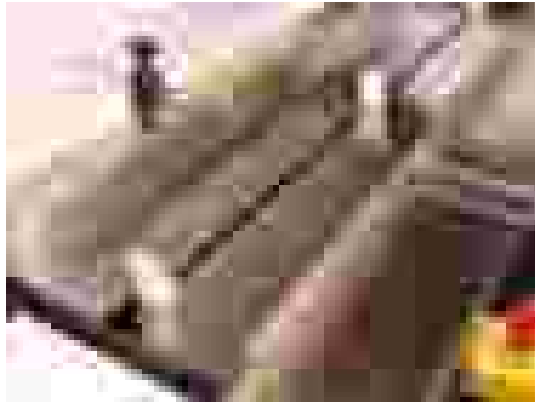
(This safety can be overridden during set up or maintenance by trained authorized personnel using password to access override feature)

Residual Risks

The machine does not feature high hazard risks; nevertheless the following warnings and precautions must be observed.

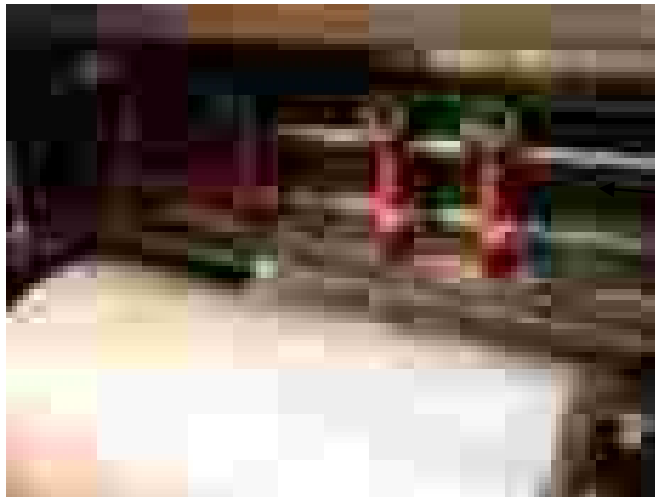
Dragging Hazard!

Hazard generated by moving elements (conveyor belts) in the event of contact during operation phases.



Dragging Hazard!

Hazard generated by moving elements (motor-driven rollers) in the event of contact during operation phases.



Motorized Rollers

Burn Hazard

Risk due to hot sealing knives for film.

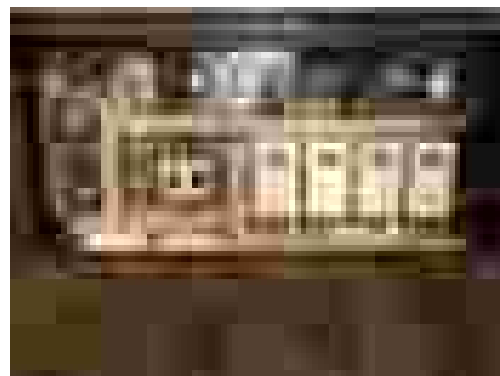
Before performing operations in these zones, turn heater switch off and wait for seal bar to cool.

Never perform operations without suitable personal protection equipment such as gloves and overalls.



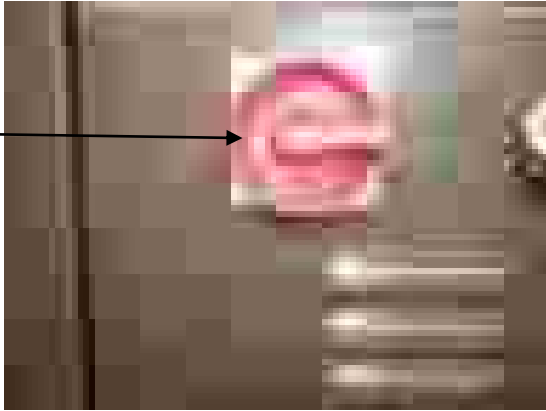
Electrical Shock Hazard

Risk due to live electrical parts inside electrical panel (on main switch terminal boards and door interlock input terminals).



Turn machine off prior to electrical work.

Off Position



Turn **off** position show here.

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 five (5) 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 5 Days of delivery date or carrier will not accept them.

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

IMPORTANT WARRANTY NOTICES

OPERATING AND MAINTENANCE MANUAL

The operating and maintenance manual has been carefully prepared to provide the user with all the information needed to properly install, operate, and maintain your Excel Packaging equipment.

Please read this manual carefully and refer to it for information on the care and use of your Excel Packaging equipment. It is recommended that additional copies be ordered for use by production, maintenance, and supervisory personnel. Although the design of this equipment incorporates safeguards to protect personnel, care should be used in operating, adjusting, and servicing.

Attention is directed to the warranty that accompanies all your Excel Packaging equipment. The terms and conditions of this warranty apply only to unmodified units. **Any unauthorized modifications to the equipment automatically voids this warranty.**

EXCEL PACKAGING

WARRANTY

Excel Packaging, 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 Excel Packaging.

This warranty is not transferable with any subsequent resale.

Defective parts under warranty must be returned to Excel Packaging freight prepaid. Excel Packaging's sole obligation and purchaser's sole remedy in the event of a warranty dispute shall be, at Excel Packaging's option, 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 Excel 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 Excel Packaging, 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.

Excel 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.

Excel 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.

Excel Packaging shall not be held liable for any damages arising out of 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 agents 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.

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

WARRANTY EXCEPTIONS

The following parts are an exception to the general warranty list on page 19-20. Each part listed below shall carry a **30-day warranty** unless designated otherwise.

INT-20 2 Belt Side Seal

1. Infeed and discharge Conveyor Belts
2. Fuses

The following sealer parts are considered to be consumable and not under warranty:

- 1. Silicone Sponge**
- 2. Teflon Tapes**

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 MECHANICAL 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 COVERS AND GUARDS IN PLACE. The internal mechanism of most packaging machinery contains numerous shear, pinch, and inrunning nip points, many of which 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. Excel Packaging will not be responsible for any consequences resulting from such unauthorized modifications.

WARNING.....

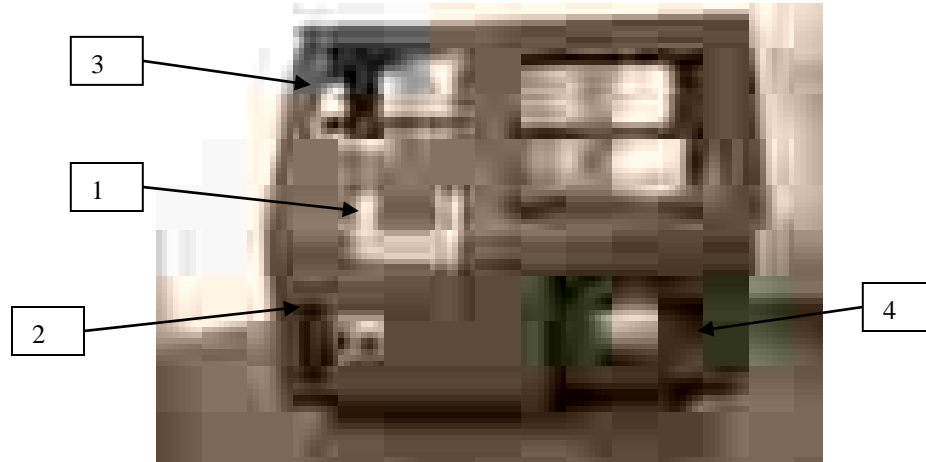
The use of certain types of plastic films in sealing and/or shrinking equipment may result in the release of HAZARDOUS FUMES due to the degradation of the film at high temperatures. Before using any plastic film in this equipment, the manufacturer or supplier of the film should be contacted for specific 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.

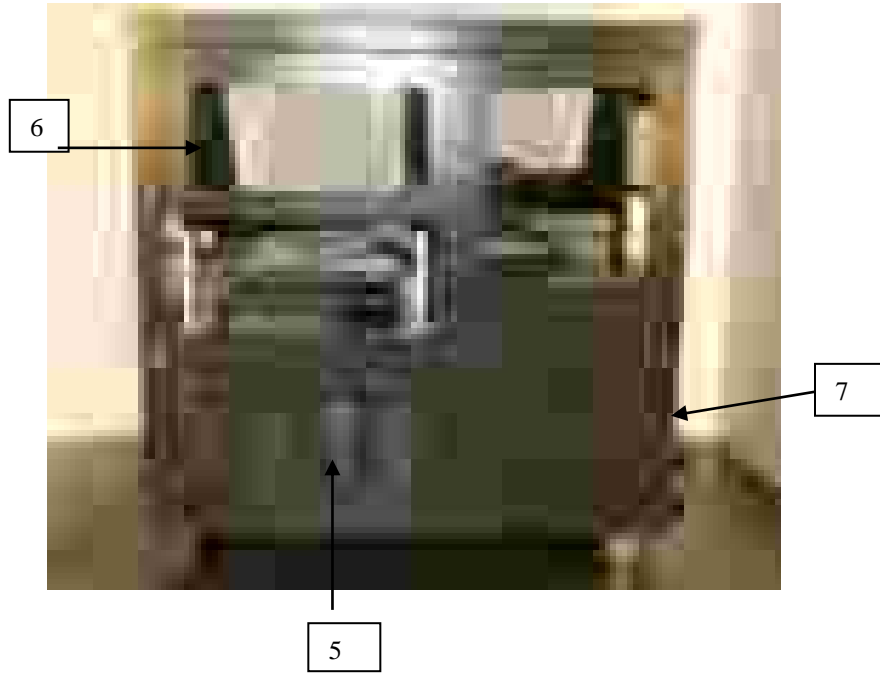
Machine Overview

INT-20 2 Belt Front View



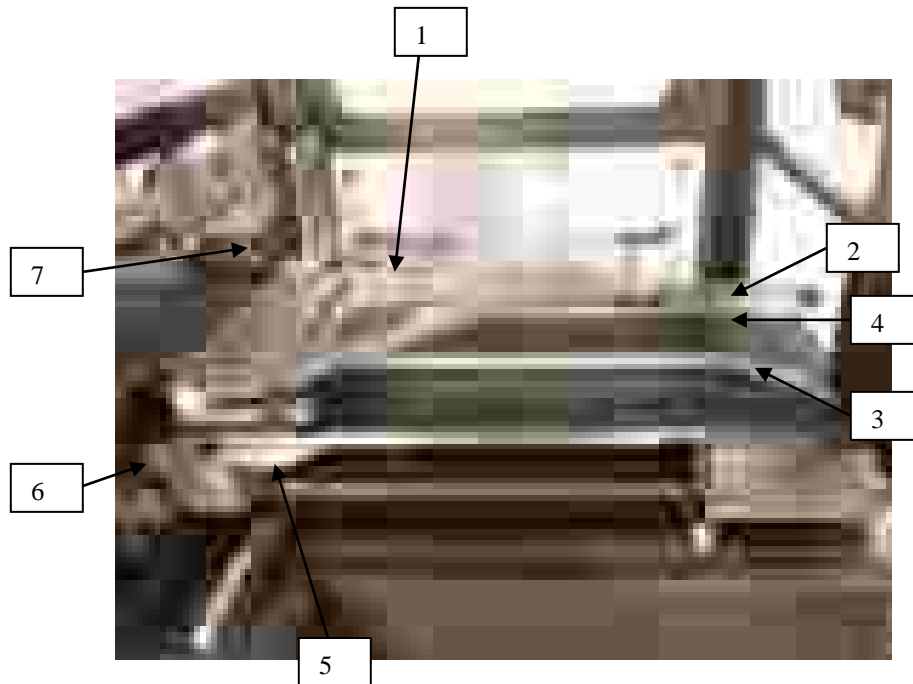
	<u>Description</u>	<u>Qty</u>
1.	Main control Panel	1
2.	Film Scrap safety door	1
3.	Main Safety Cover	1
4.	Film roll cradle	1

INT-20 Rear View



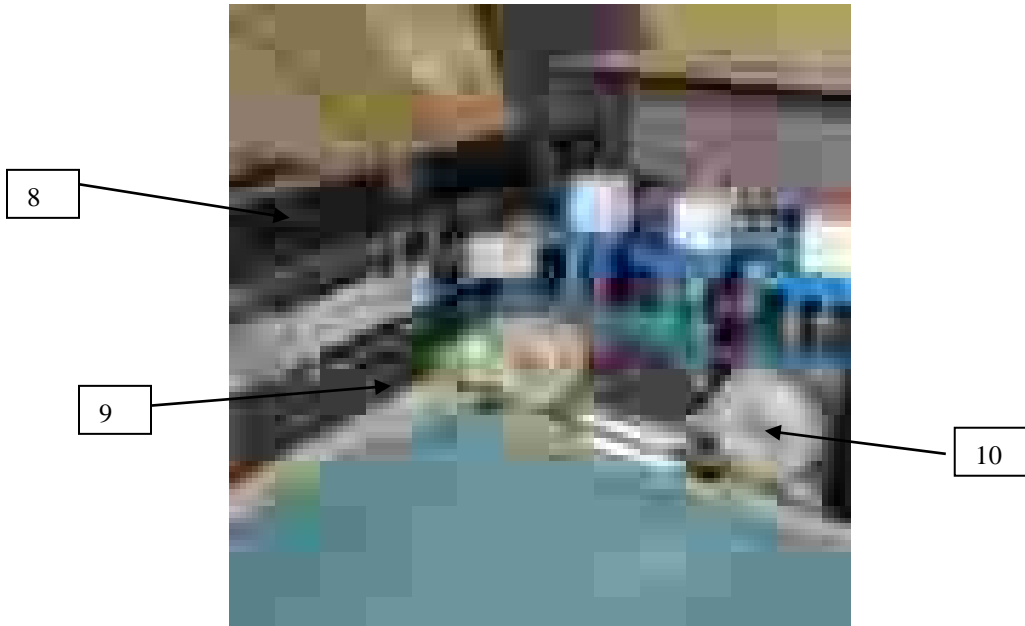
	<u>Description</u>	<u>Qty</u>
5.	Electrical panel	1
6.	Rear lexan panel	1
7.	Rear access panel	1

INT-20 Infeed Conveyor



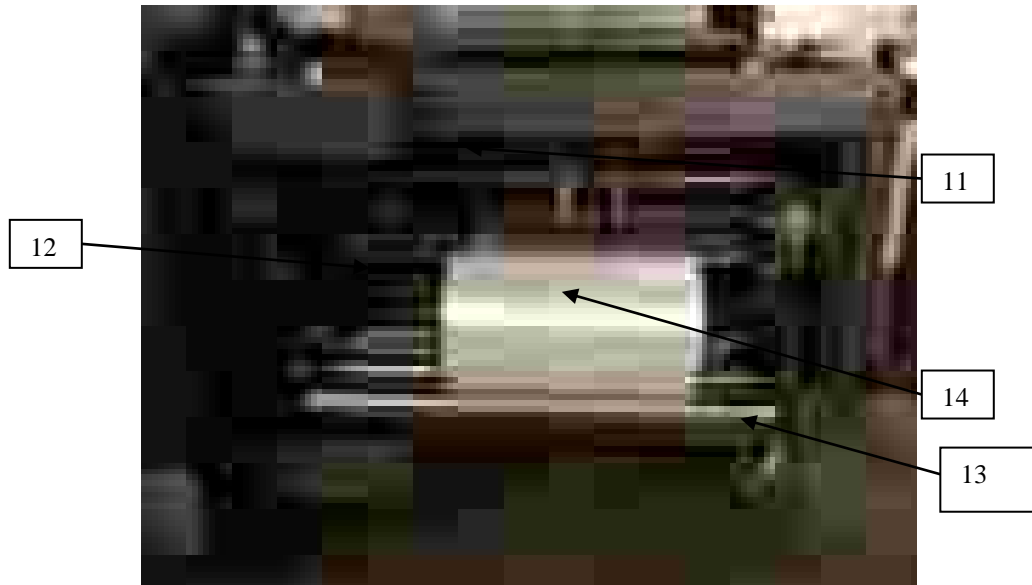
	<u>Description</u>	<u>Qty</u>
1.	Adjustable inverting triangle	2
2.	Right side motor cover	1
3.	Product guide bar	1
4.	Infeed conveyor belt	1
5.	Film lifter bar	1
6.	Horizontal photo eye	1
7.	Vertical photo eye	1

INT-20 Seal Area



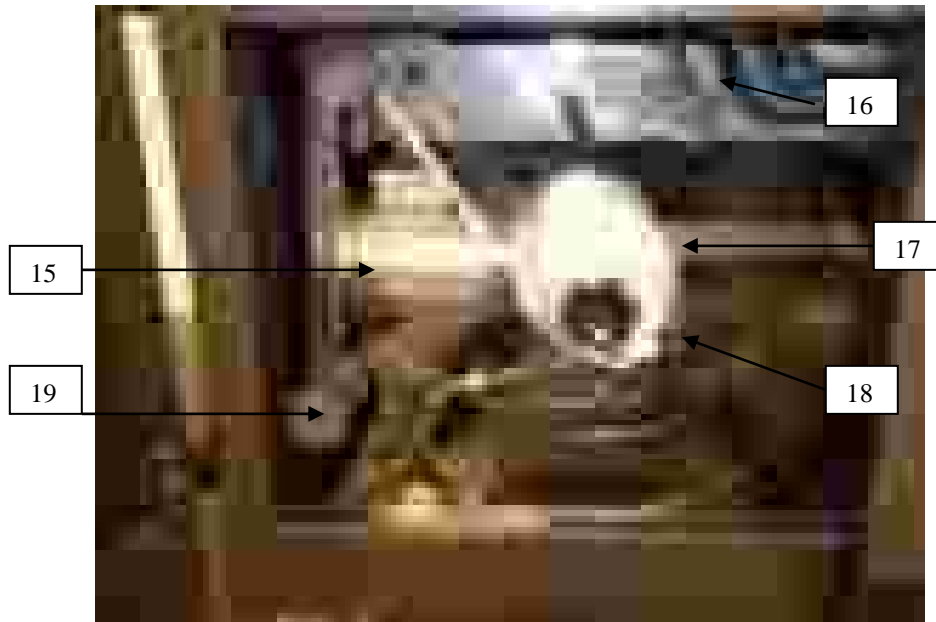
	<u>Description</u>	<u>Qty</u>
8.	Safety sensors	2
9.	Cross Seal Bar (20")	1
10.	Teflon Coated Side Seal Wheels	2

INT-20 Film Cradle



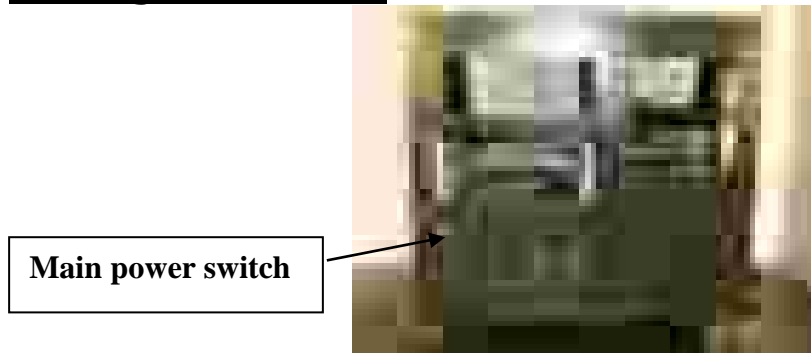
<u>Description</u>	<u>Qty</u>
11. Pin wheel hole punch	4
12. Film roll guides	2
13. Film cradle roller	2
14. Film roll	1

INT-20 Film Scrap Assembly

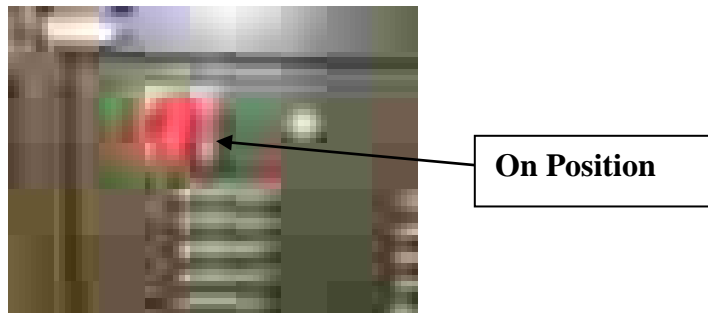


	<u>Description</u>	<u>Qty</u>
15.	Scrap drive motor	1
16.	Scrap full alarm	1
17.	Lexan covers	2
18.	Locking Knob	1
19.	Dancer Bar	

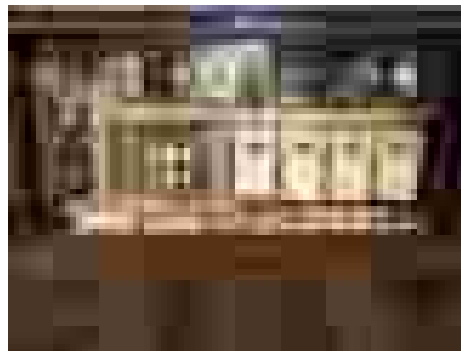
Turning Machine On



Turn on main power switch located on electrical access panel located at the rear of the machine.

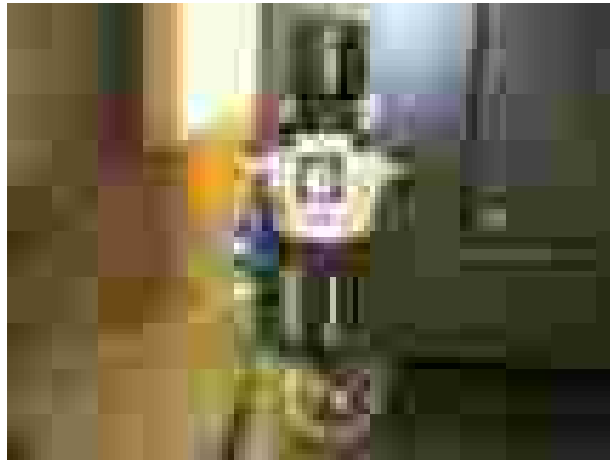


Note: Make sure to check incoming voltage. Make sure you do not have low voltage coming into machine. (Voltage should be 208-240volts.)



Air Hook Up

Air Connection



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

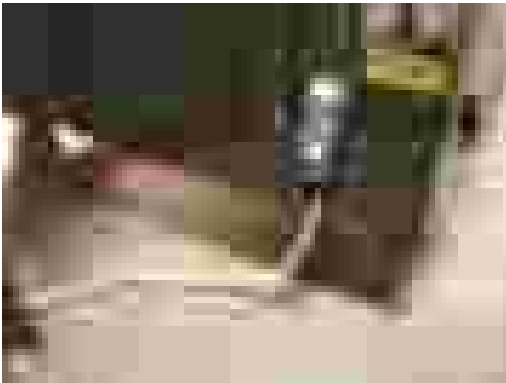
Normal operating pressure is 80-90 PSI

Air regulator is designed to operate at pressure up to 145 PSI max.

Installing Optional 3 or 6ft Infeed



Place infeed conveyor next to the machine, as close as possible. Infeeds are available as Flighted/lugged infeeds or belted. Adjust side guide rails to width of product and lock into position. Standard flight spacing is 17".



Connect quick disconnect power cable to machine power supply



Conveyor has its own VFD variable speed drive with on/off switch

Optional External Conveyor Mode



The External Optional Infeed conveyor can be run in four modes.

1. Conveyor-Off
2. Conveyor-On
3. Conveyor-Sync
4. Infeed Non-Stop

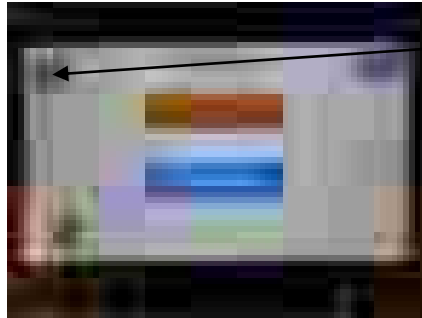
1. **Conveyor- Off:** Conveyor does not run at all.
2. **Conveyor- On:** Conveyor running at all times.
3. **Conveyor- Sync:** As infeed conveyor stops and starts intermittently external conveyor will stop and start with each package cycle of machine.
4. **Infeed Conveyor- Non Stop:** Will be in sync with machine conveyor.

Front Control Panel

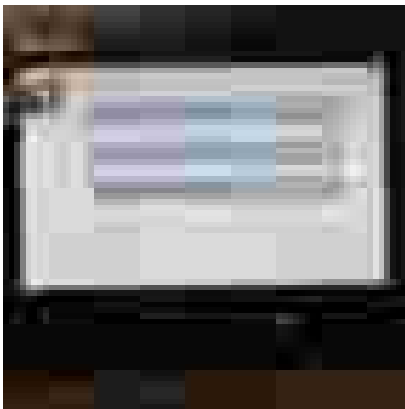


1. **Start Button:** Starts the machine for automatic production. The push button is illuminated when depressed enables the machine to operate in manual mode.
2. **Emergency Stop switch:** Disables the machine in automatic or manual mode.
3. **Delta Touch Screen:** Operation interface with machine to set all machine parameters.
4. **Cross Seal:** Digital temperature control
5. **Side Seal:** Digital temperature control

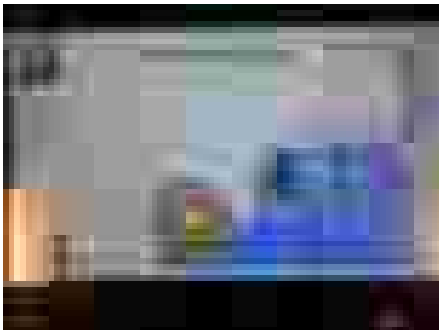
How to access film threading diagram and scrap wind up wheel



Find Main start up screen. Press top left folder icon.



Press either 1 for film threading or 2 for scrap wheel diagram or 3 for fuse list.



#1 **Film Threading Diagram**-The screen will show proper path for film threading.



2 **Scrap Wheel Threading Diagram.** Screen will show proper path for film scrap.



#3 **Fuse list and Description**

List of all machine fuses , fuse rating and what fuse is protecting.

INT-20 Film Threading Diagram



Mounting Film Roll



1. Open both doors (right and left) to access film roll



2. Adjust roll guides to width of film

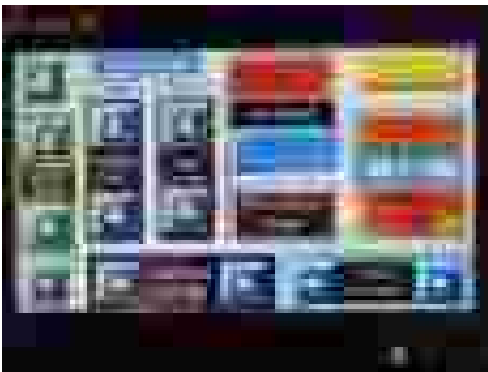


roll

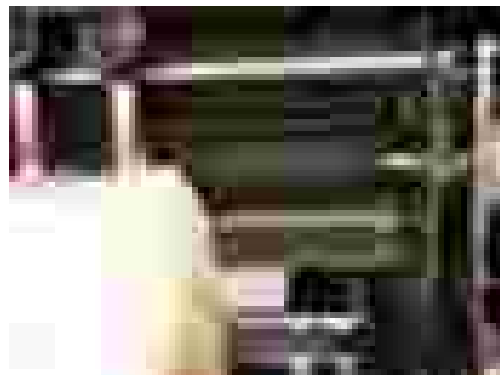
3. Pull film cradle toward operator to load film roll



4. Leave about 1/4" gap between Roll and guide rod



5. Enter manual screen & press **"Film Unwind Open"**

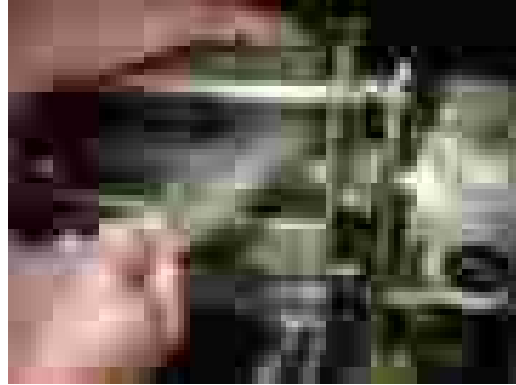


6. Film drive roller will open to allow Film to pass through.

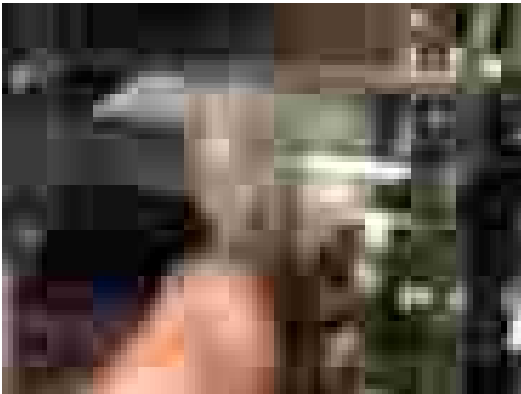
Refer to diagram on page 36



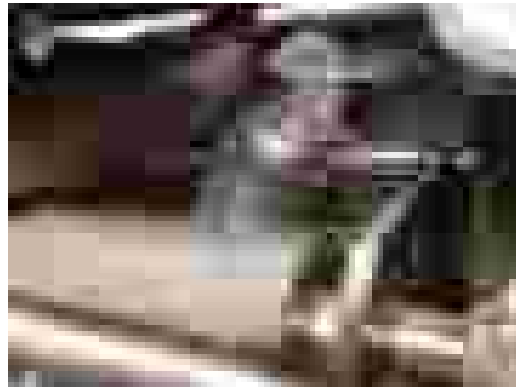
7. Feed film under roller(#1)



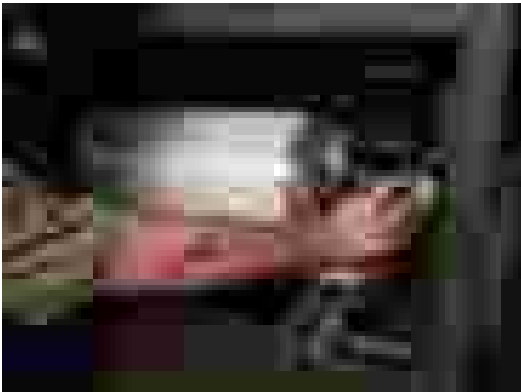
8. Push film between black rubber drive rollers (#2)



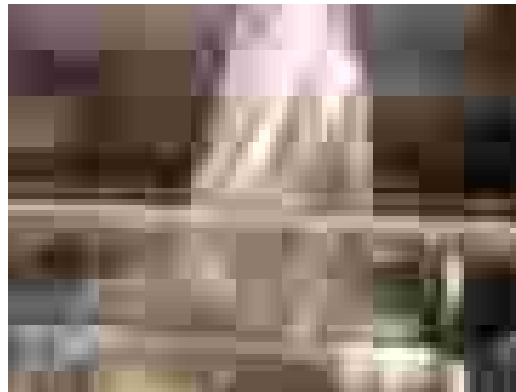
9. Run film under the dancer bar Rollers. (#3)



10. Feed film over idler roller (#4)



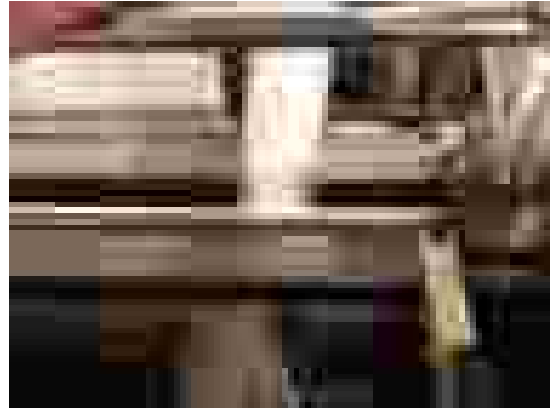
11. Push film rack all the way in



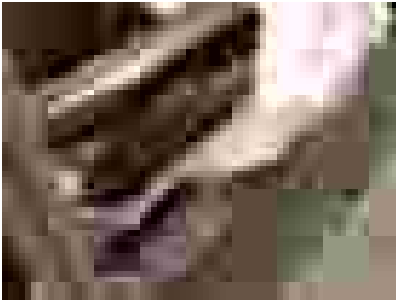
12. Pull film toward rear of machine.



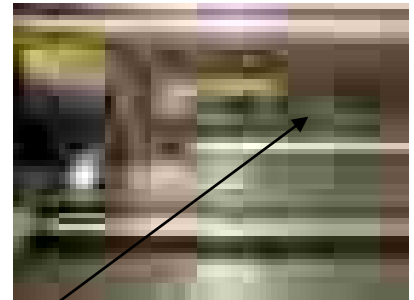
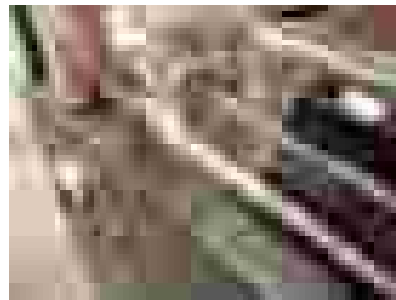
13.



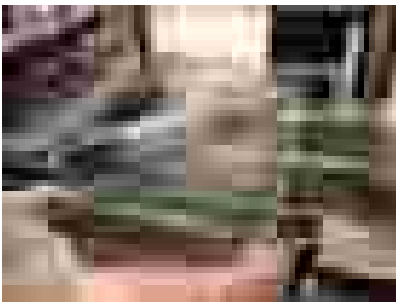
14. Feed from bottom up through idler Roller. (#5)



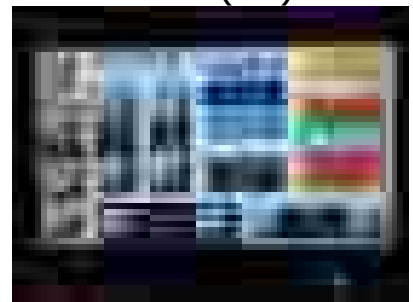
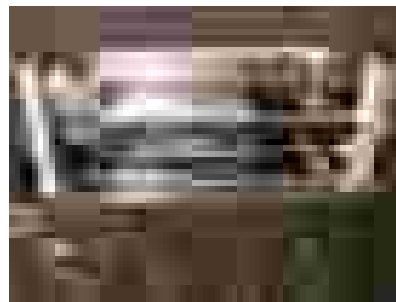
15. Feed film through film separating rod. (#6)



16. Run film from behind last Idler roller (#7)

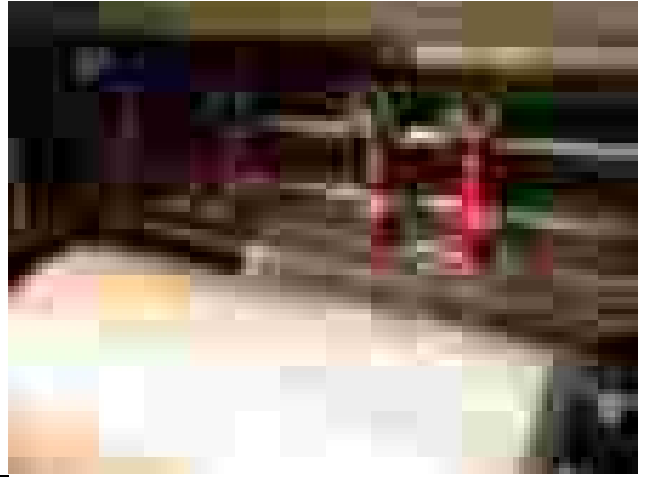


17. Straighten film sheets and Pull toward operator



18. Hit **“film unwind close”**. This will allow you to pull and drive the film.

Adjusting Pin Perf Wheels



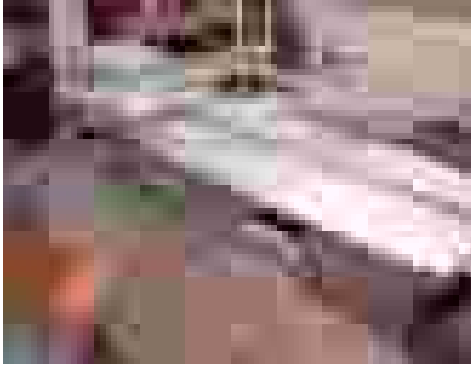
Loosen the knob and rotate pin wheel assembly against rubber roller. Slightly apply pressure against roller to poke holes in the film.

***Use the minimum # of perf rows as possible to get a nice shrink appearance. Too many rows of holes will cause bag to collapse in tunnel too fast and adversely affect the package appearance.**

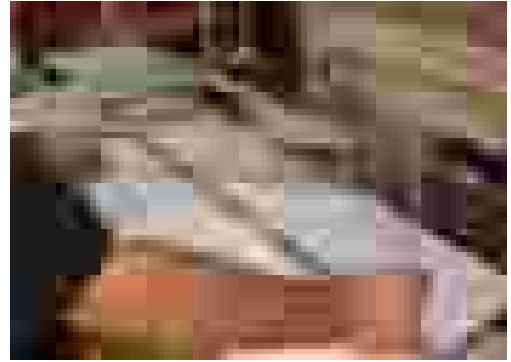
***If the package size is large, extra rows of holes may be required.**

If the package is exiting the tunnel and the seals are popping open this may be a result of the trapped air in bag is not able to escape fast enough and it is blowing the seal out due to too much pressure.

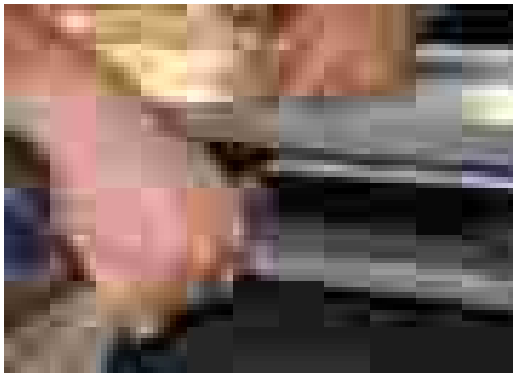
Threading Film



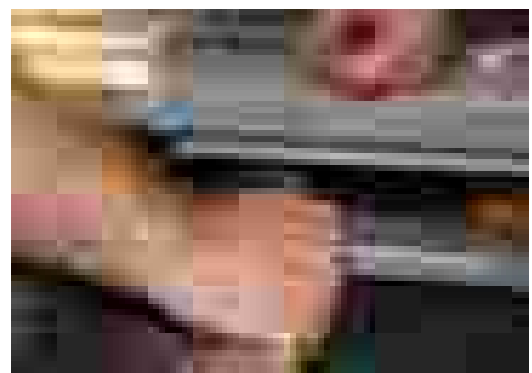
1. Pull out about 2 feet of excess
Film passed the conveyor



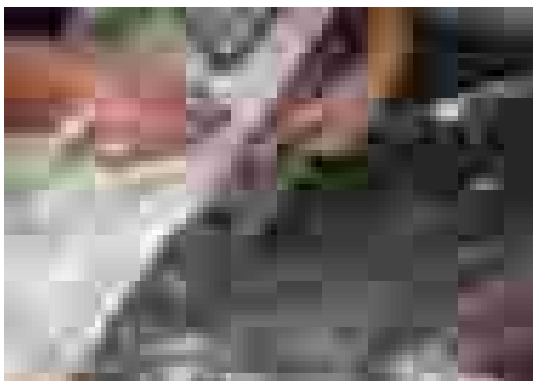
2. Open the film separating
the 2 sheets



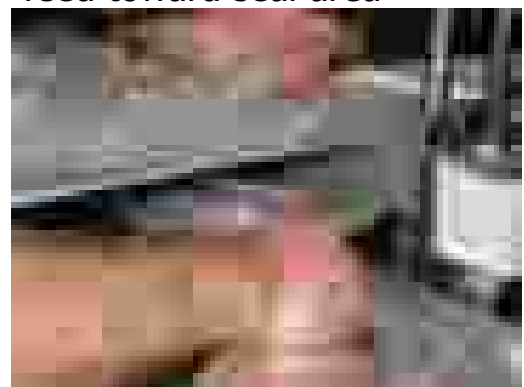
3. Using the bottom or left side of
sheet feed under inverting triangle



4. Continue feeding bottom sheet
under lower inverting triangle and
feed toward seal area



5.

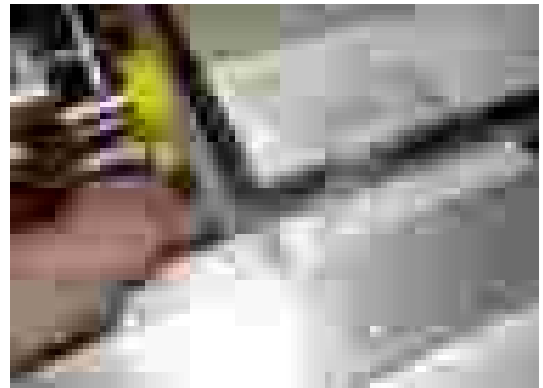
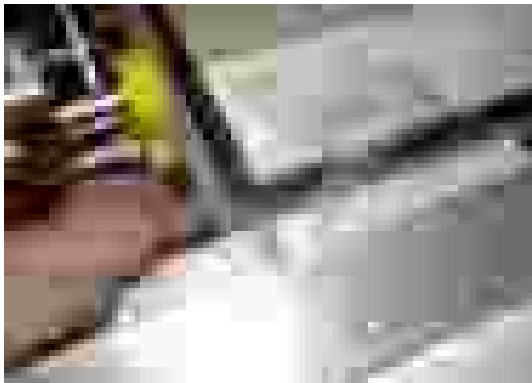


6. Feed film toward seal area.

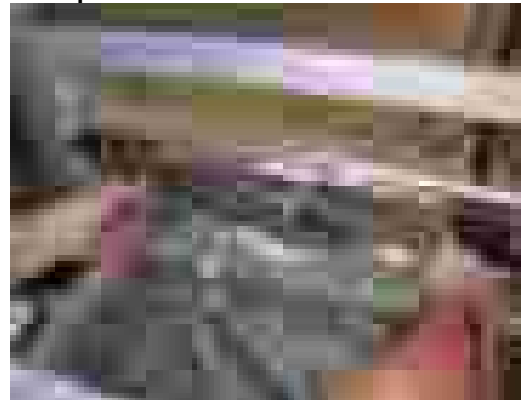
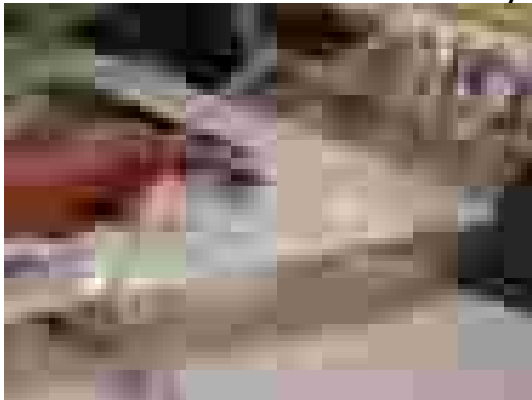
Threading Film



7 and 8. Using left hand move sheet from top side around the end of infeed conveyor going underneath conveyor and pull toward front of machine.



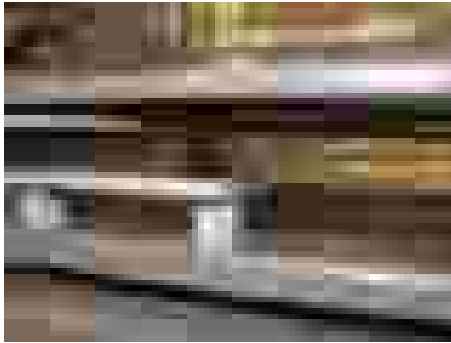
9 and 10. Pull sheet all the way toward operator side of the machine.



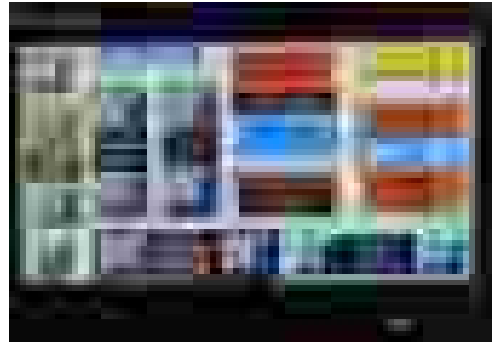
11. Now go back to inverting triangle and place top of sheet over top inverting triangle.

12. Straighten out both sheets taking out all wrinkles.

Threading Film



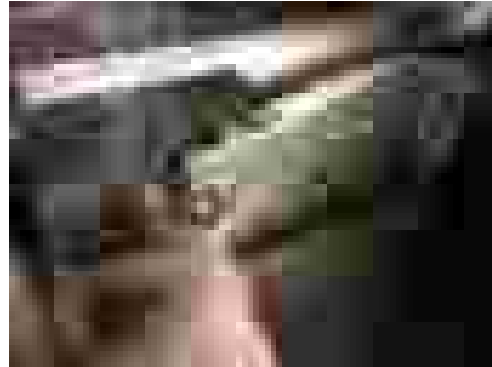
13. From the front of the machine
Look underneath inverting triangle
To straighten sheet.



14. Grab both top and bottom
sheets and feed into drive
wheels.



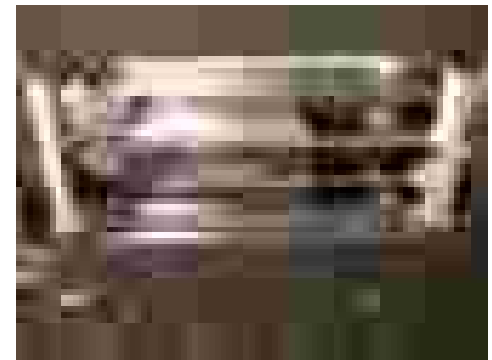
15. Open wheels to insert film



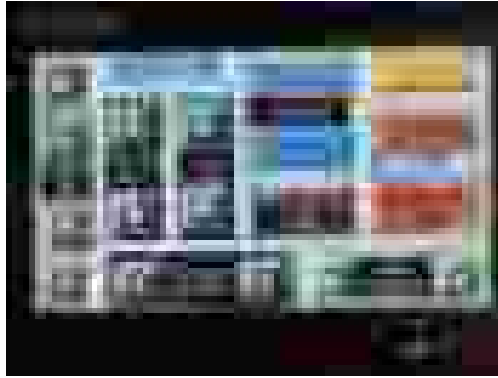
16. Pull film all the way through
the drive wheels



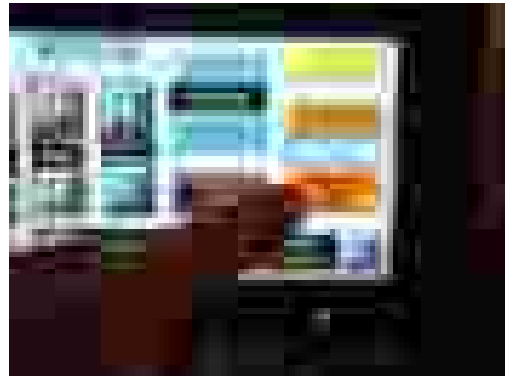
17. When finished film should
Look nice and flat.



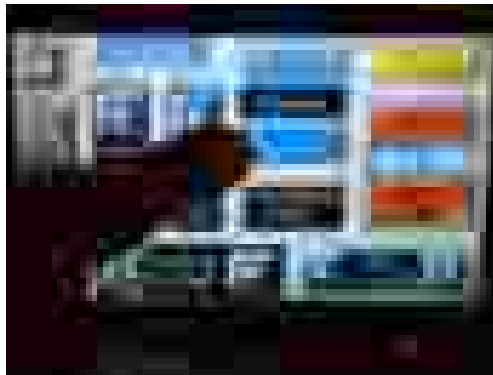
18.



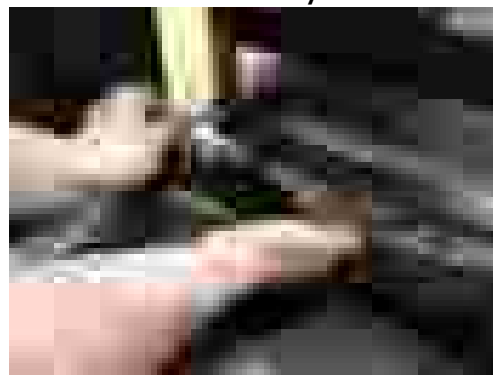
19. Close film wheel



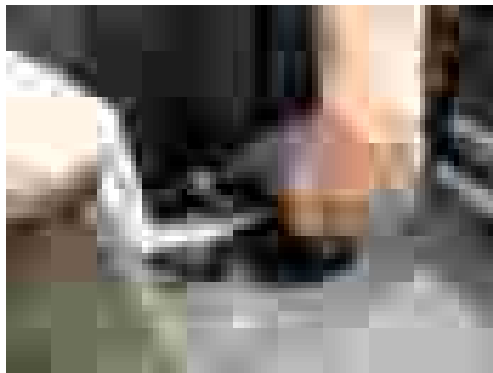
20. Press & hold manual seal until seal bar descends. Make sure hands are clear of safety area.



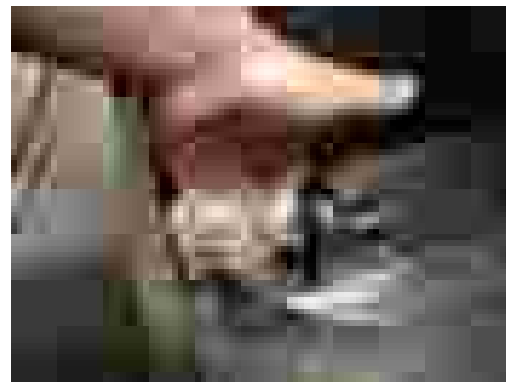
21. Press film jog to advance film & Press manual seal. Repeat the Process a few times to create about 6ft of scrap film



22. Run scrap film around black idler roller (#1)



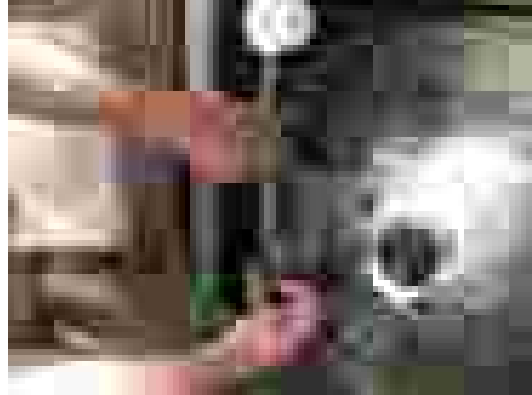
23. Run scrap around 2nd idler Roller (#2)



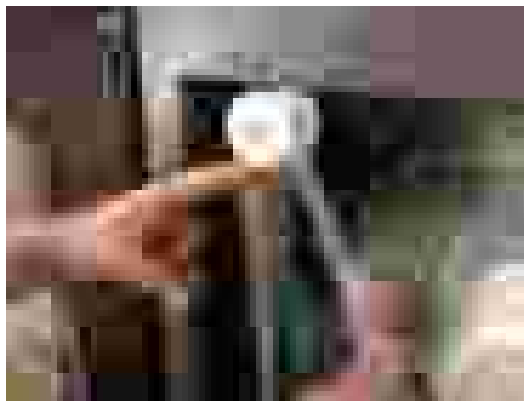
24. Drop scrap through the opening



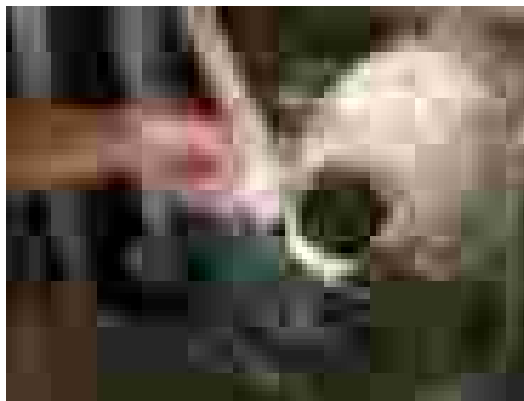
25. Open film scrap door.



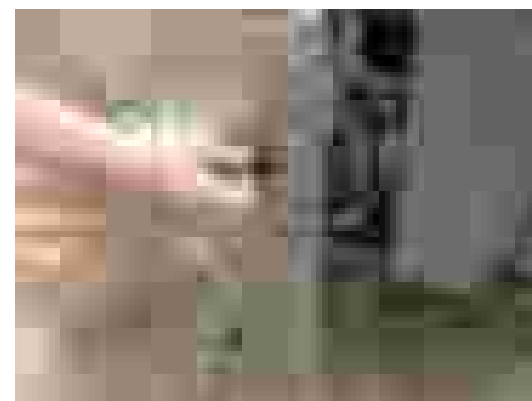
26. Run scrap under dancer arm roller (#3)



27. Run scrap over idler roller (#4)



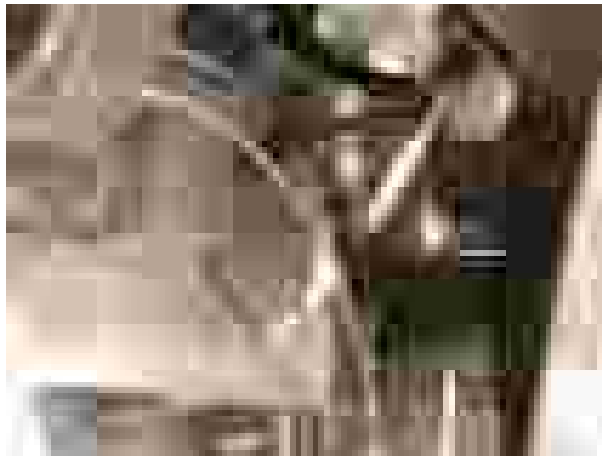
28. Run scrap through a couple of Holes on the lexan



29. Close film scrap door

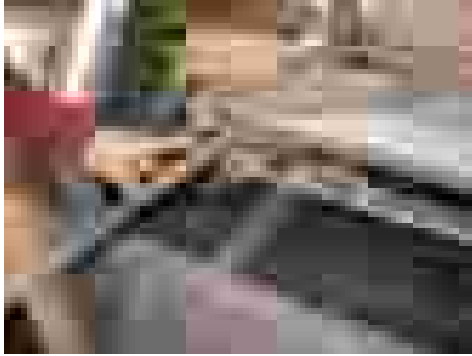


Make sure to set film separating bar 1-2" from CF edge of film.

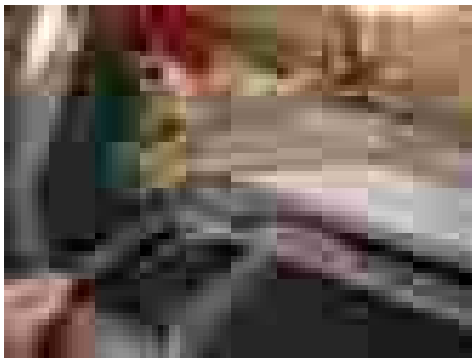


Film scrap wheel alarm switch.

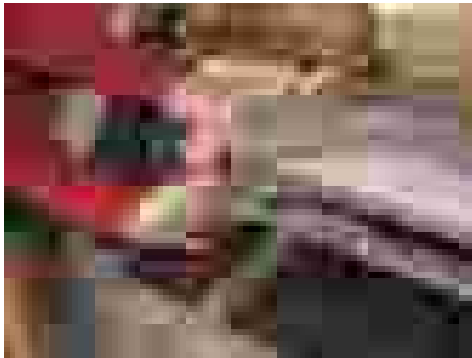
Optional - Installing Film Lifter Bar



Insert bar into holder



Lift top film and place bar underneath film.



Use knob to lock into proper position.

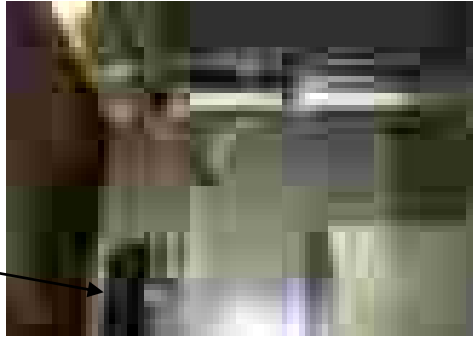
* Film lifter bar is normally used when loose sheets of paper are involved or the film being used has excessive static properties. The lifter bar keeps the product from coming into direct contact with the film and potentially disturbing the package integrity.

Threading Film-Scrap Unwind

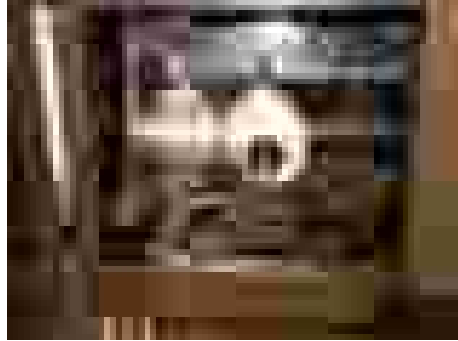


Film Scrap Threading Diagram

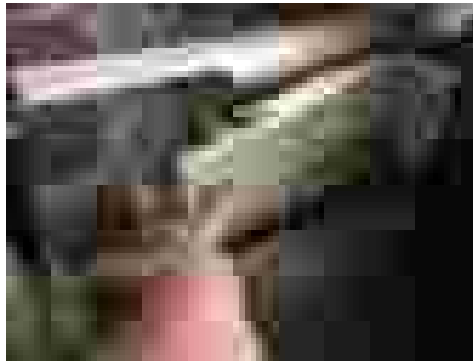
Threading Film-Scrap Unwind



Slot for film scrap



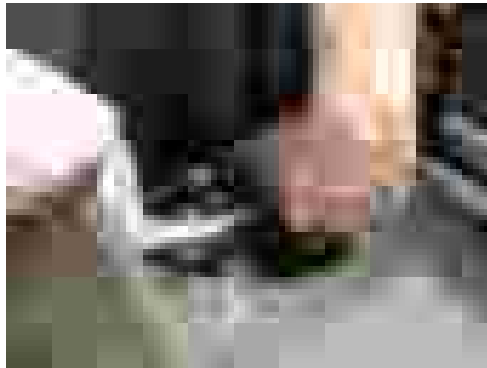
1. After having advanced the manual film feed several times take the excess film and feed through slot in scrap holder



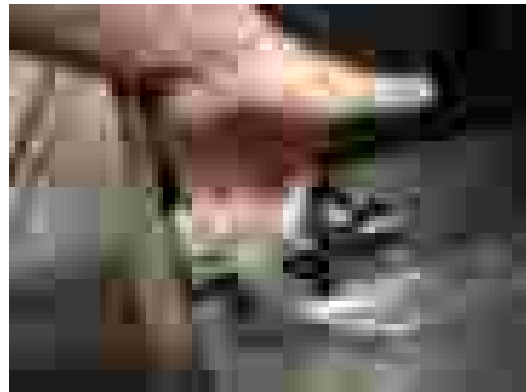
3.



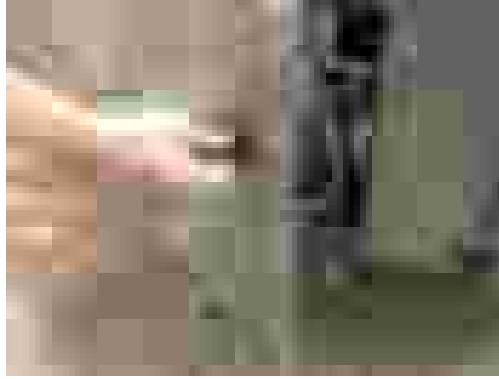
4.



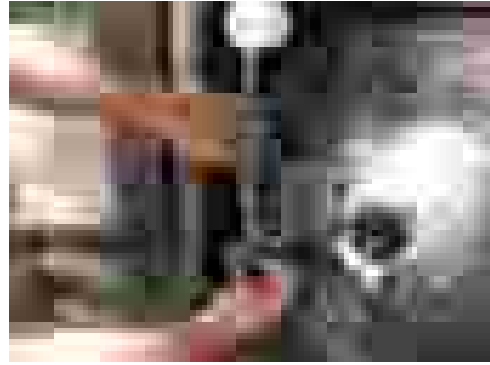
5.



6. Feed straight down toward scrap wheel



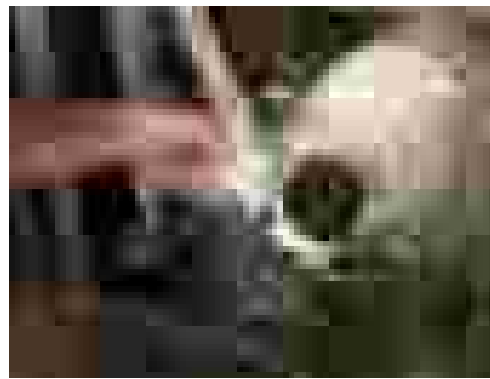
7. Open door



8. Feed film under dancer bar



9. Over the top tracking wheel



10. Wind around spool hub and push excess through hole in cover.

Set Digital Temperature Controls



You may change the temperature by pressing key to select the digit to flash, once chosen you may ↑ or ↓ the temperature then press set to complete.

**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 between 300 to 400 degrees.

Factory Temperature Settings:

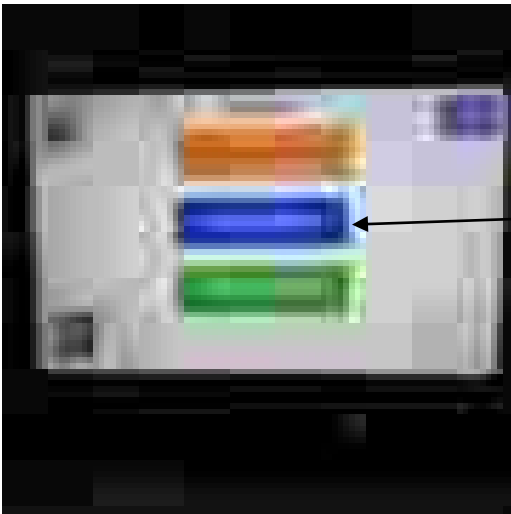
Side Seal factory temperature setting: 400-425 degrees F

Cross Seal factory setting: 350 degrees F

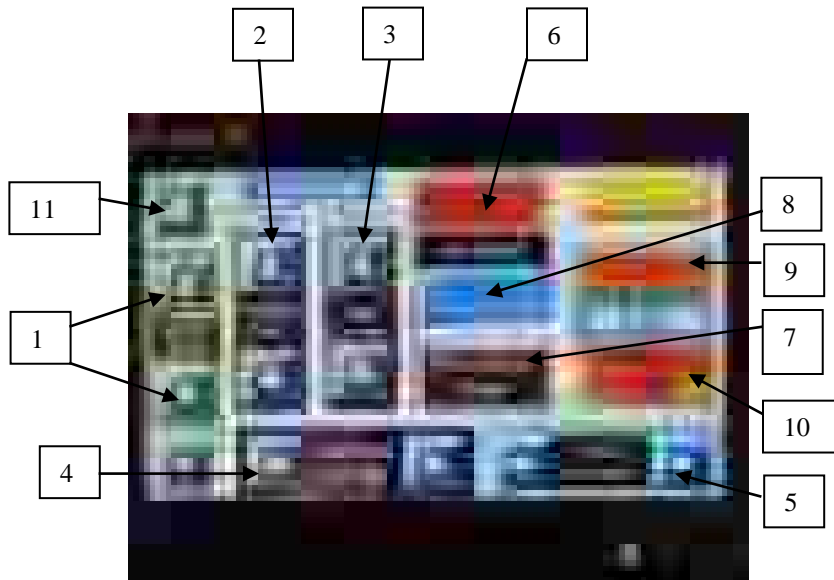
Control Screen Diagram-Manual Mode



□

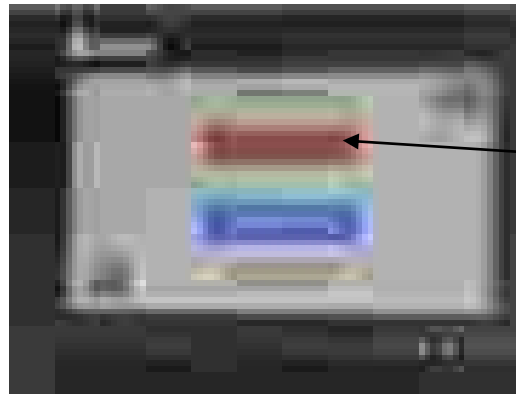


Manual mode=Allows operator to make manual adjustments to machine.

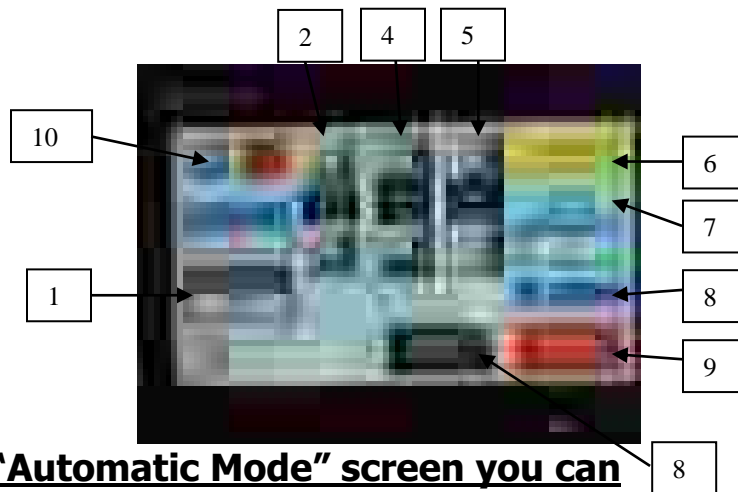


From "Manual Mode" you can adjust the following

1. **Center Seal:** (up or down)
2. **Inverting Head:** (up or down)
3. **Infeed Conveyor:** (in or out)
4. **Discharge Conveyor:** (forward or reverse)
5. **Infeed Conveyor:** (forward or reverse)
6. **Film Drive Rollers:** (open or close)
7. **Film Unwind Roller:** (open or close)
8. **Film Jog:** Manually advance film
9. **Seal Time Adjustment:** Set the seal time
10. **Manual Seal:** Must hold for 1 second to activate
11. **Home Screen:**



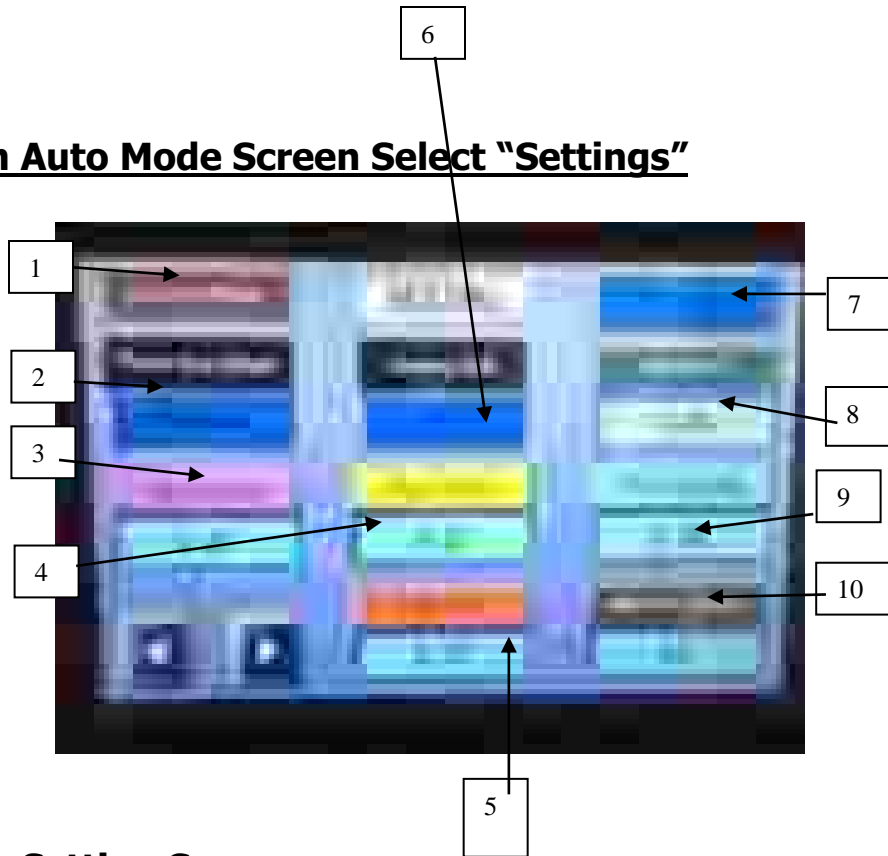
Choose Automatic Mode



From "Automatic Mode" screen you can

1. **Pre-Set Counter**: Once counter is set machine will automatically stop at desired count.
2. **Product Counter**: Total # of packages run
3. **Center Seal**: Adjust position of center seal
4. **Inverting Head**: Adjusts position of inverting head
5. **Infeed Conveyor**: Adjusts position of infeed conveyor
6. **Setting**: Takes you to Settings screen where you can set seal time, bag length, etc.
7. **Load Memory**: Can select from previously set program memories.
8. **Start**: Puts machine in run mode, will start conveyors
9. **Stop**: Shuts down machine function and will stop conveyors.
10. **Alarm Indicator**: When red light flashes alarm will sound
11. **Home Screen**:

From Auto Mode Screen Select "Settings"

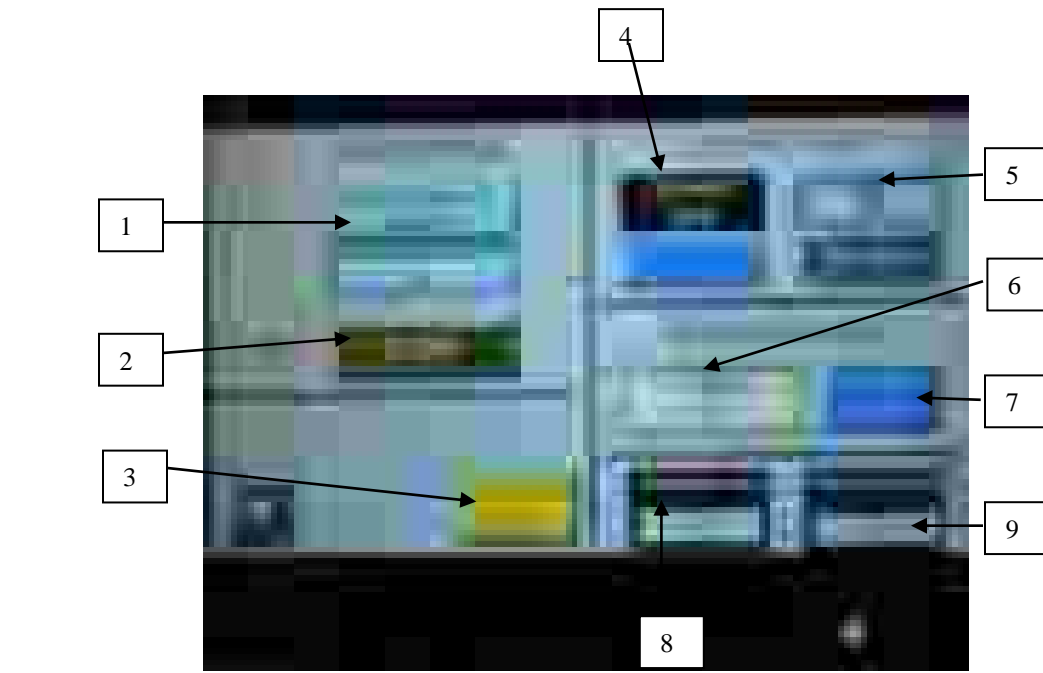


From Setting Screen

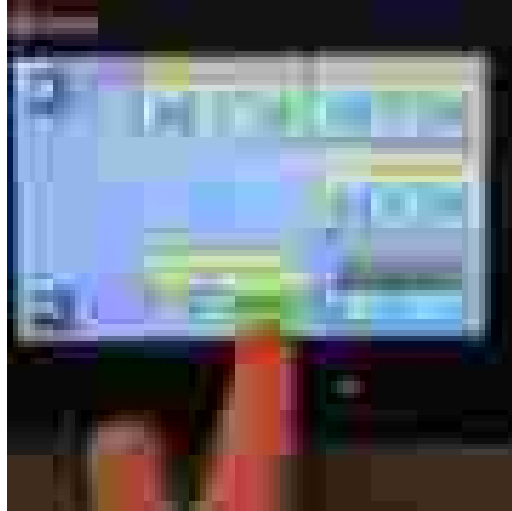
1. **Counter Re-Set:** Allows operator to re-set counter to zero
2. **Photo Eye Select:** Choose between horizontal and vertical photo eyes
3. **Front Portion:** Allows operator to set amount of excess film to be used in the front of the package.
4. **Back Portion:** Allows operator to set amount of excess film to be used on the back of the package.
5. **Seal Time:** Set the length of time the seal bar stay down.
6. **Closing Belt:** Allows discharge conveyor to move over and bridge the gap in the seal pad area to help transfer smaller packages. (Optional Item)
7. **Random/Multi pack:** Operator may choose between these two modes, Random is when the photo eye sees the package and determines the length of the package and Multi-Pack is when the operator pre-set the bag length to be used.
8. **Multi Pack:** Normally used on difficult packages where the photo eye might get a false reading or where the package is

such that the photo eye might read through a product such as a picture frame or roll of duck tape where the vertical photo eye will see through.

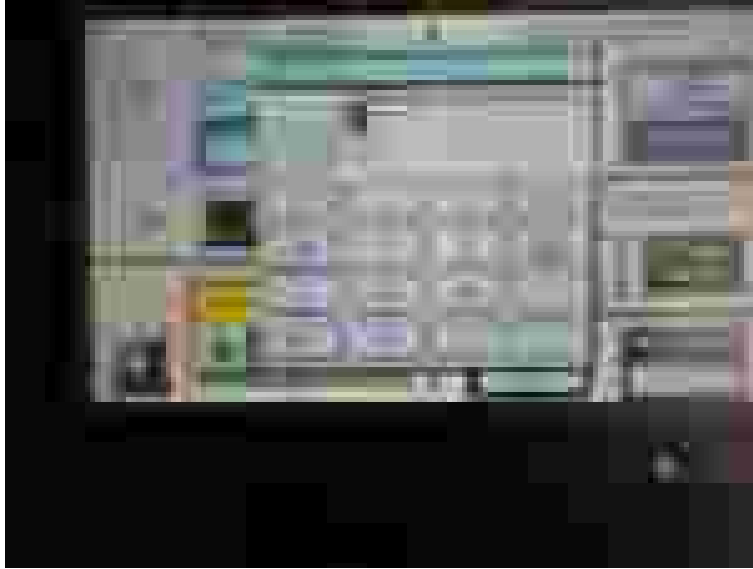
9. **Film Pre-Feed**: Advances film from film drive roller to release tension between packages when cross seal bar comes down to seal.
10. **Machine Speed**: Allows the operator to set the machine speed from 1-100 where 100 is close to 100 FPM but not exact.



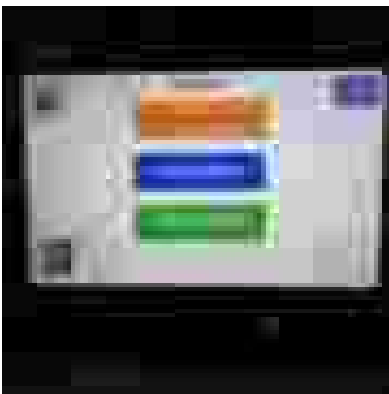
1. **"Select Memory Address"**: Allows operator to select from 1-12 program memories
2. **Enter**: Saves the program memory that was just entered.



3. **Inverters Setting:** Takes you to inverter setting screen. From here you can adjust the side seal wheel timer (how soon it opens up after machine stops)
4. **Conveyor Timer:** Can turn On or Off the infeed conveyor if not in use.
5. **Set Time:** Operator can set the length of time before the conveyor shuts off.
6. **External Conveyor:** Can select how the infeed conveyor is to be run.
7. **Conveyor Mode:** Can choose from 4 different running modes, Conveyor off, Conveyor On, Conveyor Sync and Conveyor non-stop.
8. **Inverting Head:** Preset position of inverting had for program #1 shown
9. **Infeed Conveyor:** Pre-set position of infeed conveyor on program #1



Press on and function that requires a numerical value and a screen will pop up requesting input or if you wish to change an existing value press clear, enter new value from key pad, press enter and the new value will be saved.

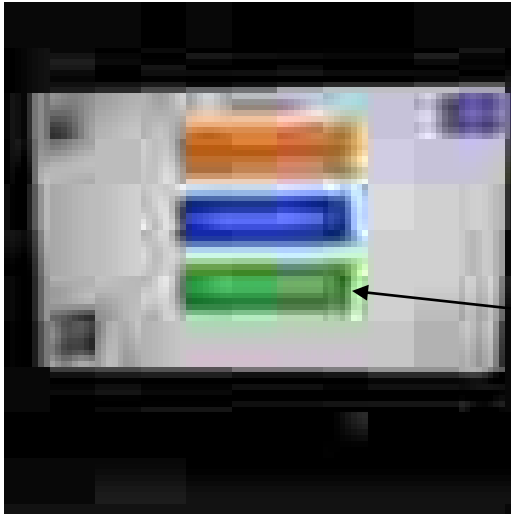


Start



If you are ready to run machine, press the green start button to activate machine.

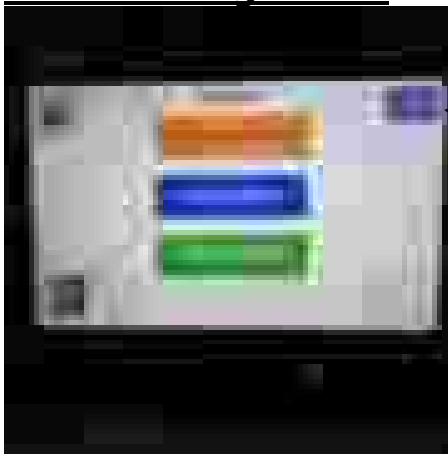
BYPASS MODE:



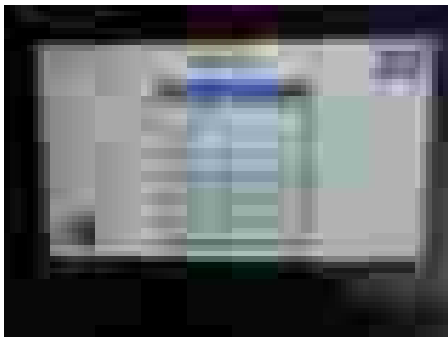
Bypass Mode

When Bypass mode is pressed machine conveyors will run allowing product to travel through machine without photo eyes activating. **This will allow the operator to use the machine as a conveyor if needed.**

Machine Diagnostics

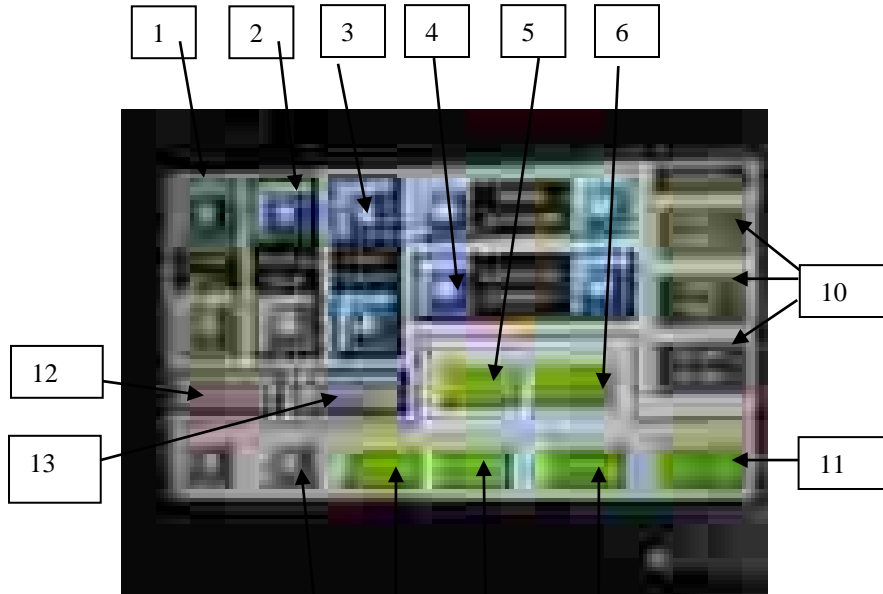


Press Icon



Passcode is: 7000

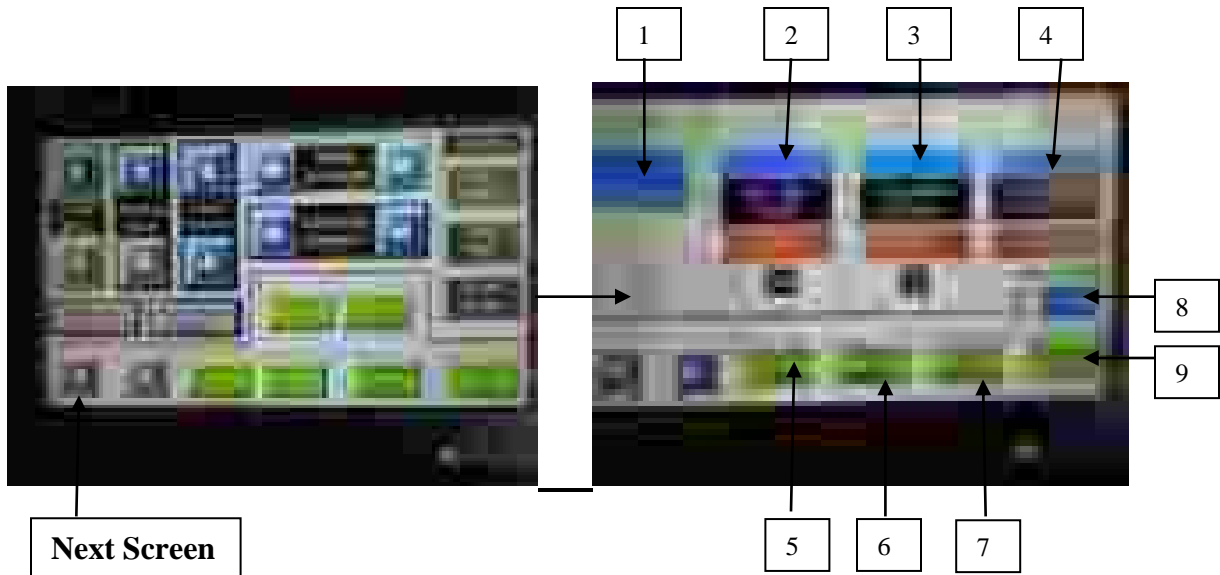
Key in access password to diagnostic screen- Please contact a certified technician or Supervisor.



From the diagnostic screen you can access the following functions

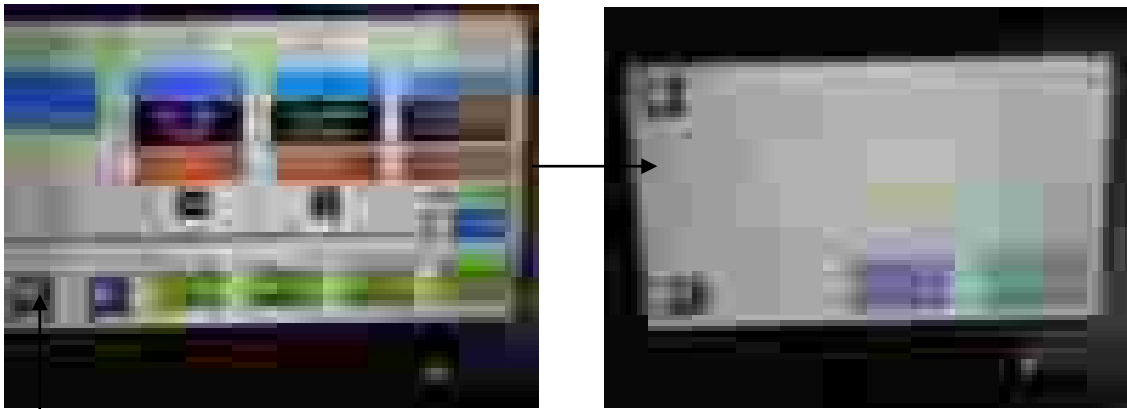
8 8 8 8

1. **Center Seal:**
2. **Inverting Head:**
3. **Infeed Conveyor:**
4. **Discharge Conveyor:**
5. **Scrap Full:**
6. **Scrap Winding:**
7. **Photo Eye-Horizontal:**
8. **Photo Eye-Vertical:**
9. **Seal Bar Safety:**
10. **Motors:**
 - A) **Film Unwind**
 - B) **Film Feed**
 - C) **Scrap Wind**
11. **Film Dancer Bar:**
12. **Inverting Head: Zero**
13. **Infeed Conveyor: Zero**
14. **Next screen**

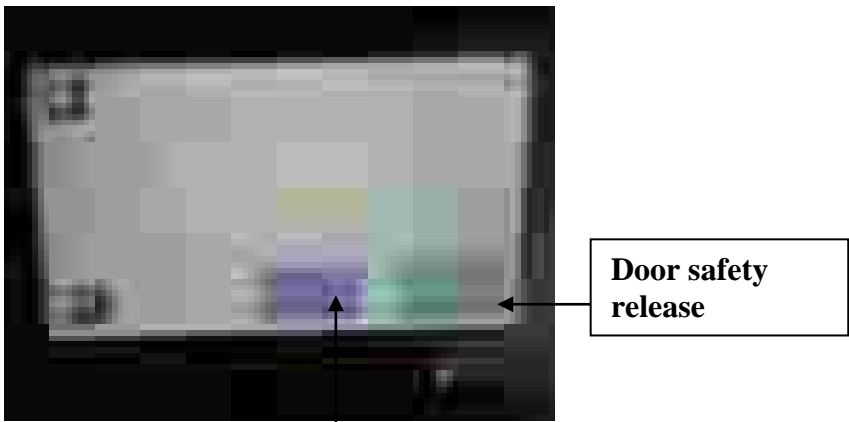


From page 2 of diagnostic screen you can check:

1. **Seal Bar Cylinder:**
2. **Film Feed Cylinder:** Up or Down
3. **Film Unwind Cylinder:** Up or Down
4. **Closing Belt Cylinder:** In or Out
5. **Seal Bar Temperature:** At or under temperature
6. **Safety Guard:** Activated or not
7. **Start Switch:** On or Off
8. **Alarm:** On or Off
9. **Emergency Switch:** On or Off



Next page



Door safety release

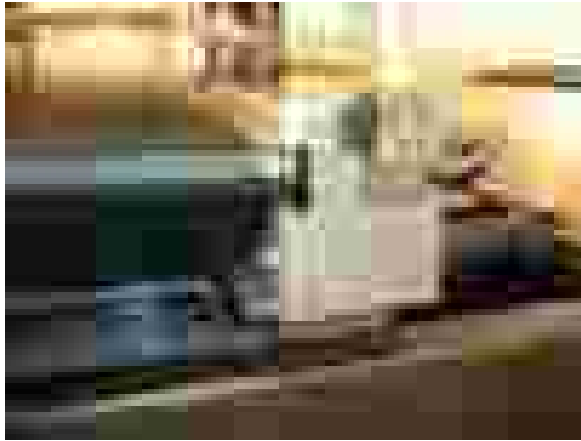
Seal Temperature Sensing

Press: Temperature sensor off-When off machine will be able to operate even if temperature is not up to set temperature

Door Safety Sensor:

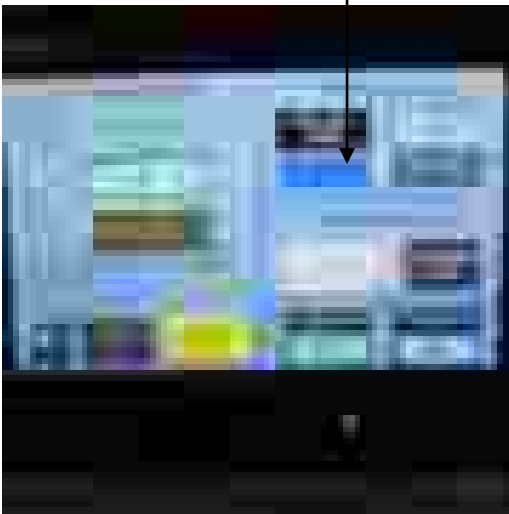
- **You must hold door safety sensor for a minimum of 1 second to activate, when activated you are overriding the door safety and you will be able to run the machine with the doors open-Only qualified technician with proper training and passcodes should activate this feature.**

Infeed Photo Eye

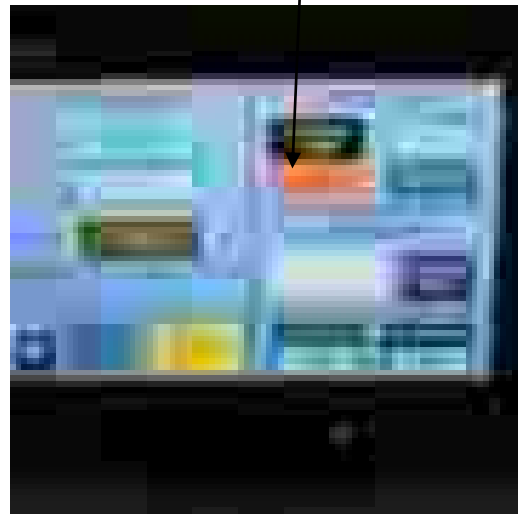


The machine is designed with an infeed photo eye that if not triggered by a product for a given amount of time the infeed conveyor will automatically stop to preserve the infeed belt and reduce wear on the motor. Once the eye is activated by the next approaching product the conveyor will automatically start up again.

Conveyor "Off"

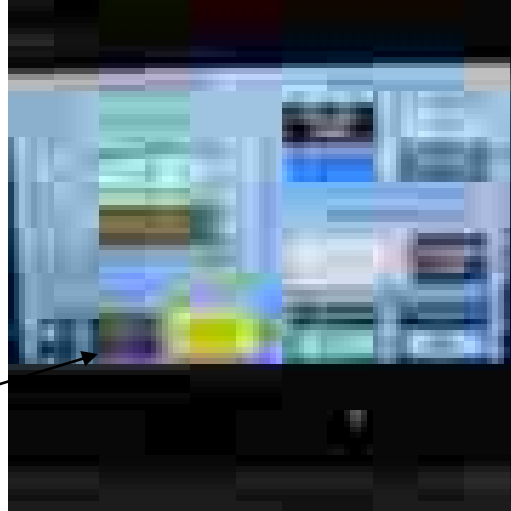


Conveyor "On"

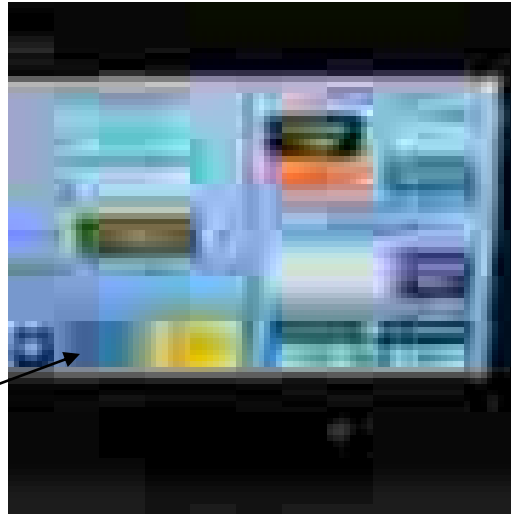


Set conveyor time in seconds, if product does not activate photo eye within set time the infeed conveyor will automatically stop, saving wear and tear on belts and drive motor. When the photo eye is re-activated by product the conveyor will start up again.

Infeed conveyor RUN



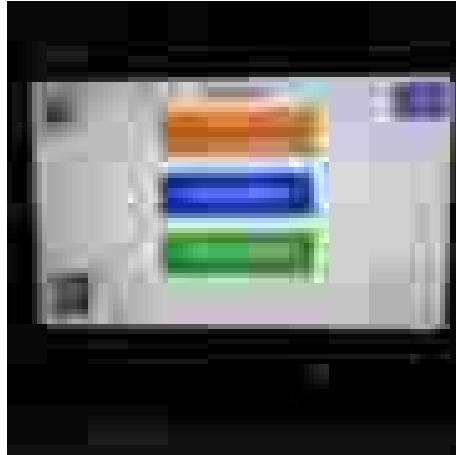
Infeed conveyor STOP



When the infeed conveyor is in the **Run Mode** and you place packages on the infeed conveyor when the package passes underneath the cross seal bar and the seal bar comes down the infeed conveyor will continue to run and bring the next package up to the seal bar under the photo eye and wait for the seal bar to raise up speeding up the cycle rate of the machine.

When the infeed conveyor is in the **Stop Position** and the package passes under the cross seal bar and comes down to seal, the infeed conveyor will stay off until the cross seal bar rises then start up again and move the next package into the seal area.

Product Set Up

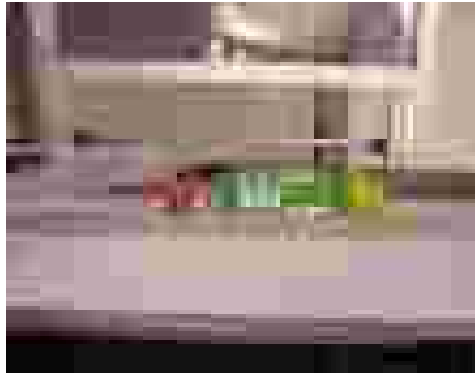
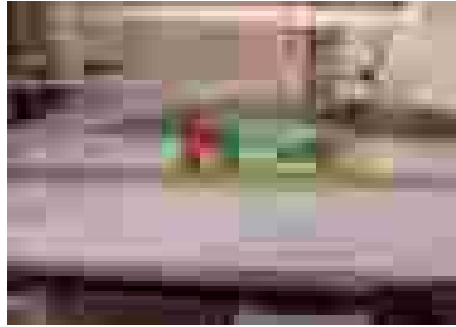


Enter "**Automatic Mode**" from the home page. **Make sure "Load Memory is on "ZERO"**

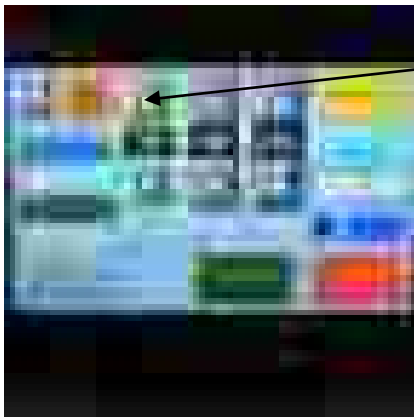


Infeed
Conveyor

Adjust the infeed conveyor based on your product. Make sure there is at least 1/2" and the product guide bar (the taller the product, the more gap required).



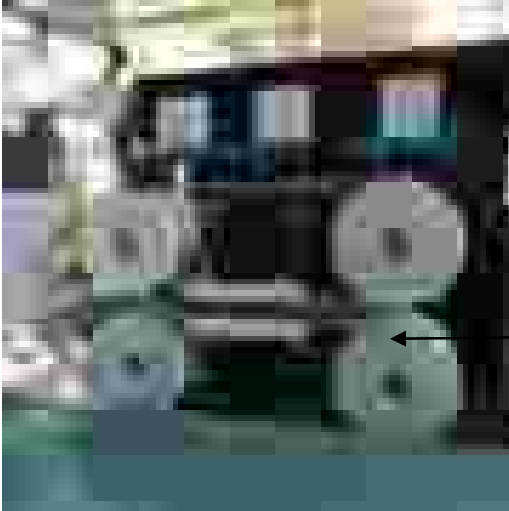
Adjust the Inverting Head based on the height of your product. Make sure there is a 1/2" to 1" gap between the top of the product and the inverting head.



Center Seal



Adjust Center Seal based on height of product. You want the center seal adjusted so when the product is being sealed, the seal is centered to the height of the package.



Side Seal Sealing wheels should be positioned half the height of the package you are running through the machine.

The center seal is adjusted about 3" above the conveyor in the above photo, this would be the setting if the overall package height was 6" tall.

Press **"Setting"** to go to the next screen.



Choosing Random or Multipack is determined by nature of the product. If you have a product that is transparent, use the multipack option. Also use multipack option if you are packing more than one product back to back in one package, otherwise use random option.

If you choose multipack option, then you must enter a value in the multipack box. This value will be a measurement of time and will determine how much bag will be created for the product. The speed of the machine will affect the length of the bag. For example, multipack length set at 1.00 and machine speed set at 50 might create a bag 10" long. However, the same multipack length (1.00) and machine speed at 75 might create a bag 14" long. An increase in machine speed will increase bag length.

Film Pre-Feed: Advances film from drive roller to take tension of the film when cross seal bar comes down.

Machine Speed is the speed of the conveyors and is set between 0-100. When setting up a product, it is recommended to start at 50-60 and adjust higher if needed.


Closing Belt or Closing Conveyor is an "Optional Feature" and is used for product that are 4 inches or less depending on product configurations.

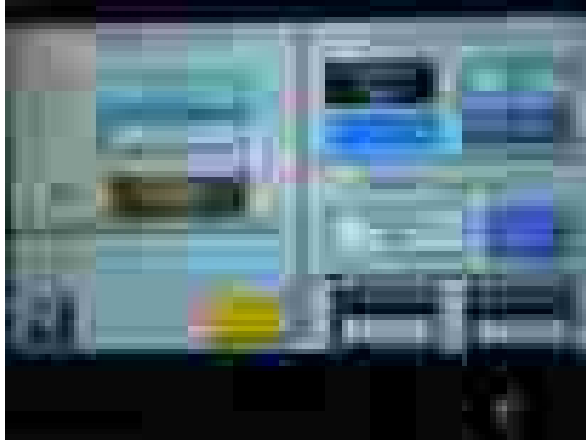
Back Portion is used when selecting the random option. It's a measurement of time and it allows the product to clear the seal bar prior to seal bar descending.

Seal Time is the amount of time to allow proper cutting and sealing of the bag. The amount of seal time is determined by the types of plastic film and the thickness of plastic film and type of product.

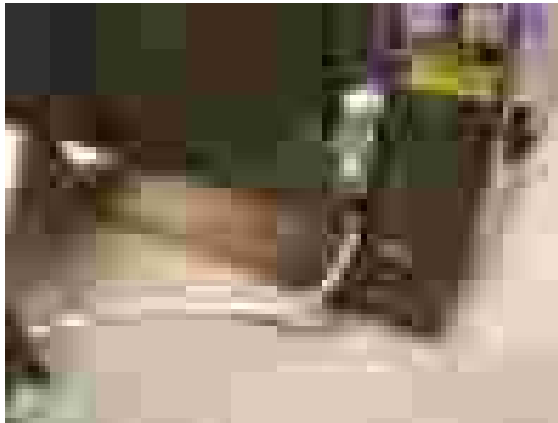
It is recommended to start @ 1.00.

Photo Eye Select: Choosing the photo eye will depend on the product. Product that is less than 1/2" tall should be detected by the vertical photo eye. Almost everything else and especially taller products should be detected by the horizontal photo eye.

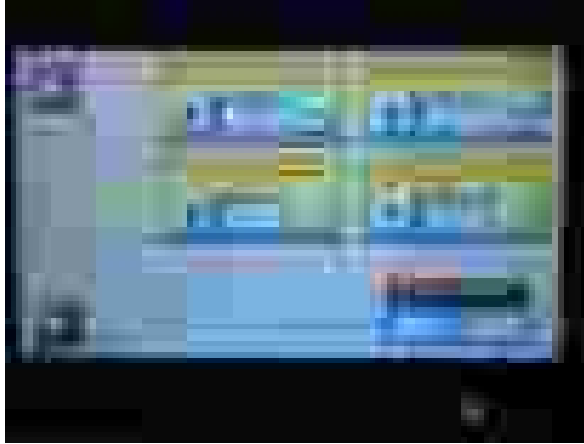
Front Portion: Amount of excess bag created for the front portion of the product. It's a measurement of time. Press  to go to the next screen.



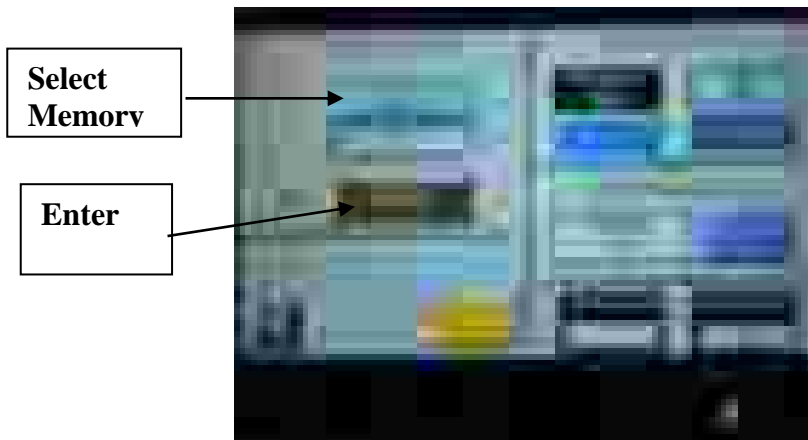
Conveyor Timer: When it is set to **ON** position and a number for set time is chosen it will shut off the infeed conveyor if the infeed photo eye doesn't detect a product within the set time period.



External Conveyor: If the optional infeed is purchased by the customer, the conveyor can be plugged in and operate with the sealer. There are 4 options. Press **Conveyor Mode** to select the appropriate option.

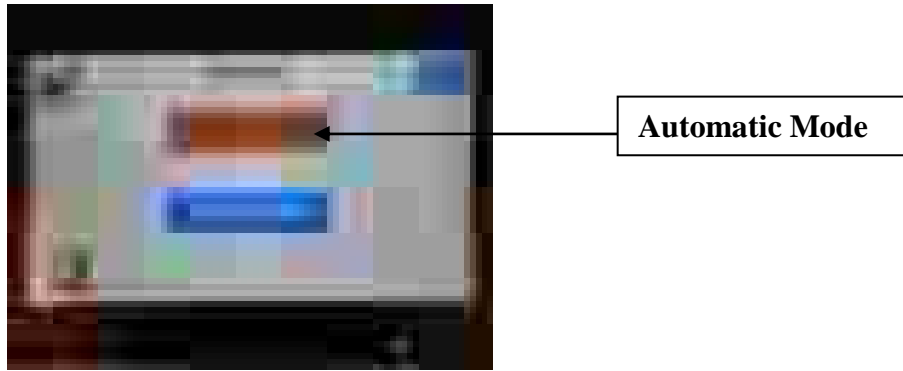


Inverter Setting: The sealer operates on 4 motors that use variable speed inverters: Infeed motor, Discharge motor, Film wheel motor, and Film unwind motor. Normally they are all set to the same speed as the machine speed. However, each could individually be adjusted if needed (usually not required for most applications).



Selecting Memory Address: Once the previous settings have been set and a few products have been run and the end result is acceptable, you can save those settings in the select memory address. Press the number box and enter a value to assign your settings to that value.

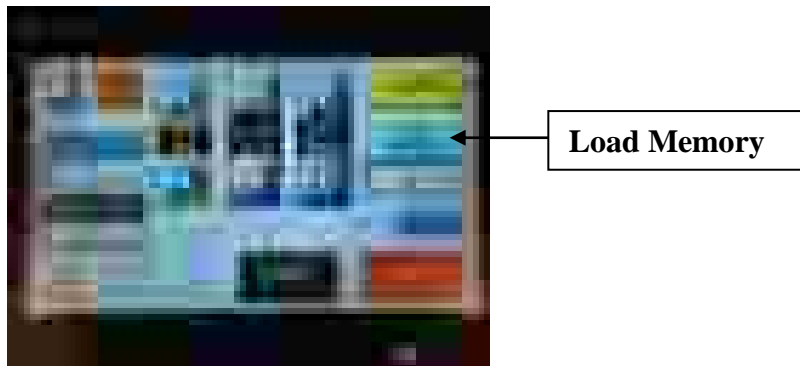
- **You must press "ENTER" to save your setting into a memory location**



Example of setting up for a given product

Product description: Stack of paper 8.5" w x 11" L x 2" H

Go to main menu and enter automatic mode.





Tap load memory and choose a # from 1-12. If it's a blank memory you will notice that the infeed table opens to maximum opening and the inverting head opens to maximum opening automatically. In order to start adjusting the settings to your product, you must first reset the load memory back to 0 (if not set back to 0, you won't be able to make the adjustments). **Step one:** Place the product (stack of paper) on the infeed conveyor and use arrows to adjust the width of the table (infeed conveyor value @ 90). **Step two:** Adjust the center seal unit to height of the product by placing the product on the discharge belt and used arrows on the center seal. Quick reference is to use film drive assembly. Where the 2 black belts meet it should line up the center of the package. **Step three:** Press the setting icon to go to the settings screen.



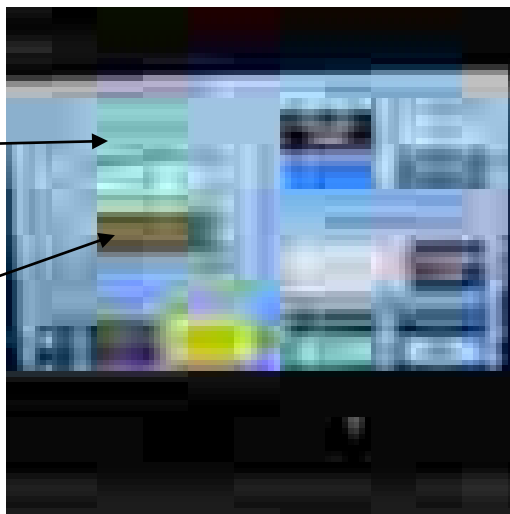
Step Four: Choose random option (top right hand corner).

Step Five: Set the machine speed to 60.

Step Six: Choose a back portion 0.50 and seal time 1.00. When choosing a photo eye remember that photo eye can read the product from front to back. In this case we chose horizontal. Press the  to go back to the previous screen, put product on the infeed table and press start (make sure safety hood is closed). Look at the amount of bag created and adjust the settings if necessary. After running a few products through and if there are no more adjustments are necessary, you can save these settings. Go to setting screen (if not already in it), press .

Select Memory Address

ENTER TAB



Tap on the # of select memory address and enter a value (1-12), press enter. You will see the # registered in the box.

To permanently save these settings press the Enter Tab.

Those settings are now saved in the assigned memory address.

Formula to calculate the number of packages per minute.

The machine will run based on given package size.

60 (60 Seconds)

(L + H + 20% of Total)

Speed of machine x 0.22

Example: Pkg size 10"Lx5"Wx2"H

$$\frac{60}{\frac{14''}{85 \times .22 + 1}} = \frac{60}{\frac{14}{18.7 + 1}} = \frac{60}{1.75} = 34\text{ppm}$$

Adjustments:

Adjustments- Safety Sensors



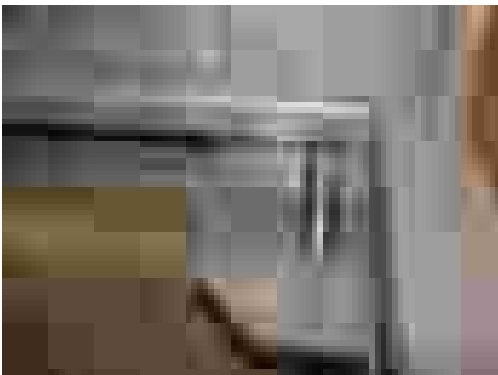
Red light on seal head when you look through hole indicates seal head safety sensor is working correctly.



Press seal bar safety icon on screen to activate safety sensor on seal bar shown above

Seal bar safety

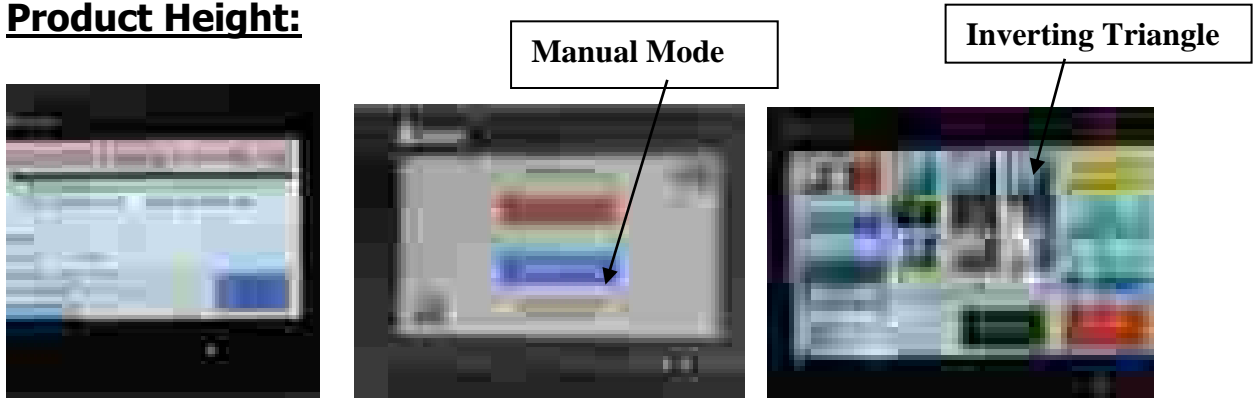
Adjustments- Machine Height



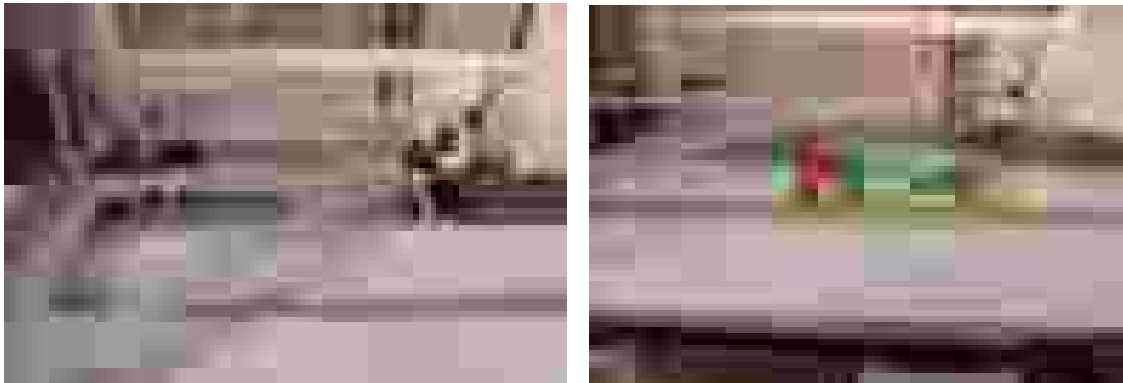
Machine has threaded casters that can be adjusted 4" from 35 3/4" to 40" maximum

Adjust Inverting Head For product height and width

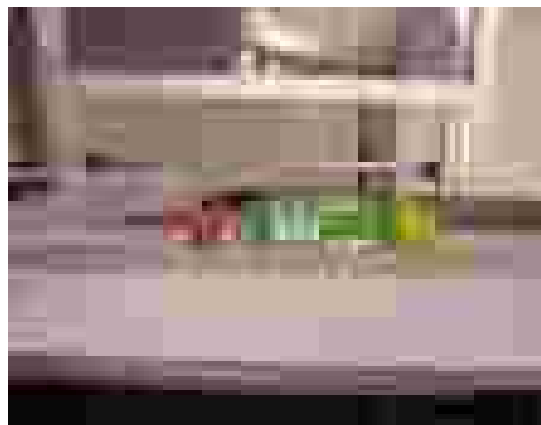
Product Height:



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

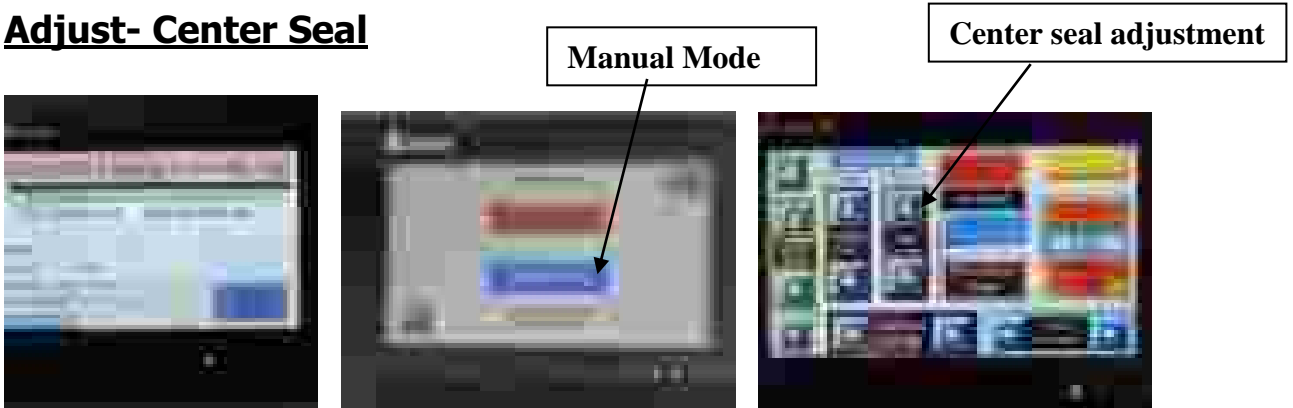


With product on infeed conveyor under inverting triangle adjust height.

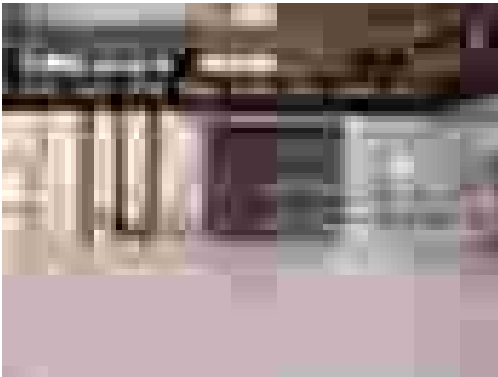


Inverting triangle should be set $\frac{1}{2}$ "
To 1" higher than product.

Adjust- Center Seal



From main control panel in manual mode use arrow to raise or center seal position.

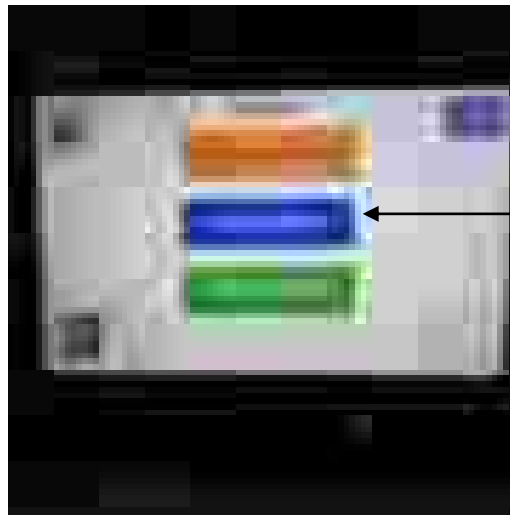
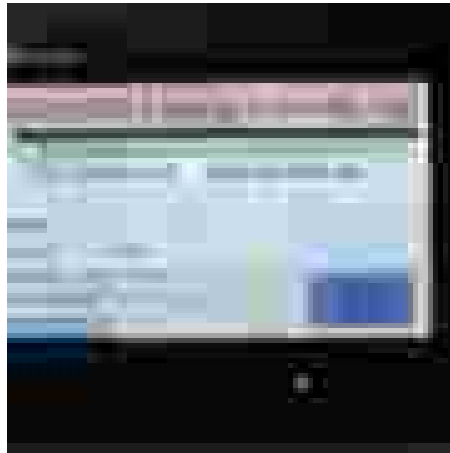


Maximum jaw opening is 8"

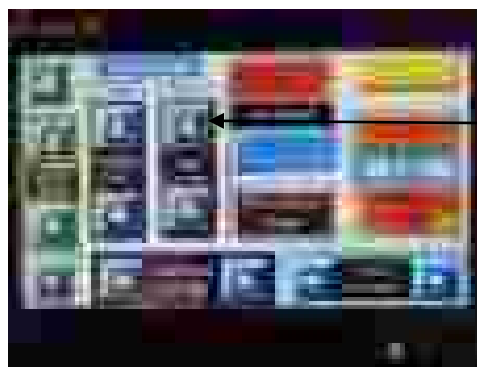
Adjust cross seal jaw to meet in center of package.

Adjust Side Seal Wheels to meet in center of package height.

Product Width Adjustment-Infeed Conveyor



Manual Mode

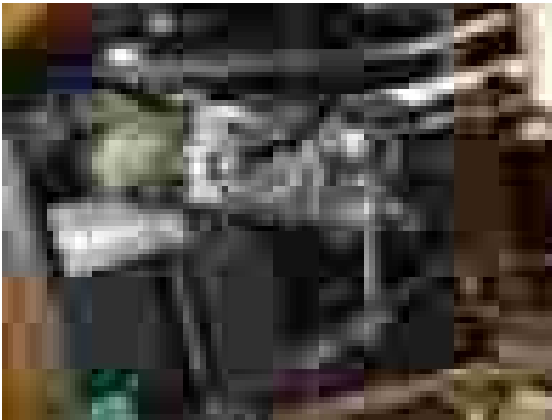


Adjust infeed conveyor in or out to match product width

Adjustment of Seal Head Movement –Up and Down



Use key to open access door



Adjust flow control values to set speed of seal head movement up and down.

Front adjustment (closest to door) is for down stroke.

Rear adjustment control – is for up stroke

Set head movement so stroke is smooth up and down – no excessive head movement.

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.

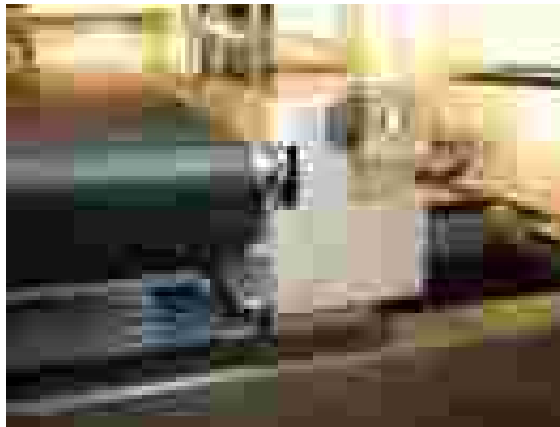
Roller is tapered to help track belt and keep belt centered.

Adjustments-Photo Cell



Top adjustment is for sensitivity minimum and maximum

Bottom adjustment is for photo cell delay



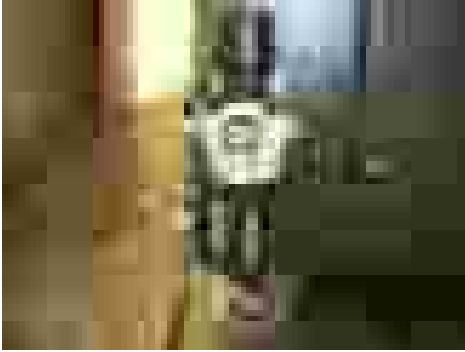
Infeed conveyor photo eye is set to shut off conveyor if no product is presented within a set time. Once product is sensed the conveyor will automatically re-start.

Infeed Conveyor Photo Eye Timer Adjustment



Set desired time in seconds. If no product has been detected within the desired time the infeed conveyor will automatically shut off. Once product is detected the conveyor will automatically start again.

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)

Normal operating pressure is 80-90 PSI. Maximum regulator pressure should not exceed 145 PSI.

Troubleshooting

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

Warning!

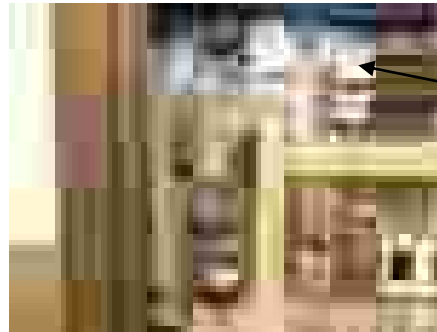
If the problem persists, contact the manufacturer for assistance. (909) 923-9292 Excel Packaging Service Dept

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

1.

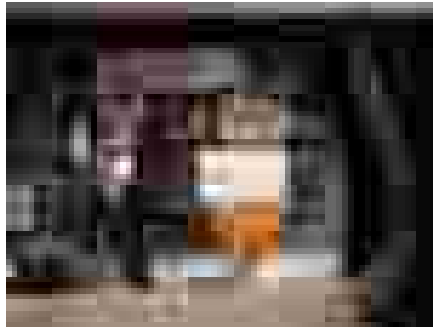


Turn power on



Fuse Block

2. Please check all fuses.

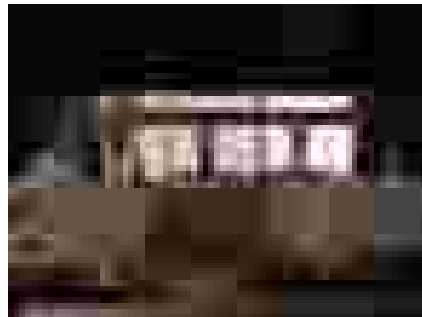
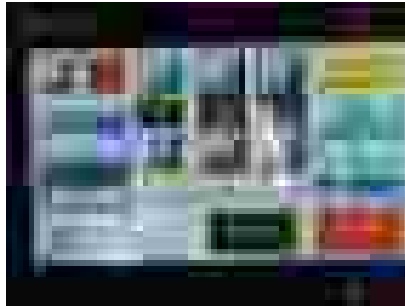


3. Check power to transformer



Machine Speed

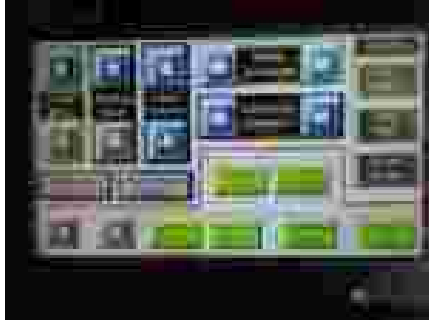
Make sure setting are not set on **"ZERO"** If machine speed is set on **ZERO** or Seal Time is set on **ZERO** machine will not operate!



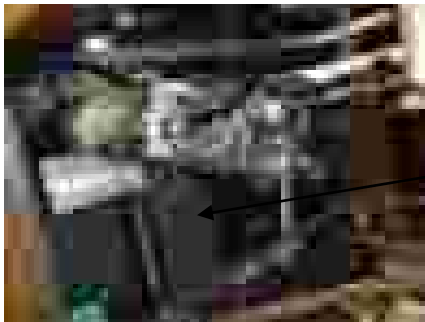
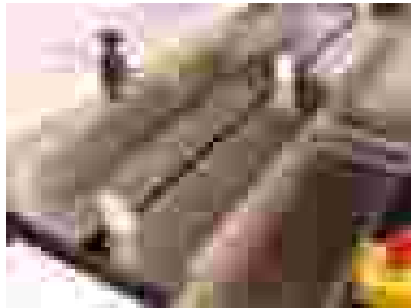
5. Seal bar safety switches are activated



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

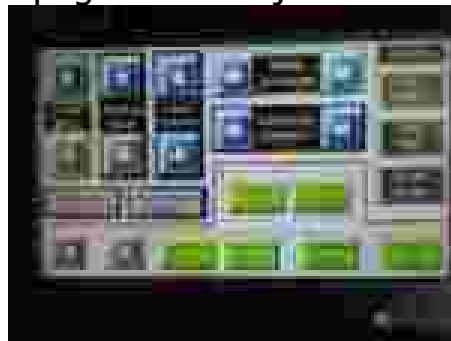
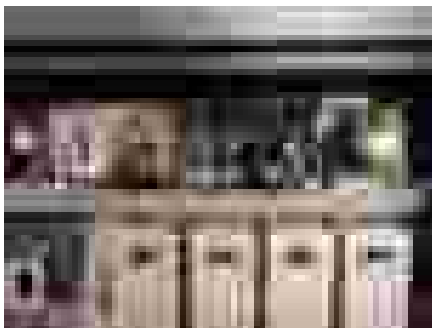


11. Make sure no emergency switches have been pressed or pushed.

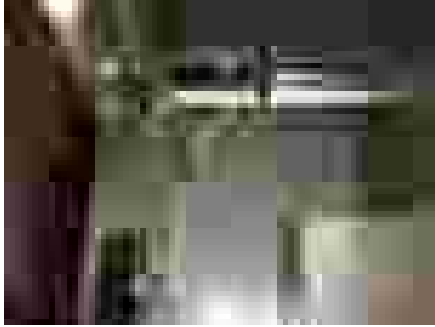


Sensors

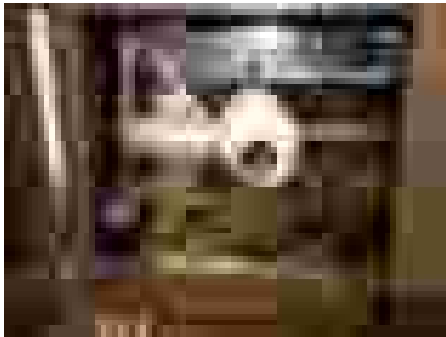
13. Make sure the three sensors on the main air cylinder are in correct position and have not moved. See page 65 for adjustments instructing.



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



15. Make sure the film is not broken

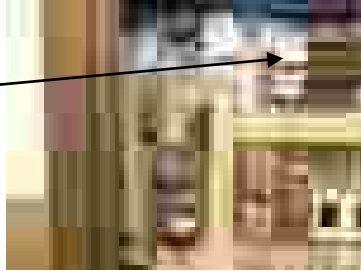


16. Check that scrap unwind is not full. – (Empty when full)

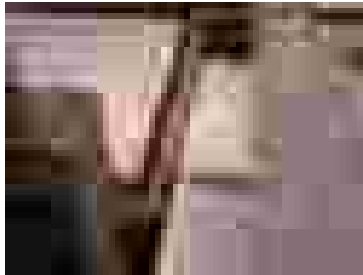
Trouble Shooting

Machine will not seal (front seal)

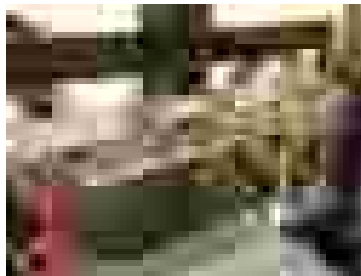
Fuse Block



1. Check all the fuses



2. Check the bottom seal pad and 2" 3mil Teflon tape are not worn. Replace if necessary.

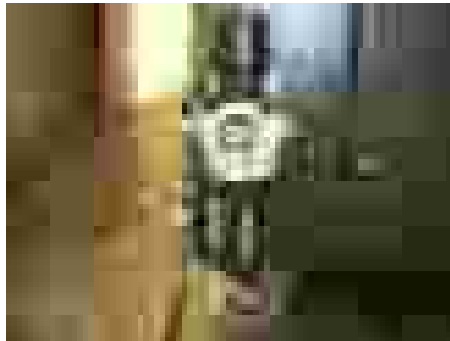


3. Clean front cross seal bar with a dry cloth.

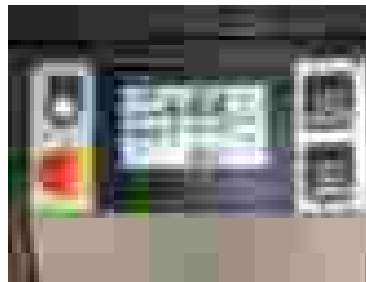
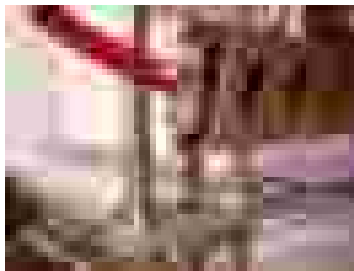


Temperature control

4. Check that the temperature controller is not set to high or too low.

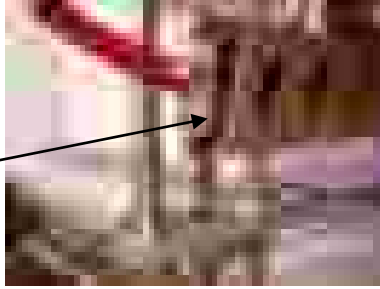


5. Make sure the air supply has a minimum 80 psi./6 bar-low pressure will produce weak seals.
6. Make sure there is correct spacing between the packages and the seal bar is not attempting to make a seal under a lot of film tension.

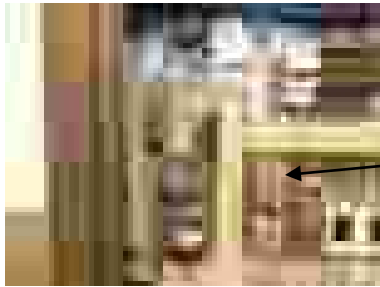


7. Make sure the thermocouple and the temperature controller are not damaged.

**Heater
Cartridge**

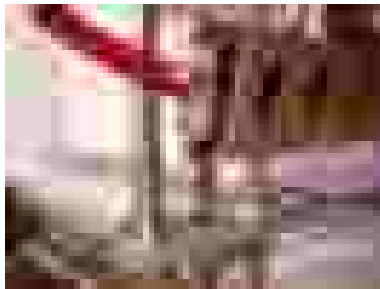


8. Check that the heater cartridge is good



Solid state relay

9. Make sure the solid state relay is not burned or damaged.



10. Check the wiring coming into the heater cartridge is not damaged or broken or no loose connection on the terminal.

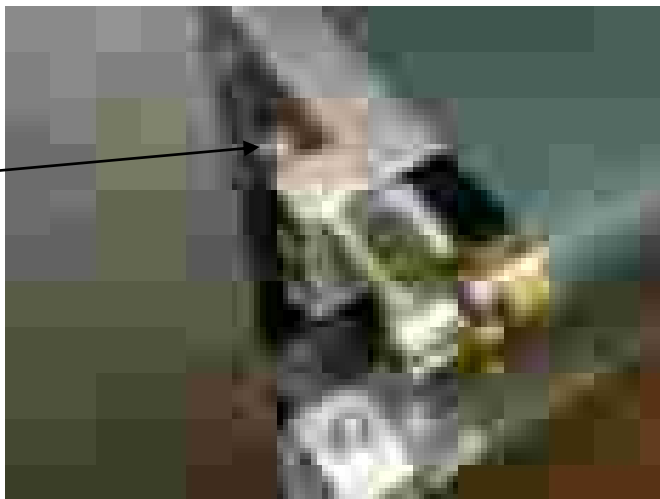
Trouble Shooting

Belts are not tracking (infeed belt, discharge belt)



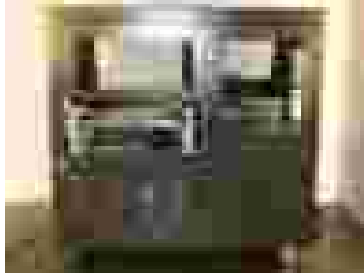
1. Make sure you keep belts clean. Wipe clean everyday or every week depending upon environment the machine is operating in.
2. Makes sure no excess film or products are under the belt.
3. All conveyors belts are adjustable with two bolts at each end of conveyor by tightened or loosening it will track 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.

**Adjustment
Screw**

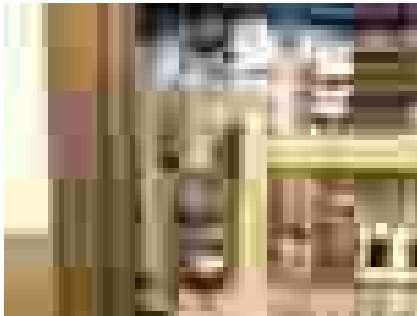


Adjust belt using adjustment screw provided. Adjust slightly as a small amount of adjustment can make a big difference when trying to track the belt.

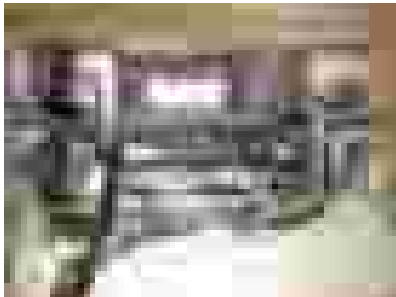
Troubleshooting-No Heat to Seal Bar



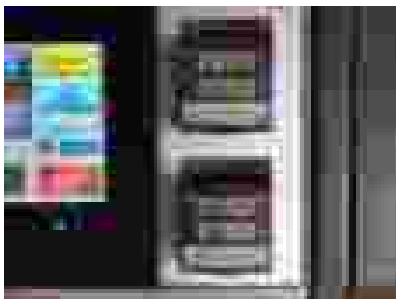
Open rear access panel



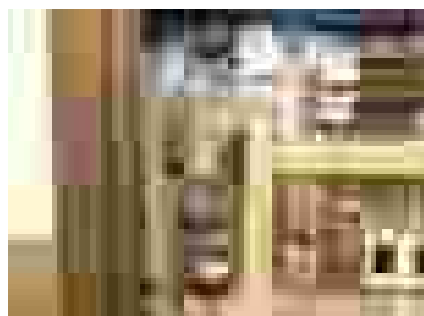
Check Fuses FU-7 and FU-8
If fuses are bad, replace



Check the thermocouple by opening the front control panel & is connecting wires from back of the temp controller. Set volt meter to check for resistance and check across and if there is no resistance present replace the thermocouple



Check the **temperature controllers**. Make sure there are no alarms or displays other than present value temperature & set value temperature. If anything else displays other than the mentioned above, please contact the service department.

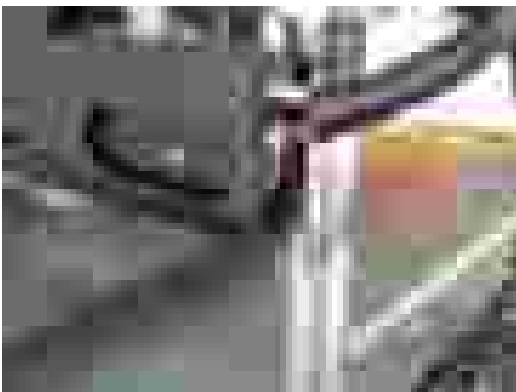


R1 (12 volt DC need to be present). if not then replace temperature controller and check to see if 12VDC is present across wires 17 & 18 or 18 & 29. If 12VDC is present, check across L7 & 19 or

L8 and 30 to see if 220VAC is present. If no 220VAC is present then replace the solid state relay.



Check for resistance across wires L8 & 30 for side heater & L7 & 19 for front heater. If no resistance present on multimeter, replace the heater rod.



Remove Heater and thermocouple from seal bar –Replace if necessary

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.
- Always observe all safety standards as specified in this manual and those currently applied in the country of installation

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.

Lubrication

1. Seal Head Shafts



Use light grease on shafts to lubricate

2. Inverter triangle adjustment screw



← Grease threaded screw shaft

Lubrication

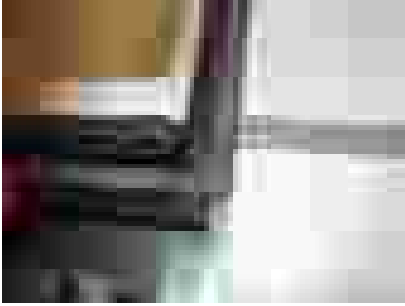


Grease Fitting

Grease infeed and discharge conveyor bearings utilizing the male fitting on the bearing

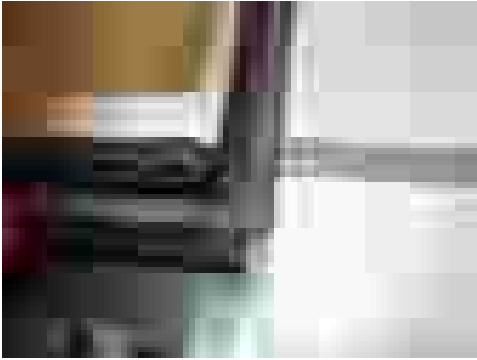
Replacement of Teflon Tapes

1.



Use 2" x 3 mill Teflon tape on bottom seal pad

Replacement of Bottom Seal Sponge



Use 3/8" hard rubber pad for shrink films
Use 2" x 3mill Teflon tape over seal pad.

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.

Spare Parts Kit

<u>Item#</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
1		Teflon tape 2" x 3mill X 10yd	1	
2		Bottom Seal sponge 3/8" X 3/8"	6ft	
3		Air Lube oil	1	
4		Chain lube for tunnel conveyer	1	
5		Heater rod- Front	1	
6		Heater rod – side	1	
7		Thermocouple	1	
8		Seal Blade	1	
9		Fuse 2A	2	
10		Fuse 4A	2	
11		Fuse 6A	2	
12		Fuse 10A	2	
13		Fuse 16A	2	
14		Fuse 20A	2	
15		Fuse 40A	2	
Total				\$Call

Ordering Spare Parts

When ordering spare parts, always specify the following:

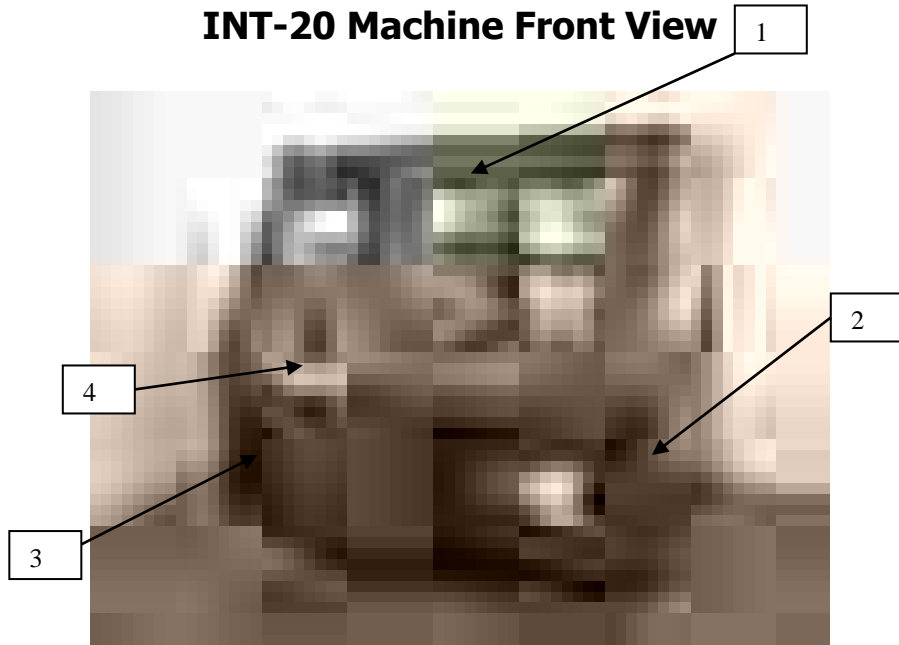
- customer name and identification data;
- number of order (or protocol);
- machine identification data (model, type, serial number);
- part position number in diagram;
- name;
- quantity to order

Caution!

Part replacements must be performed by qualified technicians, suitably skilled and trained, and employed by the manufacturer or authorized service center.

The customer is obliged to use exclusively original spare parts (or equivalent parts authorized in writing by the manufacturer) the manufacturer declines all liability for use of non-original spare parts and/or incorrect part assembly.

INT-20 Machine Front View



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
1.	M100-1135	Lexan seal area cover	1
2.	M100-1137	Film cradle assembly door	1
3.	M100-1138	Film scrap door	1
4.	M100-1151	Main control panel	1

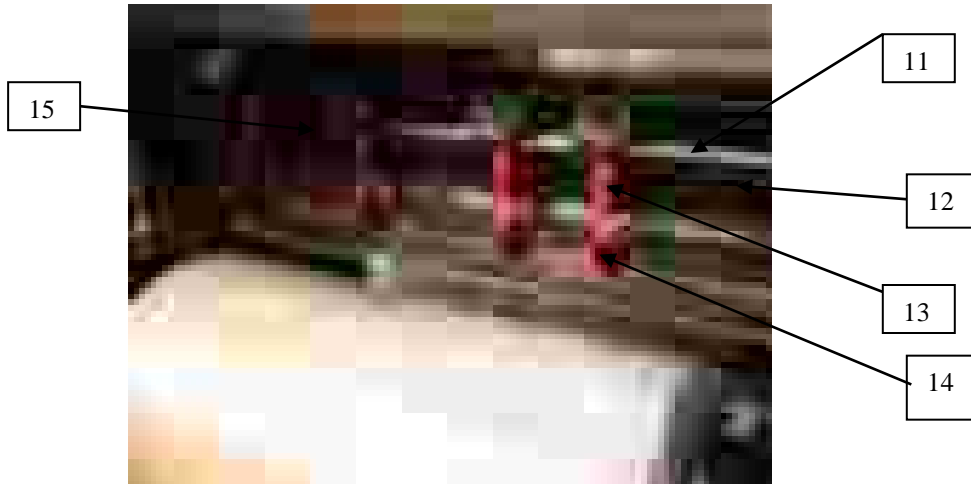
INT-20 Film Cradle Assembly



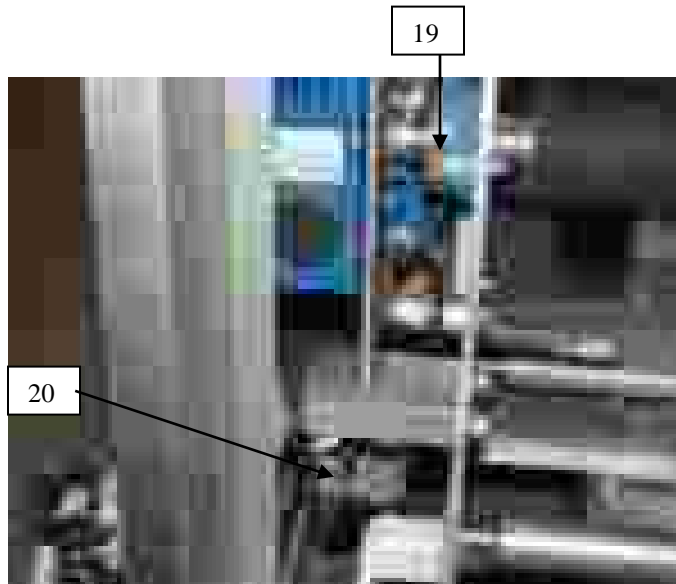
<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
1.		Rubber Drive rollers	2
2.		Pin wheel hole punch	3
3.		Film roll guides	2
4.		Film cradle roller	2
5.		Idler roller	1
6.		Dancer bar for film cradle	1



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
7.	R300-3012	Film cradle rollers	2
8.	M100-1140	Film roll guides	2
9.	R300-3013	Idler roller	1
10.	R300-3014	Dancer bar	1

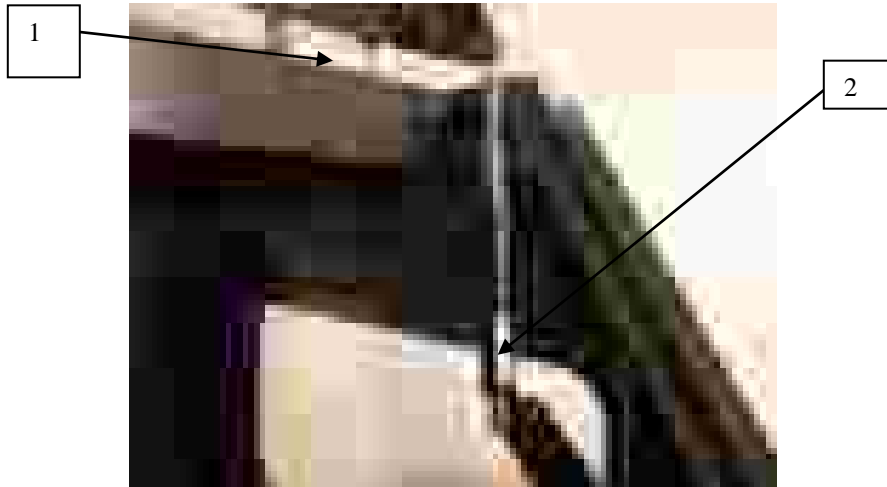


<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
11.	M100-1141	Mounting shaft-Pin wheels	1
12.	R300-3015	Rubber drive roller	2
13.	M100-1142	Pin wheel aluminum housing	3
14.	M100-1143	Pins	16 ea
15.	R300-3016	Rubber idler roller	1



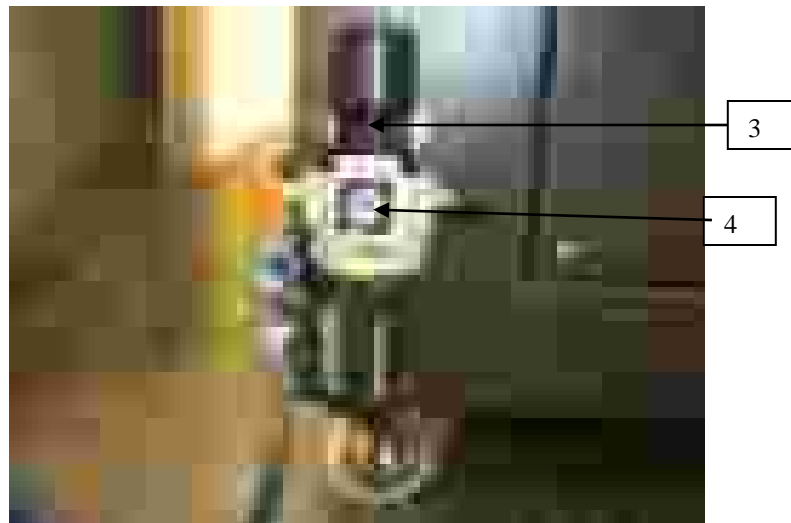
19.		Drive roller bearing	1
20.		Pneumatic lift cylinder	1

Safety Doors

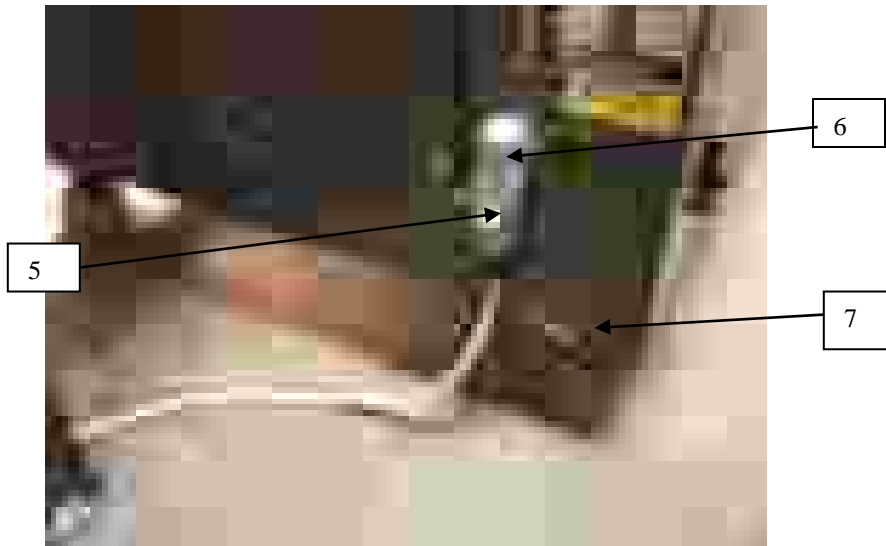


<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
1.	E600-6011	Safety switch	2
2.	M100-1147	Door opener-cylinder	4

Air Control



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
3.	P200-2035	Air/filter/regulator	1
4.	00F05002	Pressure gauge	1



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
5.	E600-6009	Male Quick disconnect for infeed convey	1
6.	E600-6037	Female quick disconnect	1
7.	M100-1148	Casters	4

Front Control Panel

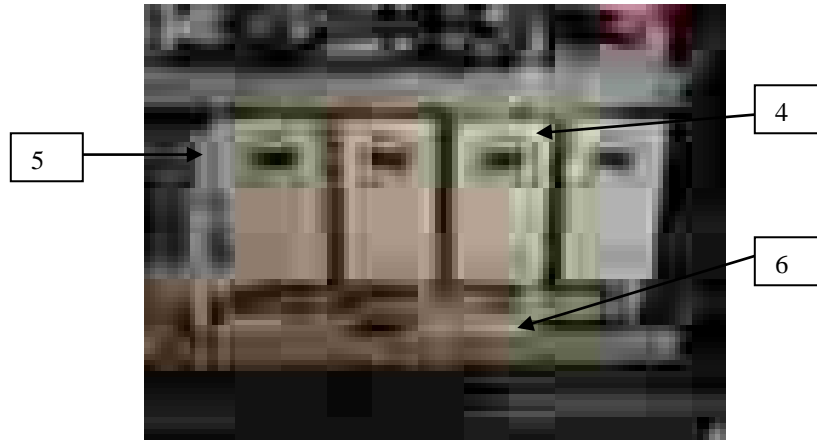


<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
1.	E600-6010	Start	1
2.	E600-6011	Delta Color Touch Screen	1
3.	E600-6015	Cross Seal- Temp Control	1
4.	E600-6015	Side Heater-Temp Control	1
5.	E600-6017	Emergency Stop Switch	1

Electrical Control Panel



<u>Position</u>	<u>Part#</u>	<u>Description</u>	
1.	E600-6020	Main Power Switch	1
2.		Fuse Block	4
3.		Fuse-glass	10
4.		Contactors	2



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
4.		Ac Inverters	4
5.		Contactors	3
6.		Internet Service	1

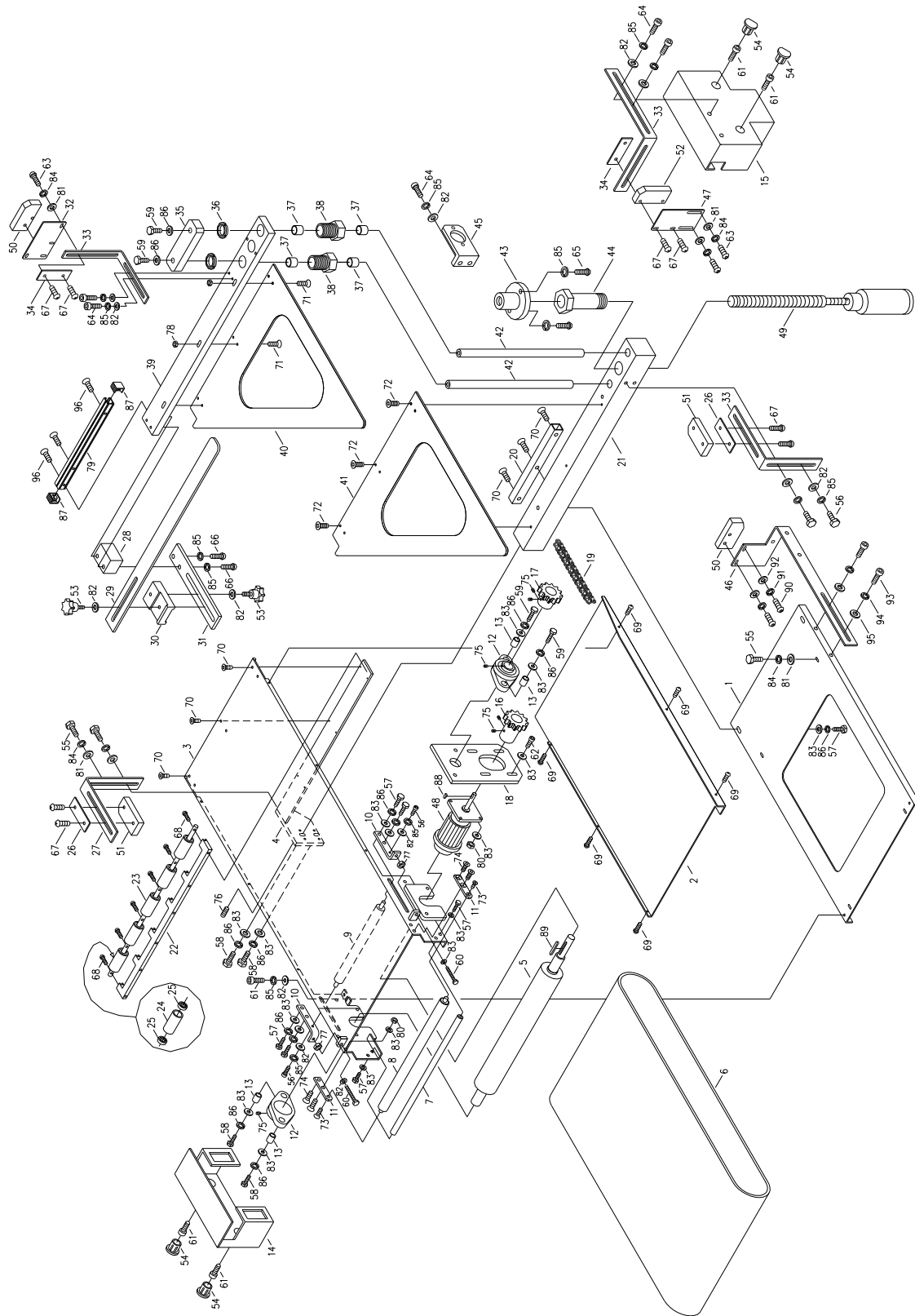


<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
7.		Transformer 24 volt	1
8.		Transformer-buck boost	1
9.		Relays	7

10



<u>Position</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
10.		Delta PLC	1



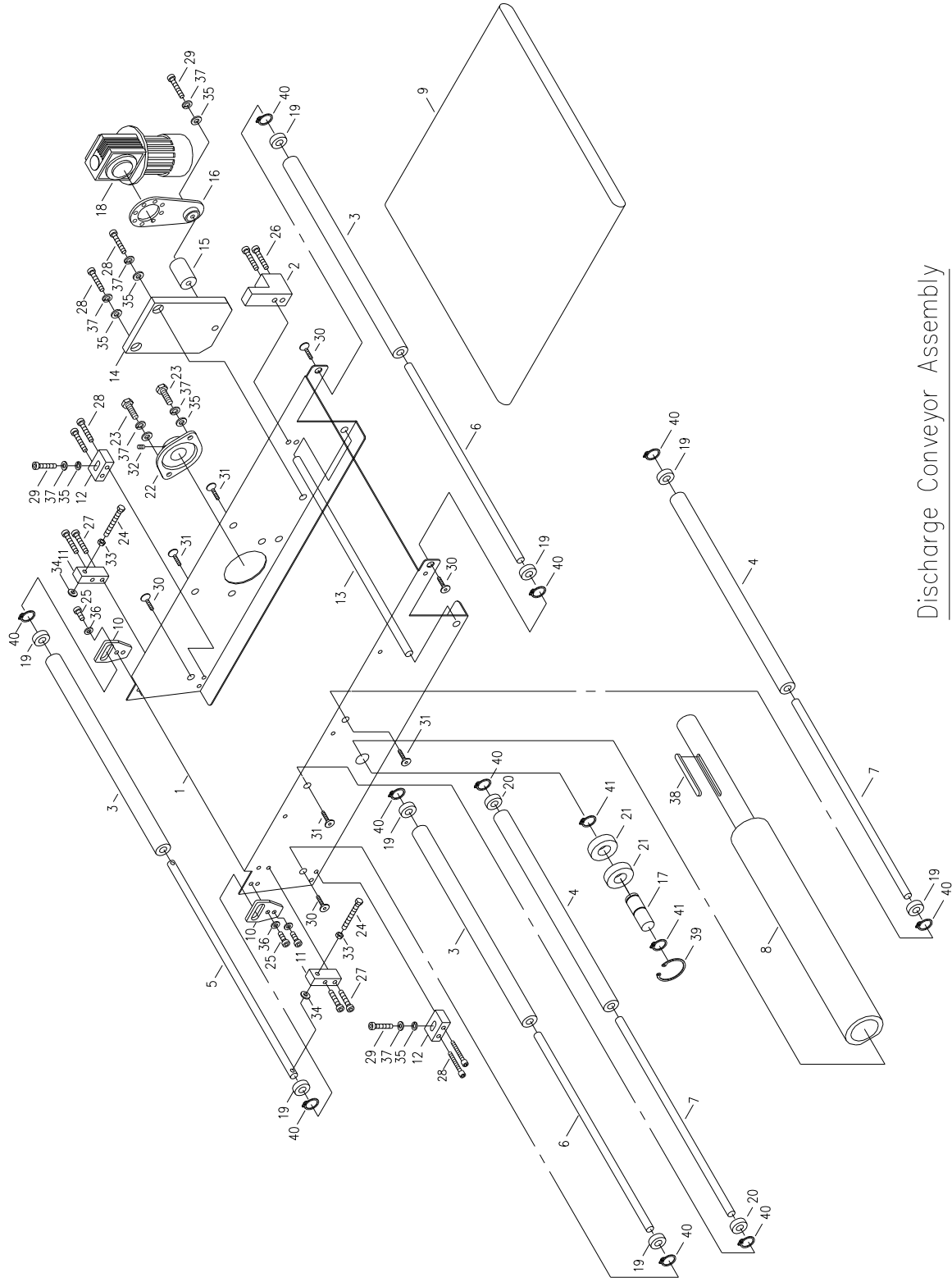
Infeed Conveyor Assembly

INT-20 Infeed Conveyor Assembly Page 1

Pos.	Part #	Qty	Description
1	G10101	1	Infeed conveyor base plate
2	G10102	1	Conveyor belt bottom cover plate
3	G10103	1	Infeed conveyor main frame
4	G10104	1	Infeed conveyor main frame support bracket
5	G10105	1	Infeed conveyor belt drive roller
6	G10106	1	Infeed conveyor belt
7	G10107	1	Support rod
8	G10108	1	1 st idle roller
9	G10109	1	2 nd idle roller
10	G10110	2	Belt tension adjust bracket
11	G10111	2	1 st idle roller mounting plate
12	S51-FL205	2	Block bearing unit, UCFL205
13	G10113	4	Spacer
14	G10114	1	Driving roller cover, front side
15	G10115	1	Driving roller cover, rear side
16	G10116	1	Infeed motor sprocket
17	G10117	1	Driving roller sprocket
18	G10118	1	Infeed motor mounting plate
19	G10119	1	Infeed motor driving chain
20	G10120	1	Plastic cable channel
21	G10121	1	Triangle plate bottom support bar
22	G10122	1	Nose bearing mounting bracket
23	G10123	1	Nose bearing assembly
24	G10124	5	Roller
25	S50-LF1260	10	Ball bearing, LF1260ZZ
26	G10126	2	HZ photo cell fix plate
27	G10127	1	HZ photo cell mounting bracket, front
28	G10128	1	Mounting block, upper triangle plate support bar
29	G10129	1	Film open plate
30	G10130	1	Film open plate holder
31	G10131	1	Film open plate adjust bracket
32	G10132	1	Photo cell mounting plate A
33	G10133	3	Photo cell mounting bracket A
34	G10134	2	VT photo cell fix plate
35	G10135	1	Connecting plate
36	S28-AN06	2	Nut, AN06
37	S52-2020	4	Metal bushing, 2020

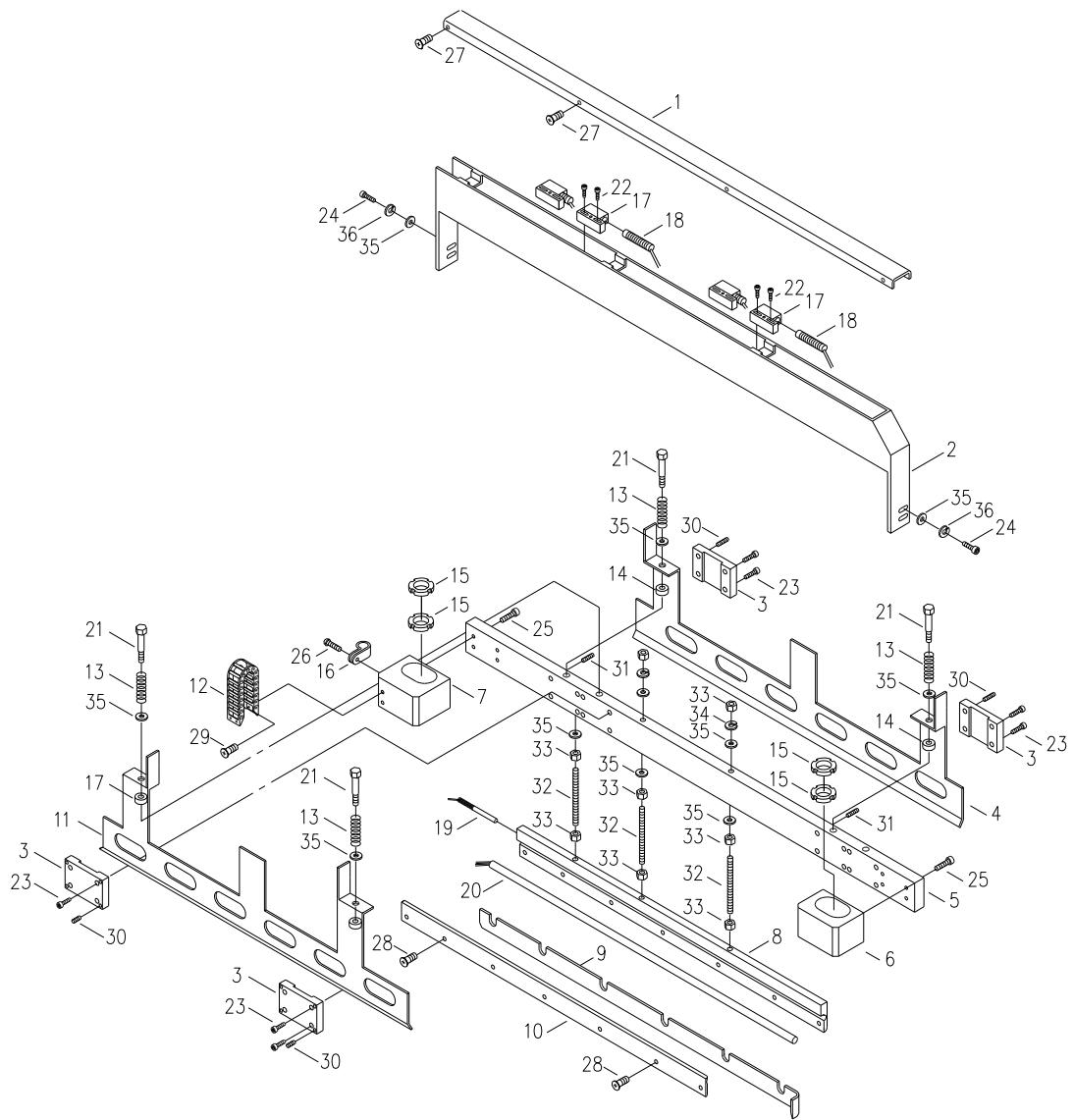
Pos.	Part #	Qty	Description
38	G10138	2	Guide block
39	G10139	1	Triangle plate upper support bar
40	G10140	1	Upper triangle plate
41	G10141	1	Bottom triangle plate
42	G10142	2	Upper triangle plate guide shaft
43	G10143	1	Copper nut
44	G10144	1	Connecting tube
45	G10145	1	Copper nut bracket
46	G10146	1	Photo cell mounting bracket B
47	G10147	1	Photo cell mounting plate B
48	E60601	1	Infeed conveyor motor, 220V, 1/4HP 1:10
49	E60701	1	DC motor with screw assembly
50	E84300	1	VT photo cell (T+R), OMRON E3Z-T61
51	E84301	1	HZ photo cell (T+R), OMRON E3Z-T61
52	E84310	1	Conveyor timer photo cell, BANNER QS18VN6D
53	S25-321606	2	Plastic head screw, 3216M6
54	S26-HP13	4	Plastic blank cover, HP-13
55	S01-0512	6	Hexagon bolt, M5x12
56	S01-0620	2	Hexagon bolt, M6x20
57	S01-0820	8	Hexagon bolt, M8x20
58	S01-0825	4	Hexagon bolt, M8x25
59	S01-0835	4	Hexagon bolt, M8x35
60	S01-0860	2	Hexagon bolt, M8x60
61	S02-0616	6	Hex socket bolt, M6x16
62	S02-0835	4	Hex socket bolt, M8x35
63	S02-0416	4	Hex socket bolt, M4x16
64	S03-0616	6	Socket head cap screw, M6x16
65	S03-0620	2	Socket head cap screw, M6x20
66	S03-0640	2	Socket head cap screw, M6x40
67	S05-0312	8	Phillips pan head screw, M3x12
68	S08-0325	6	Truss head machine screw, M3x25
69	S08-0408	6	Truss head machine screw, M4x8
70	S07-0410	9	Flat head machine screw, M4x10
71	S04-0520	3	Flat socket head screw, M5x20
72	S04-0512	3	Flat socket head screw, M5x12
73	S04-0616	2	Flat socket head screw, M6x16
74	S04-0816	4	Flat socket head screw, M8x16
75	S09-0606	4	Hex socket set screw, M6x6

Pos.	Part #	Qty	Description
76	S09-0610	4	Hex socket set screw, M6x10
77	S12-0800	2	Hexagon nut, M8
78	S13-0500	3	Lock nut, M5
79	G10179	1	Film miser guide
80	S13-0800	8	Lock nut, M8
81	S15-0410	8	Plain washer, M4-10
82	S15-0614	16	Plain washer, M6-14
83	S15-0816	24	Plain washer, M8-16
84	S13-0400	2	Lock nut, M4
85	S16-0600	16	Spring washer, M6
86	S16-0800	14	Spring washer, M8
87	S26-0011	2	Aluminum channel plastic blank cover
88	S21-0625	1	Round end key, 6x25
89	S21-0630	1	Round end key, 6x30
90	S08-0310	2	Truss head machine screw, M3x10
91	S16-0300	2	Spring washer, M3
92	S15-0308	2	Plain washer, M3-08
93	S02-0512	2	Hex socket bolt, M5x12
94	S16-0500	16	Spring washer, M5
95	S15-0510	16	Plain washer, M5-10
96	S07-0408	3	Flat head machine screw, M4x8



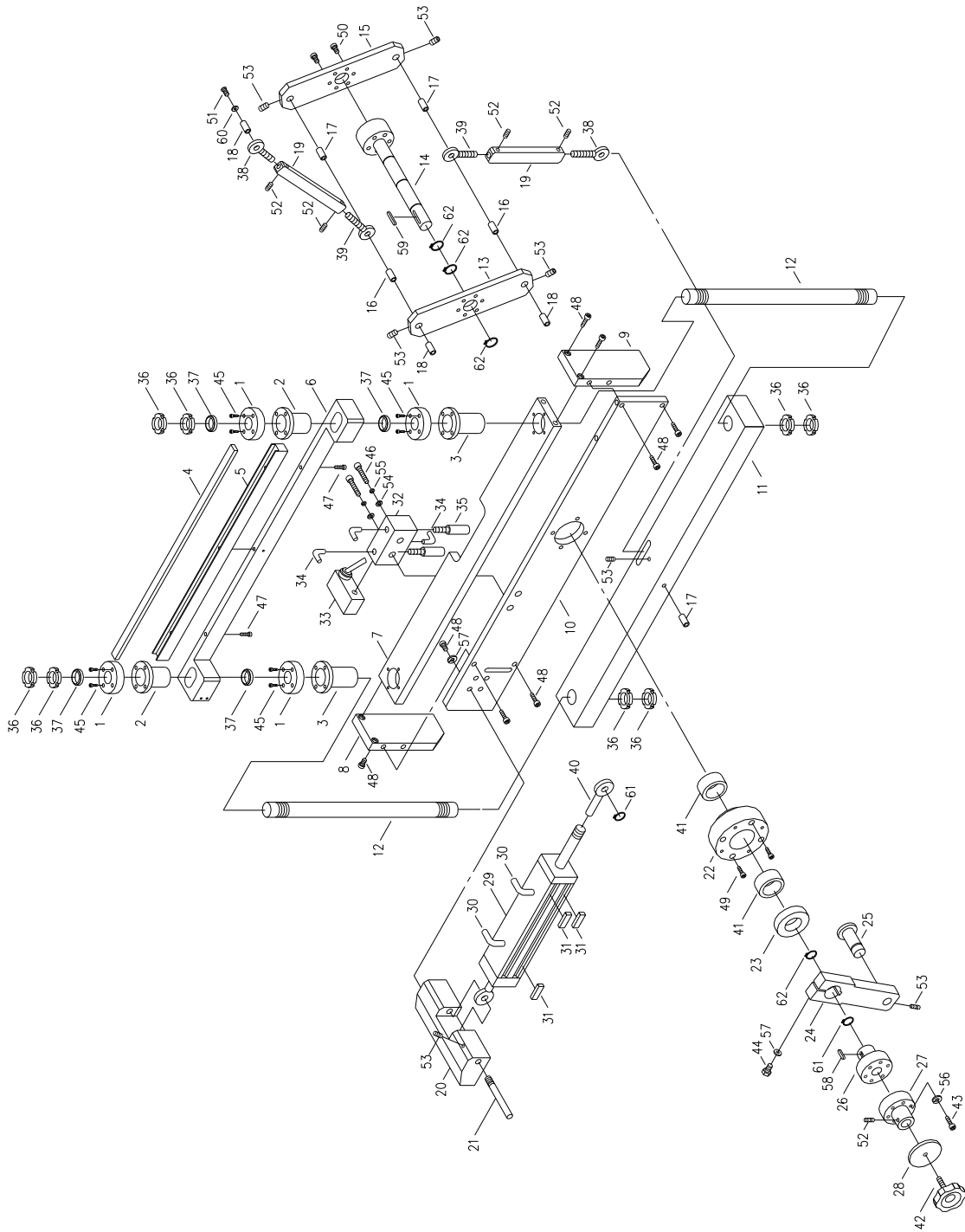
Discharge Conveyor Assembly

Pos.	Part #	Qty	Description
1	G10201	1	Discharge conveyor main frame
2	G10202	2	Mounting block
3	G10203	3	Idle roller (A)
4	G10204	2	Idle roller (B)
5	G10205	1	Idle roller (A) shaft, long
6	G10206	2	Idle roller (A) shaft, short
7	G10207	2	Idle roller (B) shaft
8	G10208	1	Drive roller
9	G10209	1	Discharge conveyor belt
10	G10210	2	Roller holder
11	G10211	2	Belt tension adjust block
12	G10212	2	Discharge mounting block
13	G10213	1	Connecting rod
14	G10214	1	Motor mounting bracket
15	G10215	1	Motor fix plate stopper
16	G10216	1	Motor fix plate
17	G10217	1	Drive roller shaft
18	E60602	1	Discharge conveyor gear motor
19	S50-6801	8	Ball bearing, 6801ZZ
20	S50-6001	2	Ball bearing, 6001ZZ
21	S50-6004	2	Ball bearing, 6004ZZ
22	S51-PFL205	1	Block bearing unit, PFL205
23	S01-0816	2	Hexagon bolt, M8x16
24	S01-0865	2	Hexagon bolt, M8x65
25	S02-0612	4	Hex socket bolt, M6x12
26	S02-0616	2	Hex socket bolt, M6x16
27	S02-0620	4	Hex socket bolt, M6x20
28	S02-0825	6	Hex socket bolt, M8x25
29	S02-0830	3	Hex socket bolt, M8x30
30	S04-0616	4	Flat socket head screw, M6x16
31	S04-0620	4	Flat socket head screw, M6x20
32	S09-0606	1	Hex socket set screw, M6x6
33	S12-0800	2	Hexagon nut, M8
34	S15-0614	2	Plain washer, M6-14
35	S15-0816	7	Plain washer, M8-16



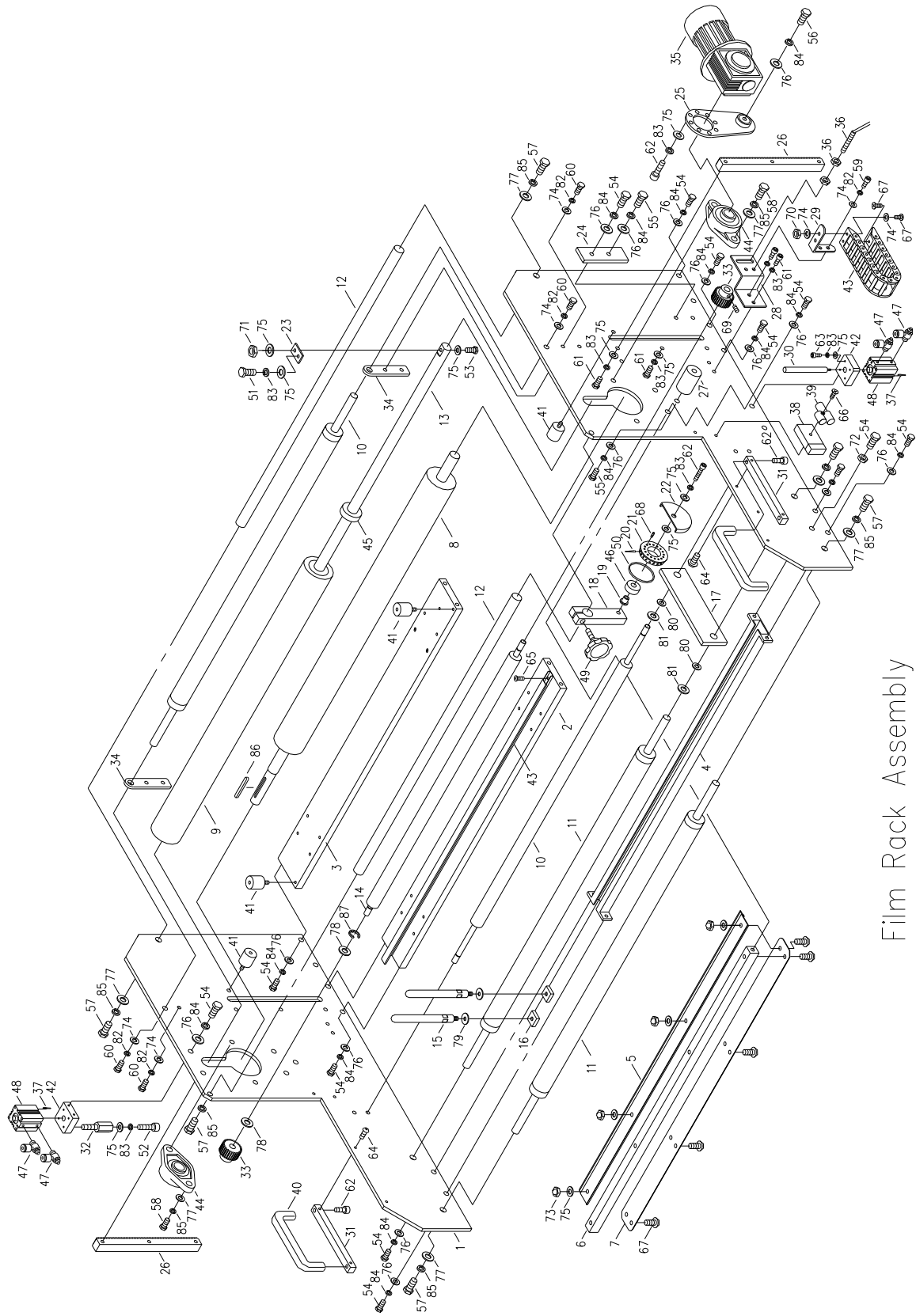
INT-20 Upper Seal Bar Assembly

	Part #	Qty	Description
1	G11201	1	Cable channel cover
2	G11202	1	Cable channel
3	G10304	4	Film clamp guide plate
4	G11204	1	Film clamp (A)
5	G11205	1	Front seal bar bracket
6	G11206	1	Front seal bar bracket fix block (A)
7	G11207	1	Front seal bar bracket fix block (B)
8	G11208	1	Front seal bar heater cartridge
9	G11209	1	Seal blade
10	G11210	1	Front seal bar cover plate
11	G11211	1	Film clamp (B)
12	G11212	1	Cable protector
13	G10320	4	Film clamp spring
14	G10323	4	Silicon buffer
15	S28-AN05	4	Disk lock nut, AN05
16	E80201	1	Cable clamp
17	E84400	4	Proximity sensor fix bracket
18	E84401	4	Proximity sensor, TDTEK PM12-04NS
19	E49300	1	Thermocouple
20	E68505	1	Front seal bar heater
21	S33-0001	4	Hexagon guide screw
22	S02-0420	8	Hex socket bolt, M4x20
23	S02-0510	16	Hex socket bolt, M5x10
24	S02-0515	4	Hex socket bolt, M5x15
25	S02-0620	8	Hex socket bolt, M6x20
26	S08-0510	1	Truss head machine screw, M5x10
27	S07-0306	8	Flat head machine screw, M3x6
28	S07-0410SS	5	Flat head machine screw, M4x10-SUS
29	S08-0512	2	Truss Head Screw , M5 *12
30	S09-0410	16	Hex socket set screw, M4x10
31	S09-0505	4	Hex socket set screw, M5x5
32	S31-0680SS	4	Mounting screw, M6x80-SUS
33	S12-0600SS	12	Hexagon nut, M6-SUS
34	S16-0600SS	4	Spring washer, M6-SUS
35	S15-0600SS	12	Plain washer, M6-SUS
36	S16-0500	4	Spring washer, M5



INT-20 Bottom Seal Bar Assembly

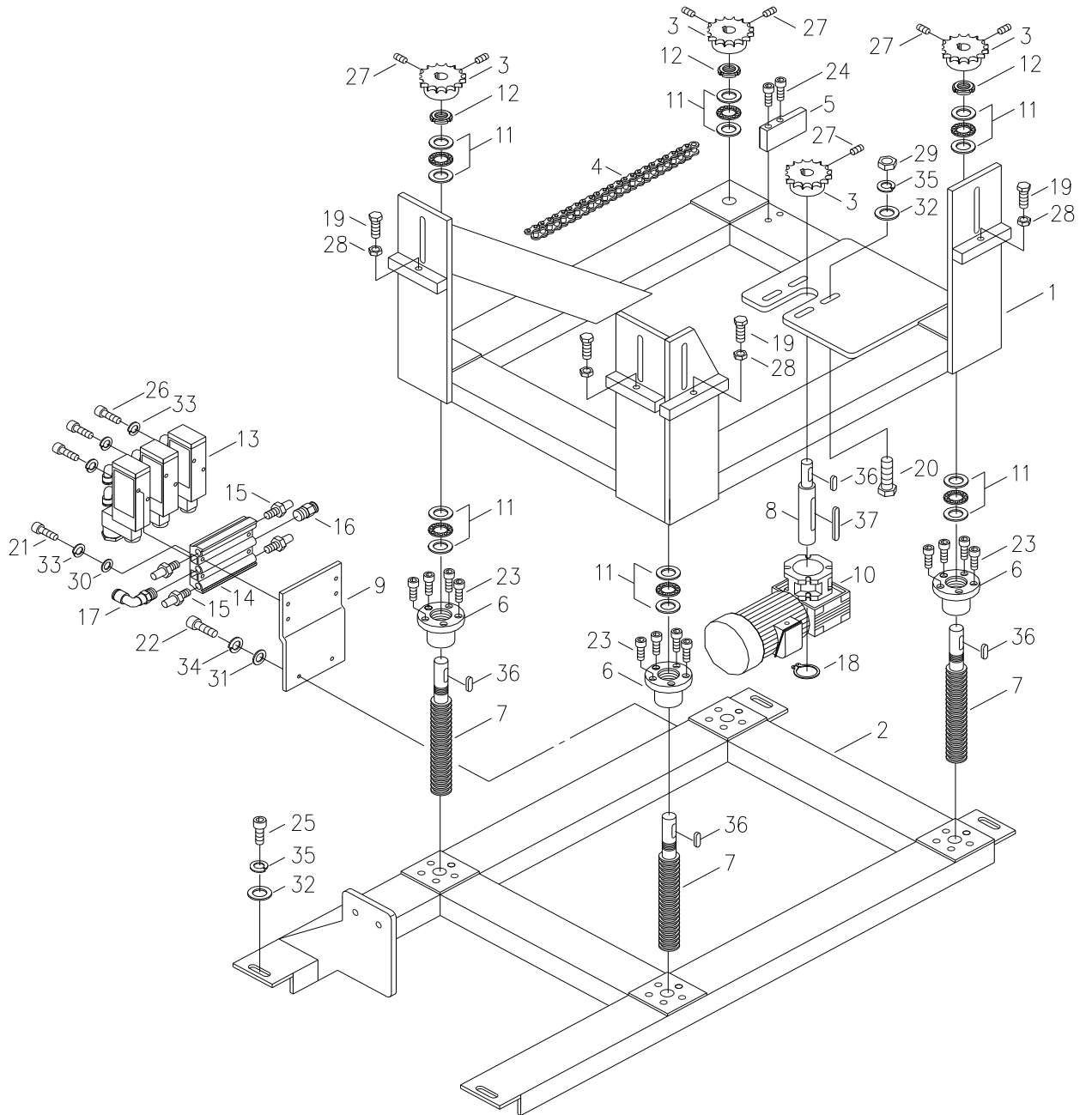
Pos.	Part #	Qty	Description
1	G10403	4	Shaft dust cover
2	S54-25UUNI	2	Liner slide bearing, LMF25UUNI
3	S54-25LUUNI	2	Liner slide bearing, LMF25LUUNI
4	G11304	1	Sponge seal pad, L=580mm
5	G11305	1	Seal pad holder
6	G11306	1	Bottom seal pad support
7	G11307	1	Aluminum plate (A)
8	G11308	1	Aluminum plate (B)
9	G11309	1	Aluminum plate (C)
10	G11310	1	Aluminum plate (D)
11	G11311	1	Aluminum plate (E)
12	S32-0001	2	Linear bearing shaft, SFC-M25x860
13	G11313	1	Connecting plate (A)
14	G11314	1	Connecting shaft
15	G11315	1	Connecting plate (B)
16	G11316	2	Bush
17	G11317	3	Bush
18	G10428	2	Shaft
19	G11319	2	Connecting rod
20	G11320	1	Cylinder mounting bracket
21	G11321	1	Cylinder mounting bracket shaft
22	G10433	1	Bearing holder
23	G11323	1	Spacer
24	G11324	1	Cylinder connecting plate
25	G10435	1	Shaft
26	G11326	1	Coupling, non-teeth
27	G11327	1	Coupling, w/teeth
28	G11328	1	Plan washer
29	S40-1002	1	Pneumatic cylinder, SMC MDBIC 50-125
30	S40-2001	2	Flow valve, JS1003A
31	E84501	3	Reed switch, SMC D-Y78W/ DC24V
32	S40-3001	1	Solenoid valve, MVSC-3004E1A24
33	E53501	1	Solenoid valve coil, EVI 7/9 24VAC
34	S40-4001	3	Air connector, PL1003T
35	S40-5001	2	Noise absorber, SMC ANAI-03
36	S28-AN05	8	Disk lock nut, AN05



Film Rack Assembly

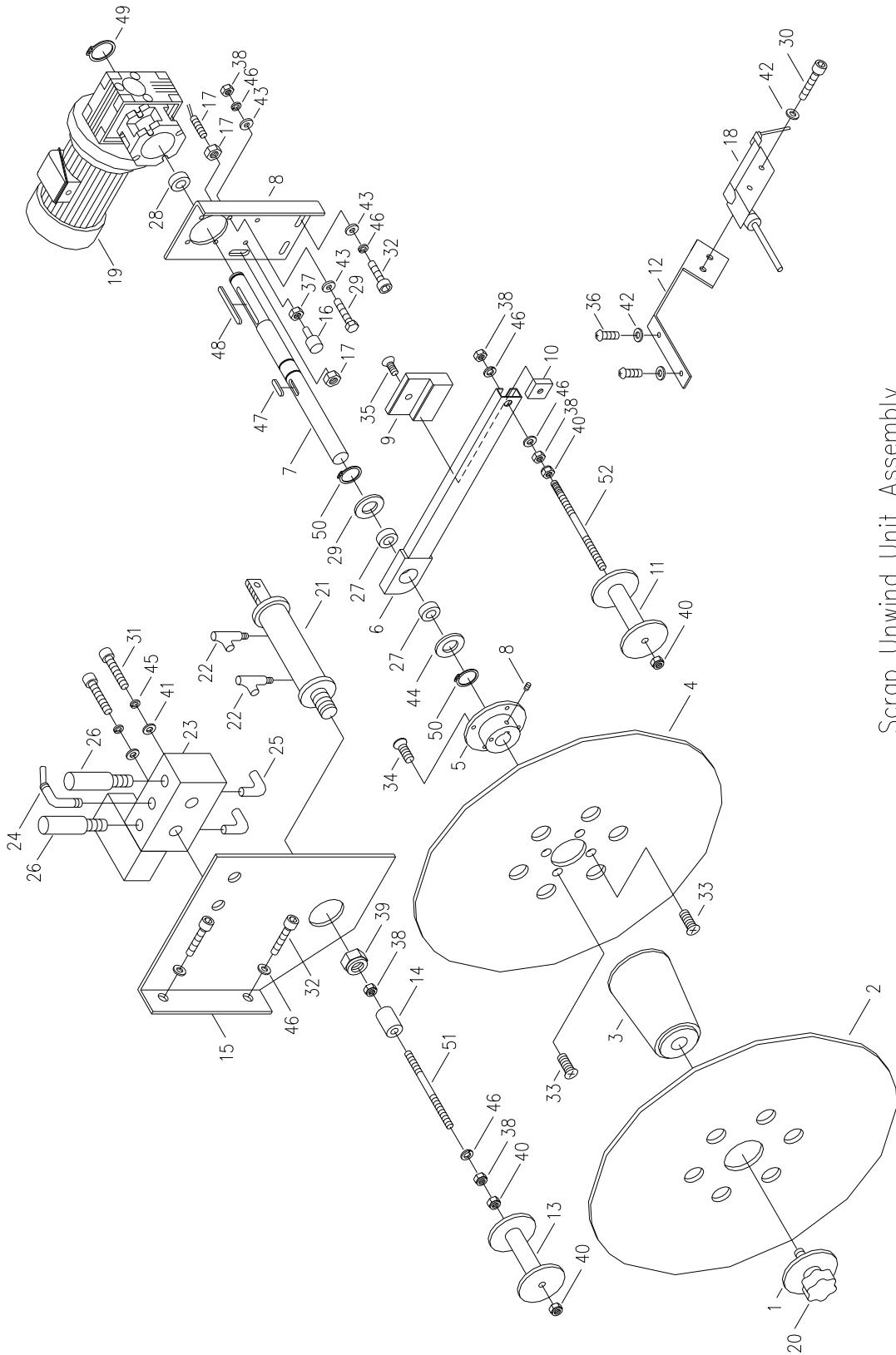
Pos.	Part #	Qty	Description
1	G10501	2	Film rack main frame
2	G10502	1	Aluminum plate, front
3	G10503	1	Aluminum plate, back
4	G10504	1	Film width adjust channel
5	G10505	1	Brush
6	G10506	1	Brush mounting plate
7	G10507	1	Brush extension plate
8	G10508	1	Driving rubber roller
9	G10509	1	Idle rubber roller
10	G10510	2	Stainless steel roller
11	G10511	2	Film support roller
12	G10512	2	Support rod
13	G10513	1	Idle roller shaft
14	G10514	1	Activity roller
15	G10515	2	Film fix rod
16	G10516	2	Film fix rod nut
17	G10517	1	Film rollers brake plate
18	G10518	5	Pin perforator holder
19	G10519	5	Bearing core
20	G10520	80	Needle
21	G10521	5	Pin perforator wheel
22	G10522	5	Pin perforator wheel shield
23	G10523	1	Cylinder connection plate
24	G10524	1	Stop plate
25	G10525	1	Motor mounting bracket
26	G10526	2	Gear plate
27	G10527	1	Motor mounting bracket connector
28	G10528	1	Proximity sensor bracket
29	G10529	1	Cable protector bracket
30	G10530	1	Cylinder extension rod, long
31	G10531	2	Handle mounting bracket
32	G10532	1	Cylinder extension rod, short
33	G10533	2	Pinion
34	G10534	2	Roller mounting bracket
35	E60603	1	Film rack gear motor, MEZ 0.18KW, 230V, 1:10

Pos.	Part #	Qty	Description
36	E84401	1	Proximity sensor, TDTEK PM12-04NS
37	E84511	2	Reed switch, RCE1-2M
38	E80211	2	Cable clamber
39	S40-4011	2	Y type air connector, PW64T
40	G10540	2	Handle
41	G10541	4	Rubber stopper
42	G10542	2	Cylinder mounting bracket
43	G10543	1	Cable channel
44	S51-FL204	2	Block bearing unit, UCFL204
45	S50-6004	2	Ball bearing, 6004ZZ
46	S50-6000	5	Ball bearing, 6000ZZ
47	S40-2002	4	Flow valve, JSC0401A
48	S40-1011	2	Pneumatic cylinder, MCJT-C-12-32-10M
49	S25-1001	5	Plastic head screw, 50x1/4"x1"
50	S46-2550	5	O-ring, 2.5x50
51	S01-0616	1	Hexagon bolt, M6x16
52	S01-0620	1	Hexagon bolt, M6x20
53	S01-0630	1	Hexagon bolt, M6x30
54	S01-0816	12	Hexagon bolt, M8x16
55	S01-0825	2	Hexagon bolt, M8x25
56	S01-0830	1	Hexagon bolt, M8x30
57	S01-1020	6	Hexagon bolt, M10x20
58	S01-1025	4	Hexagon bolt, M10x25
59	S02-0512	2	Hex socket bolt, M5x12
60	S02-0515	4	Hex socket bolt, M5x15
61	S02-0616	8	Hex socket bolt, M6x16
62	S02-0620	9	Hex socket bolt, M6x20
63	S02-0630	8	Hex socket bolt, M6x30
64	S03-0616	4	Socket head cap screw, M6x16
65	S07-0408	3	Flat head machine screw, M4x8
66	S08-0408	4	Truss head machine screw, M4x8
67	S08-0512	10	Truss head machine screw, M5x12
68	S09-0304	80	Hex socket set screw, M3x4
69	S09-0606	4	Hex socket set screw, M6x6
70	S13-0500	2	Lock nut, M5



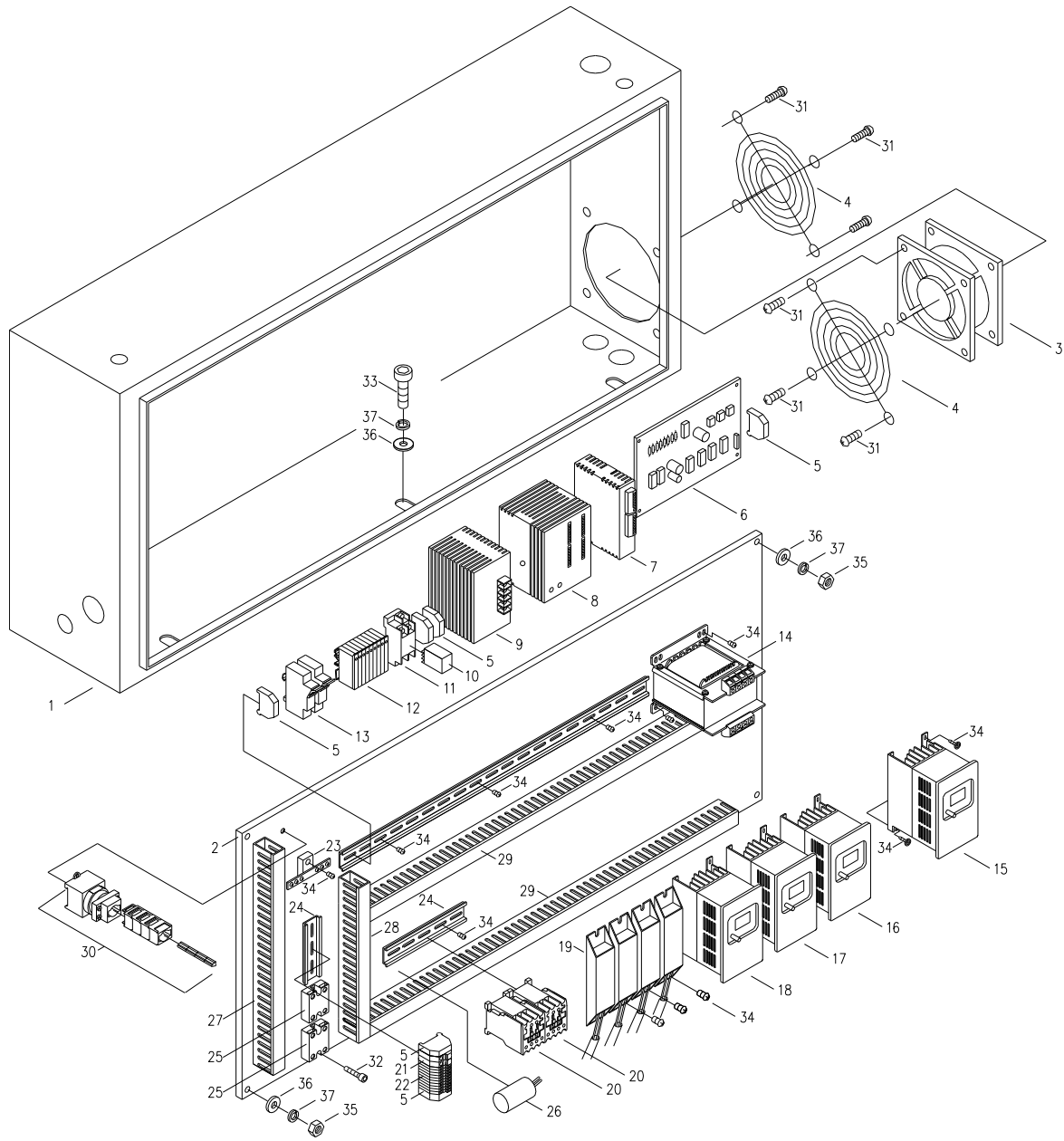
Center Seal Unit Assembly

Pos.	Part #	Qty	Description
1	G10601	1	Center seal upper frame
2	G10602	1	Center seal bottom frame
3	G10603	5	Driving sprocket
4	G10604	1	Driving chain
5	G10605	1	Stopper block
6	G10606	4	Nut (copper)
7	G10607	4	Elevation screw
8	G10608	1	Motor shaft
9	G10609	1	Solenoid valve mounting plate
10	E60604	1	Center seal gear motor, 220V, 1/3HP, 1:60
11	S53-51104	8	Thrust bearing, 51104
12	S28-AN04	4	Disk lock nut, AN04
13	S40-3001	3	Solenoid valve, MVSC-3004E1A24
14	S40-6001	1	Solenoid valve dispenser, MVSA-300-5B3
15	S40-5011	4	Noise absorption, PSL-03
16	S40-4002	1	Air connector, PC1003T
17	S40-4001	1	Air connector, PL1003T
18	S24-S18	1	External circlip, S-18
19	S01-0835	4	Hexagon bolt, M8x35
20	S01-0840	4	Hexagon bolt, M8x40
21	S02-0435	4	Hex socket bolt, M4x35
22	S01-0616	2	Hexagon bolt, M6x16
23	S02-0616	20	Hex socket bolt, M6x16
24	S02-0640	2	Hex socket bolt, M6x40
25	S02-0835	4	Hex socket bolt, M8x35
26	S05-0450	6	Phillips pan head screw, M4x50
27	S09-0610	10	Hex socket set screw, M6x10
28	S12-0800	4	Hexagon nut, M8
29	S13-0800	4	Lock nut, M8
30	S15-0410	4	Plain washer, M4-10
31	S15-0613	4	Plain washer, M6-13
32	S15-0825	8	Plain washer, M8-25
33	S16-0400	10	Spring washer, M4
34	S16-0600	4	Spring washer, M6
35	S16-0800	8	Spring washer, M8



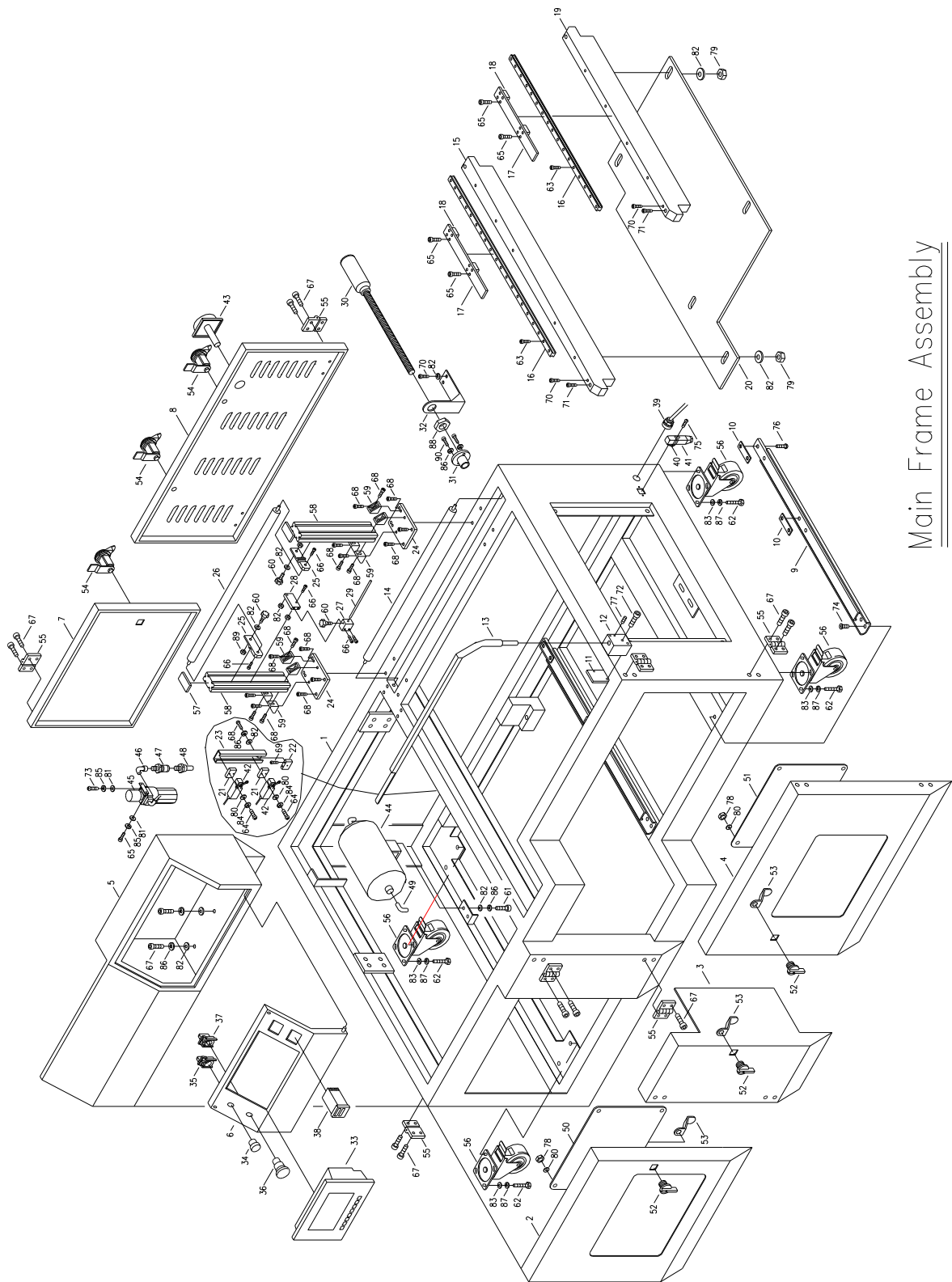
Scrap Unwind Unit Assembly

Pos.	Part #	Qty	Description
1	G10701	1	Washer (aluminum)
2	G10702	1	Scrap wheel outside
3	G10703	1	Wheel core
4	G10704	1	Scrap wheel inside
5	G10705	1	Turning disk
6	G10706	1	Activity arm
7	G10707	1	Scrap motor shaft
8	G10708	1	Scrap motor mounting bracket
9	G10709	1	Counter weight
10	G10710	1	Counter weight fix block
11	G10711	1	Guide roller (A)
12	G10712	1	Limit switch mounting bracket
13	G10713	1	Guide roller (B)
14	G10714	1	Connection rod
15	G10715	1	Cylinder mounting bracket
16	G10716	1	Rubber stopper
17	E84401	1	Proximity sensor, TDTEK PM12-04NS
18	E29001	1	Limit switch, TEND TZ7166
19	E60605	1	Scrap gear motor, 220V, 1/4Hp, 1:15
20	S25-1002	1	Plastic head screw, 58x3/8"x1"
21	S40-1012	1	Cylinder, MCMA-11-20-75
22	S40-2003	2	Flow valve, JSC0601A
23	S40-3001	1	Solenoid valve, MVSC-3004E1A24
24	S40-4001	1	Air connector, PL1003T
25	S40-4003	2	Air connector, PL0603
26	S40-5011	2	Noise absorption, PSL-03
27	S50-6804	2	Ball bearing, 6804ZZ
28	S50-6304	1	Ball bearing, 6304ZZ
29	S01-0825	4	Hexagon bolt, M8x25
30	S02-0530	2	Hex socket bolt, M5x30
31	S02-0535	2	Hex socket bolt, M5x35
32	S02-0816	4	Hex socket bolt, M8x16
33	S04-0610	4	Flat socket head screw, M6x10
34	S04-0640	1	Flat socket head screw, M6x40
35	S04-0820	1	Flat socket head screw, M8x20



Control Panel Assembly

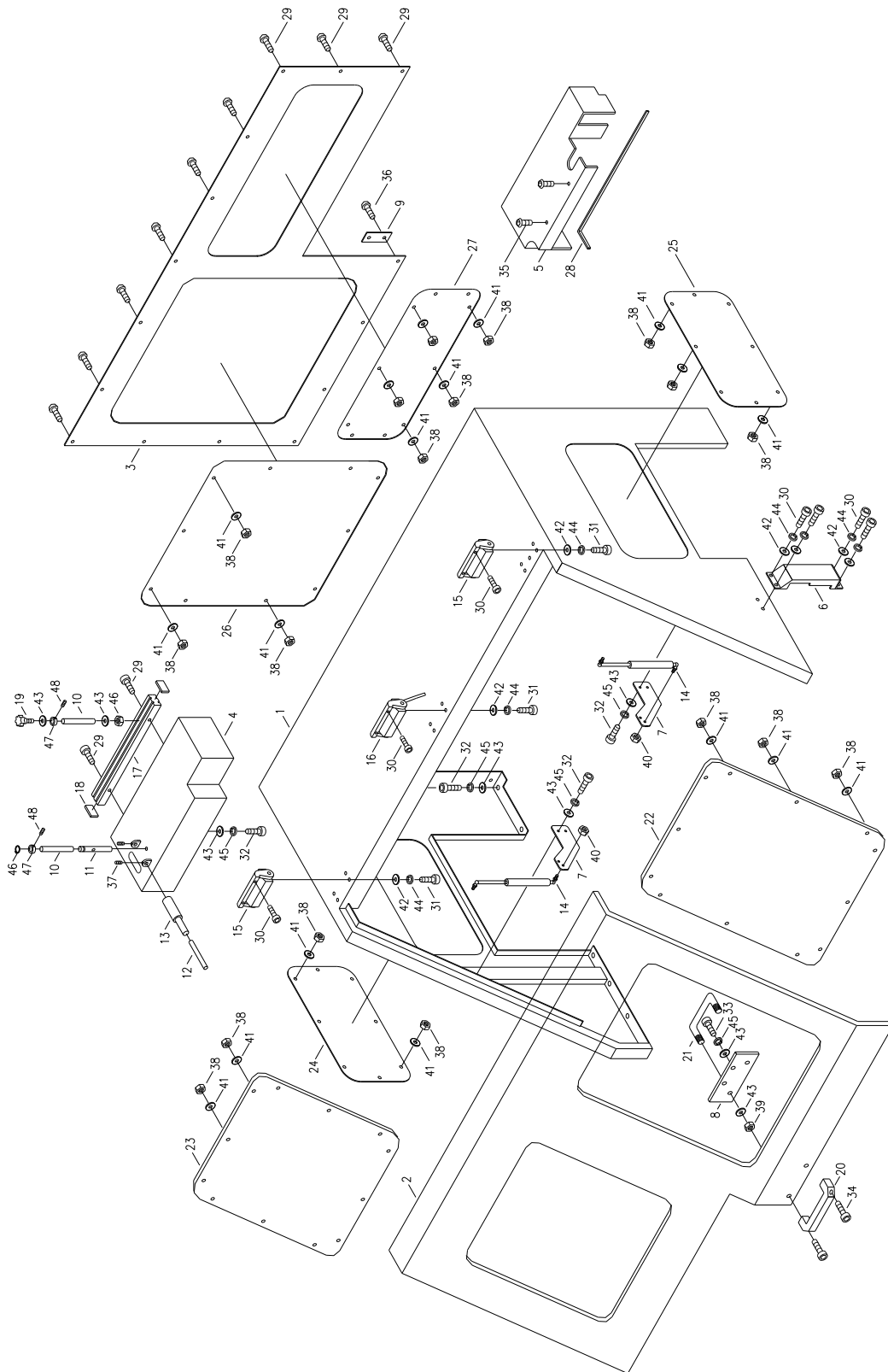
Pos.	Part #	Qty	Description
1	G10801	1	Control panel
2	G10802	1	Control panel base
3	E52201	1	Cooling fan, KAKV KA1238HA2SAT
4	E52211	2	Cooling fan safety net
5	E30601	6	Stopper, PHCENIX CONTACT CLIPFIX 35
6	E04700	1	Control PC board
7	E90310	1	Extension I/O unit, DELTA DVP-16SP11R
8	E90301	1	PLC unit, DELTA DVP-28SV11T
9	E90300	1	DC24V Power supply, DELTA DVP-PS02
10	E18201	1	Relay, SCHNEIDER RXM2AB2B7
11	E20101	1	Relay socket, SYE SYF-08A
12	E32701	9	Fuse box, DINKLE FDk4
13	E07701	1	Circuit breaker, SCHNEIDER 23865 2P-C16
14	E03001	1	AC24V transformer, DEKER TF-401
15	E67401-A7	1	Inverter A7, DELTA VFD004S21A
16	E67401-A6	1	Inverter A6, DELTA VFD004S21A
17	E67401-A5	1	Inverter A5, DELTA VFD004S21A
18	E67401-A4	1	Inverter A4, DELTA VFD004S21A
19	E67481	4	Braking resistor, LMEM MHL 80W/200ΩJ
20	E09100	2	Magnetic contactor, TECO CU-11 3A1a 24VAC
21	E31101	2	Connector, WAGO 2006-1201
22	E31102	6	Connector, WAGO 2002-1401
23	E32001	1	Ground plate
24	G10824	2	Aluminum rail
25	E42101	2	Solid State Relay, OMRON G3NA-225B
26	E65113	1	Capacitor, 20uf/350V
27	G10827	1	Plastic cable channel, 25x45
28	G10828	1	Plastic cable channel, 32x45
29	G10829	2	Plastic cable channel, 45x45
30	E24601	1	Power switch, MOELLER TO-2-1
31	S08-0510	8	Truss head machine screw, M5x10
32	S02-0408	4	Hex socket bolt, M4x8
33	S02-0616	3	Hex socket bolt, M6x16
34	S05-0408	44	Phillips pan head screw, M4x8
35	S12-0600	4	Hexagon nut, M6



Main Frame Assembly

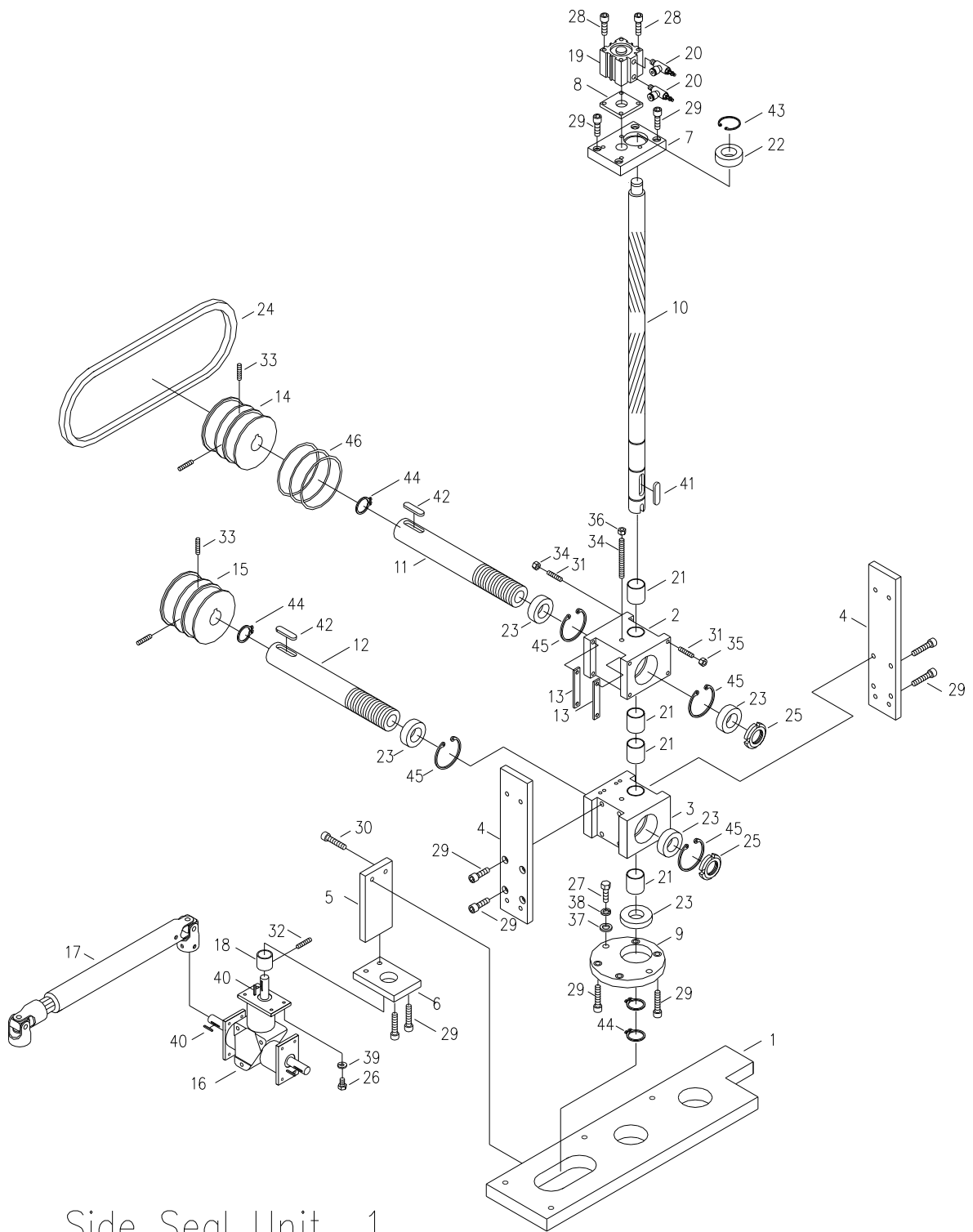
Pos.	Part #	Qty	Description
1	G10901	1	Main base frame
2	G10902	1	Scrap wheel door
3	G10903	1	Film rack left door
4	G10904	1	Film rack right door
5	G10905	1	Front control cabinet
6	G10906	1	HMI control panel
7	G10907	1	Back center seal door
8	G10908	1	Control panel door
9	G10909	4	Sliding rail
10	G10910	8	Spacer plate
11	G10911	1	Nut plate
12	G10912	1	Entrance guide holder.
13	G10913	1	Entrance guide
14	G10914	1	Roller (SUS304)
15	G10915	1	Sliding bearing support, long
16	G10916	2	Sliding bearing rail, BRH15RBx720L
17	G10917	2	Sliding bearing mounting plate
18	G10918	2	Sliding bearing, BRH15A
19	G10919	1	Sliding bearing support, short
20	G10920	1	Sliding bearing rail bottom cover
21	G10921	2	Limit switch mounting block
22	G10922	1	Limit switch bottom block
23	G10923	1	Limit switch adjust guide
24	G10924	2	Mounting plate
25	G10925	2	Roller support plate
26	G10926	1	Roller (SUS304)
27	G10927	1	Separation bar holder
28	G10928	1	Separation bar holder bracket
29	G10929	1	Separation rod
30	E60702	1	DC drive motor assembly (infeed conveyor)
31	G10931	1	Copper nut
32	G10932	1	DC drive motor mounting bracket
33	E90320	1	HMI, Delta S7111
34	E23301	1	Start switch push button, TE #088980
35	E23302	1	Start switch contactor, TE #089312

Pos.	Part #	Qty	Description
36	E23311	1	Emergency stop push button, TE #088874
37	E23312	1	Emergency stop contactor, TE #088940
38	E48303	2	Temperature controller, TAIE FY-400
39	E80221	1	Cable Clamp, M20BL-W
40	E82601	1	Connector socket, HAN 3A-AGW-QB
41	E82602	1	Connector plug, HAN 3A-GG-11
42	E29002	2	Limit switch, TEND TZ-9104
43	E24602	1	Power switch knob
44	S40-7011	1	Gas tank
45	S40-0001	1	Air regulator, MAFR401-10A
46	S40-4021	1	L-type air connector, P80
47	S40-7001	1	Switching valve, HSV-03A
48	S40-7002	1	Quick connector
49	S40-4001	3	Air connector, PL1003T
50	G10950	1	Plexiglass scrap door
51	G10951	1	Plexiglass film rack
52	S35-1001	3	Door lock knob
53	S35-1002	3	Door lock plate
54	S35-1003	3	Control panel lock
55	S35-2001	10	Door hinge
56	S34-1001	4	Caster with brake
57	S26-0012	2	Plastic cover
58	G10958	2	Aluminum square tube
59	S35-3001	8	Connection block
60	S25-300616	3	Plastic head screw, \varnothing 30xM6x16L
61	S01-0616	2	Hexagon bolt, M6x16
62	S01-0816	16	Hexagon bolt, M8x16
63	S02-0420	8	Hex socket bolt, M4x20
64	S02-0435	4	Hex socket bolt, M4x35
65	S02-0512	18	Hex socket bolt, M5x12
66	S02-0515	6	Hex socket bolt, M5x15
67	S02-0612	42	Hex socket bolt, M6x12
68	S02-0616	26	Hex socket bolt, M6x16
69	S02-0625	2	Hex socket bolt, M6x25
70	S02-0635	7	Hex socket bolt, M6x35



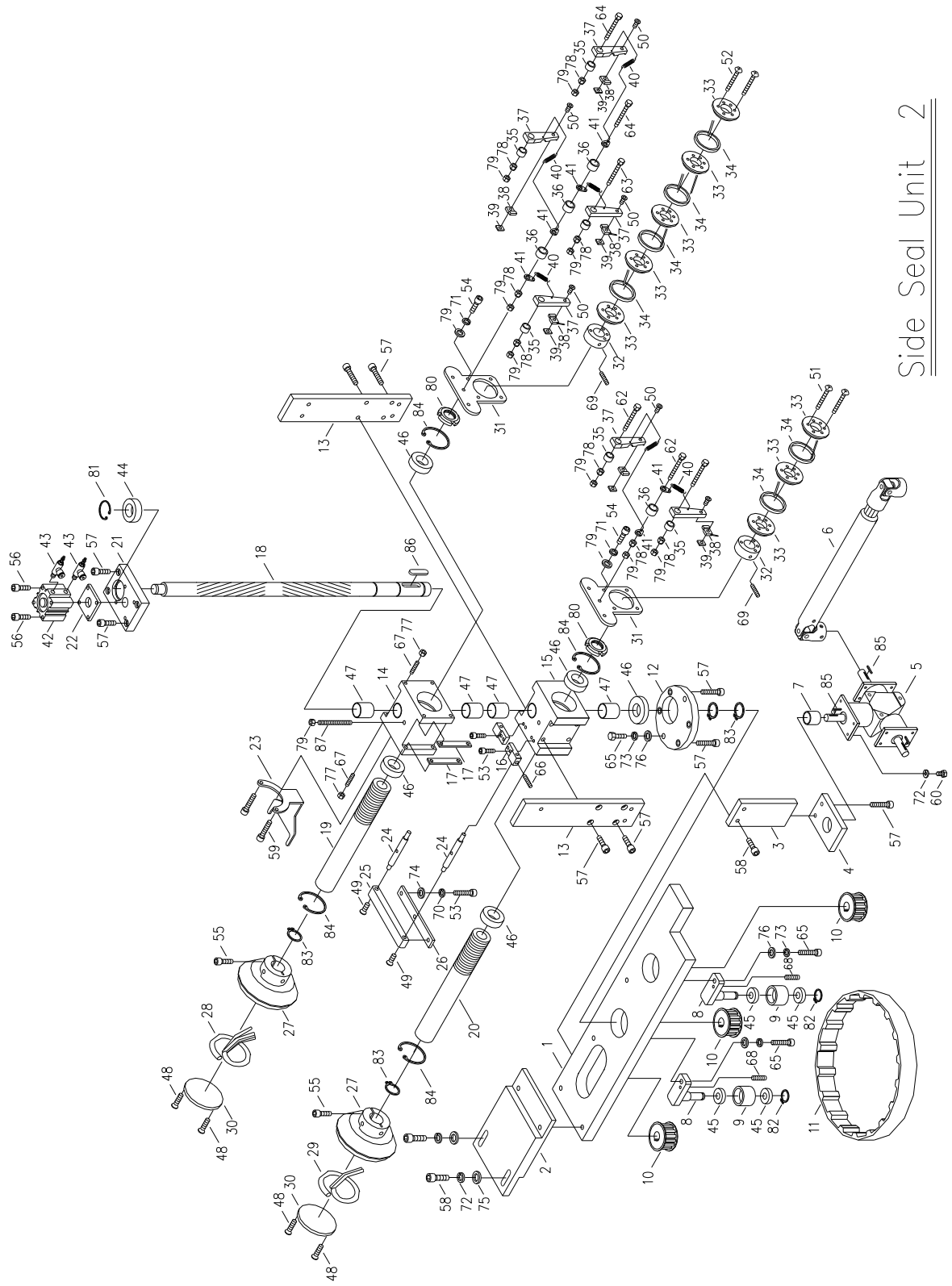
SAFETY SHIELD ASSEMBLY

Pos.	Part #	Qty	Description
1	G11001	1	Safety shield main frame
2	G11002	1	Front door
3	G11003	1	Back cover
4	G11004	1	Film wheel cover
5	G11005	1	Seal cylinder upper cover
6	G11006	1	Safety shield right side support
7	G11007	2	Front door cylinder bracket
8	G11008	1	Handle holding plate
9	G11009	1	Back cover holding plate
10	G11010	2	Guide roller
11	G11011	1	Guide roller shaft
12	G11012	1	Roller shaft
13	G11013	1	Plastic roller
14	G11014	2	Gas spring
15	E86110	2	Front door hinge, HC AA
16	E86111	1	Door safety switch, HC AA050F-2PN
17	G11017	1	Aluminum rail
18	S26-0011	2	Aluminum rail end cover
19	S25-300616	1	Plastic screw, \varnothing 30xM6x16L
20	G11020	1	Plastic handle
21	G11021	1	Steel handle
22	G11022	1	Front door right side plexiglass, 6Tx740x740
23	G11023	1	Front door left side plexiglass, 6Tx560x560
24	G11024	1	Discharge conveyor side plexiglass, 6Tx310x560
25	G11025	1	Infeed conveyor side plexiglass, 6Tx310x641
26	G11026	1	Back cover left side plexiglass, 6Tx560x620
27	G11027	1	Back cover right side plexiglass, 6Tx350x780
28	G11028	1	Edge protector
29	S02-0510	21	Hex socket bolt, M5x10
30	S02-0512	10	Hex socket bolt, M5x12
31	S02-0516	12	Hex socket bolt, M5x16
32	S02-0616	18	Hex socket bolt, M6x16
33	S02-0620	2	Hex socket bolt, M6x20
34	S02-0816	2	Hex socket bolt, M8x16
35	S03-0612	2	Socket head cap screw, M6x12



Side Seal Unit 1

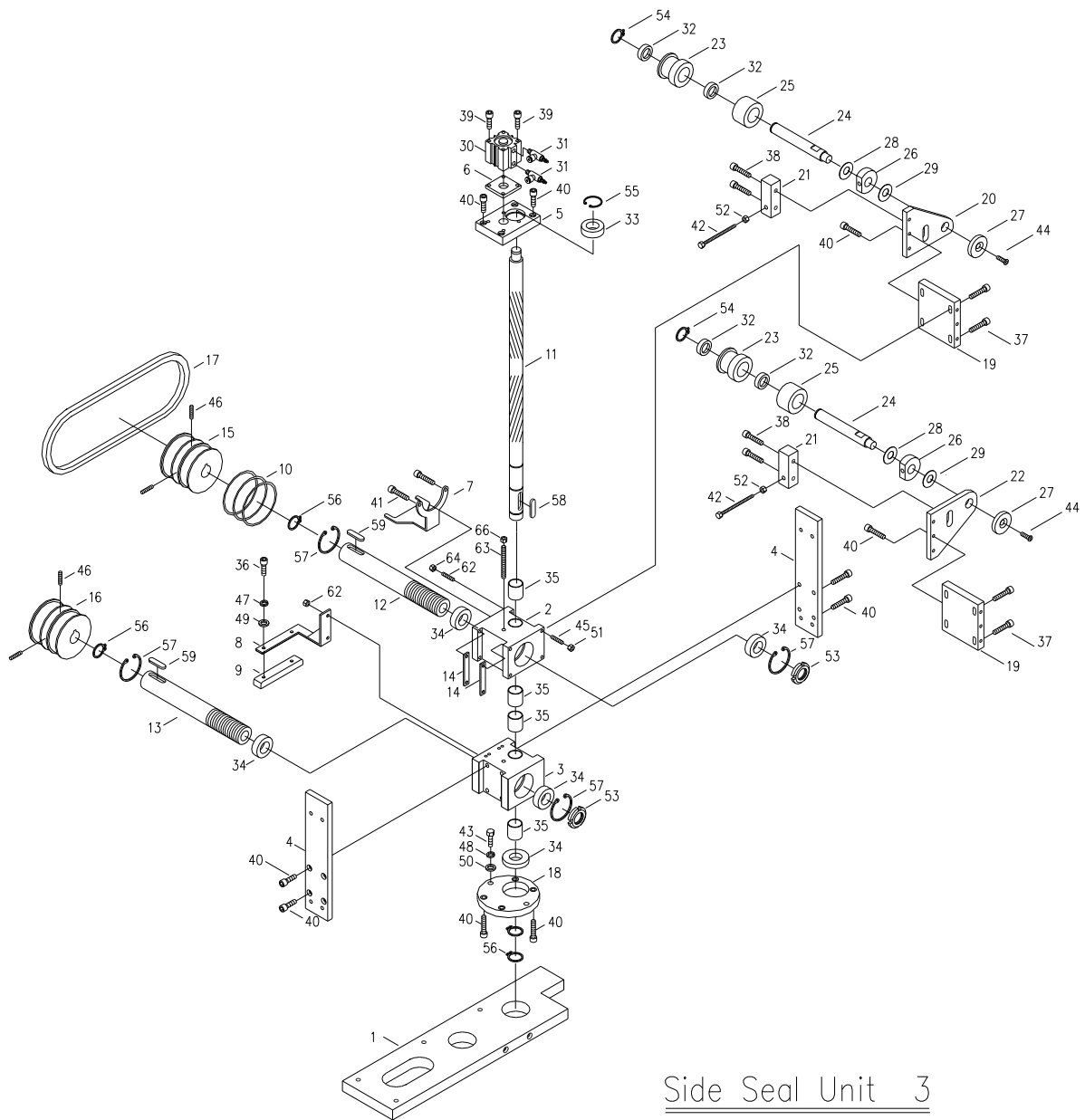
Pos.	Part #	Qty	Description
1	G11401	1	Film wheel mounting plate
2	G11402	1	90° Transmission block, upper
3	G11403	1	90° Transmission block, bottom
4	G11108	2	90° Transmission block fix bracket
5	G11404	1	Aluminum plate (A)
6	G11405	1	Aluminum plate (B)
7	G11116	1	Upper bearing housing
8	G11115	1	Cylinder spacer
9	G11408	1	Bottom bearing housing
10	G11409	1	90° Shifting screw
11	G11122	1	Upper drive screw
12	G11123	1	Bottom drive screw
13	G11113	4	Copper bush
14	G11413	1	Upper belt pulley
15	G11414	1	Bottom belt pulley
16	G10438	1	90 degrees shafter
17	G11416	1	Shafter driving shaft
18	G11417	2	Connection collar
19	S40-1011	1	Pneumatic cylinder, MCJT-C-12-32-10M
20	S40-2003	2	Flow valve, JSC0601A
21	S52-2015	4	Metal bushing, 2015
22	S50-6002	1	Ball bearing, 6002
23	S50-6004	5	Ball bearing, 6004
24	G11423	2	Driving belt, 5PJ787
25	S28-AN04	2	Disk lock nut, AN04
26	S01-0620	4	Hexagon bolt, M6x20
27	S01-0825	2	Hexagon bolt, M8x25
28	S02-0550	4	Hex socket bolt, M5x50
29	S02-0616	16	Hex socket bolt, M6x16
30	S02-0630	2	Hex socket bolt, M6x30
31	S09-0520	8	Hex socket screw, M5x20
32	S09-0606	4	Hex socket screw, M6x6
33	S09-0610	4	Hex socket screw, M6x10
34	S31-0670	1	Screw, M6x70L
35	S13-0500	8	Lock nut, M5
36	S12-0600	1	Hexagon nut, M6



Side Seal Unit 2

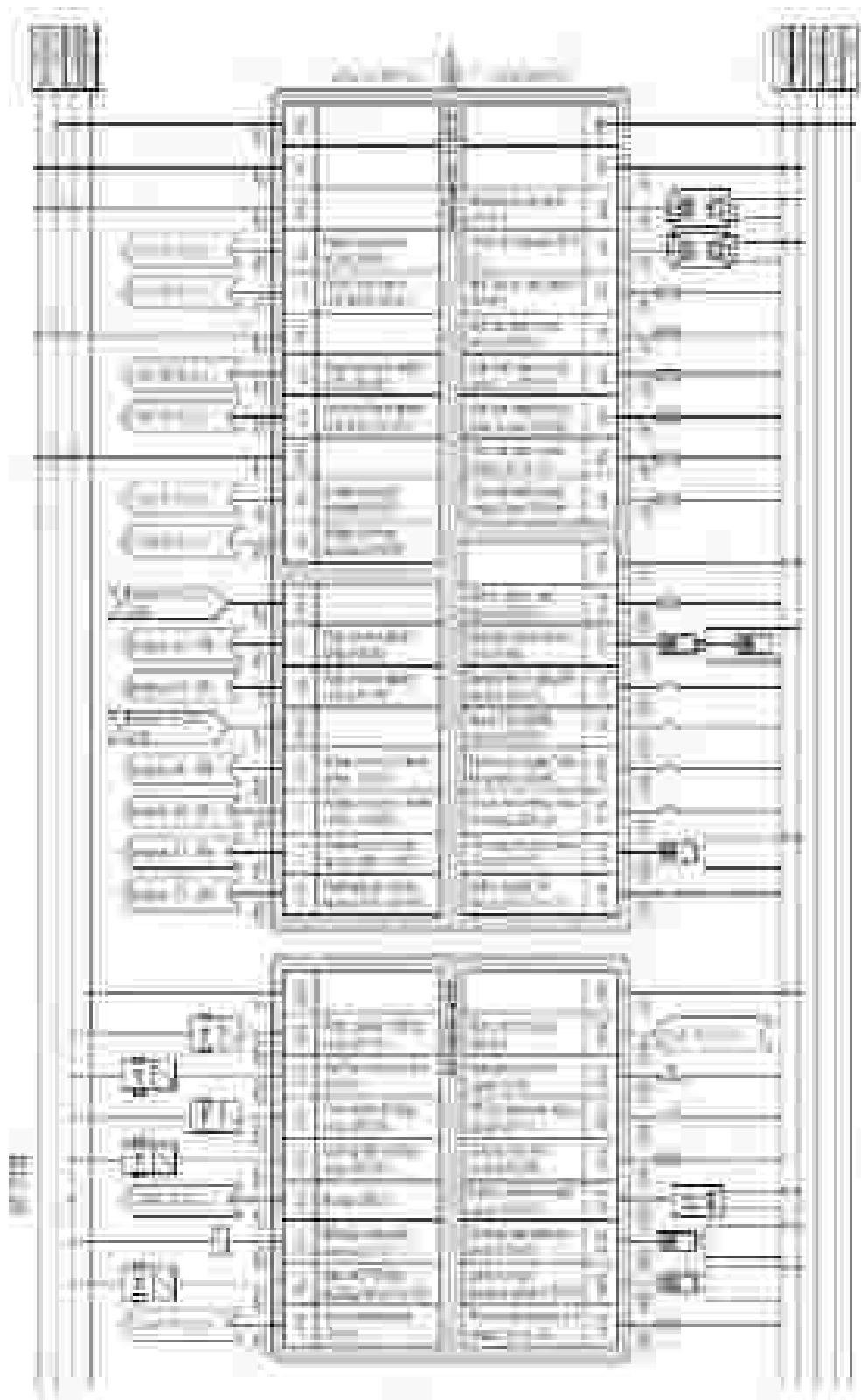
Pos.	Part #	Qty	Description
1	G11401	1	Film wheel mounting plate
2	G11502	1	Extension plate
3	G11405	1	Aluminum plate (A)
4	G11406	1	Aluminum plate (B)
5	G10438	1	90 degrees shafter
6	G11417	1	Shafter driving shaft
7	G11418	2	Connection collar
8	G11508	2	Belt tension roller bracket
9	G11509	2	Belt tension roller
10	G11510	3	Belt driving sprocket
11	G11511	1	Driving belt
12	G11409	1	Bottom bearing housing
13	G11108	2	90° Transmission block fix bracket
14	G11514	1	90° Transmission block, upper
15	G11515	1	90° Transmission block, bottom
16	G11516	2	Aluminum bracket
17	G11113	4	Copper bush
18	G11518	1	90° Shifting screw
19	G11519	1	Upper drive screw
20	G11520	1	Bottom drive screw
21	G11116	1	Upper bearing housing
22	G11115	1	Cylinder spacer
23	G11523	1	Film lifting bracket
24	G11524	2	Teflon bracket mounting shaft
25	G11525	1	Teflon plate
26	G11526	1	Teflon bracket
27	G11527	2	Side seal wheel
28	E68600	1	Upper side seal heater
29	E68601	1	Bottom side seal heater
30	G11530	2	Side seal heater cover
31	G11531	2	Commutator mounting bracket
32	G11532	2	Connecting collar
33	G11533	8	Insulation disk
34	G11534	6	Commutator
35	G11535	6	T type spacer
36	G11536	4	Spacer

Pos.	Part #	Qty	Description
37	G11537	6	Commutator arm
38	G11538	6	Carbon brush
39	G11539	6	Carbon brush holder
40	G11540	6	Carbon brush spring
41	G11541	6	Carbon brush spring holder
42	S40-1011	1	Pneumatic cylinder, MCJT-C-12-32-10M
43	S40-2003	2	Flow valve, JSC0601A
44	S50-6002	1	Ball bearing, 6002
45	S50-6003	4	Ball bearing, 6003
46	S50-6004	5	Ball bearing, 6004
47	S52-2015	4	Metal bushing, 2015
48	S07-0606	8	Flat head screw, M6x6
49	S07-0408	2	Flat head screw, M4x8
50	S04-0415	6	Flat socket head screw, M4x15
51	S05-0440	2	Phillips pan head screw, M4x40
52	S05-0450	2	Phillips pan head screw, M4x50
53	S02-0412	4	Hex socket bolt, M4x12
54	S02-0512	8	Hex socket bolt, M5x12
55	S02-0516	2	Hex socket bolt, M5x16
56	S02-0550	4	Hex socket bolt, M5x50
57	S02-0616	20	Hex socket bolt, M6x16
58	S02-0630	4	Hex socket bolt, M6x30
59	S01-0412	2	Hexagon bolt, M4x12
60	S01-0620	4	Hexagon bolt, M6x20
61	S01-0650	1	Hexagon bolt, M6x50
62	S01-0665	2	Hexagon bolt, M6x65
63	S01-0670	1	Hexagon bolt, M6x70
64	S01-0675	2	Hexagon bolt, M6x75
65	S01-0825	4	Hexagon bolt, M8x25
66	S09-0506	2	Hex socket screw, M5x6
67	S09-0520	8	Hex socket screw, M5x20
68	S09-0610	2	Hex socket screw, M6x10
69	S09-0810	4	Hex socket screw, M8x10
70	S16-0400	4	Spring washer, M4
71	S16-0500	8	Spring washer, M5
72	S16-0600	8	Spring washer, M6



Side Seal Unit 3

Pos.	Part #	Qty	Description
1	G11401	1	Film wheel mounting plate
2	G11402	1	90° Transmission block, upper
3	G11403	1	90° Transmission block, bottom
4	G11108	2	90° Transmission block fix bracket
5	G11116	1	Upper bearing housing
6	G11115	1	Cylinder spacer
7	G11523	1	Film lifting bracket
8	G11607	1	Teflon mounting bracket
9	G11608	1	Teflon plate
10	G11446	3	Round belt
11	G11518	1	90° Shifting screw
12	G11122	1	Upper drive screw
13	G11123	1	Bottom drive screw
14	G11113	4	Copper bush
15	G11414	1	Upper belt pulley
16	G11415	1	Bottom belt pulley
17	G11424	2	Driving belt, 5PJ787
18	G11409	1	Bottom bearing housing
19	G11618	2	Front roller aluminum plate
20	G11619	1	Upper roller aluminum plate
21	G11620	2	Bottom roller aluminum plate
22	G11621	1	Bottom roller aluminum plate
23	G11622	2	Front roller
24	G11623	2	Front roller shaft
25	G11624	2	Front roller plastic spacer
26	G11625	2	Front roller PE spacer
27	G11626	2	Front roller washer_A
28	G11627	2	Front roller washer_B
29	G11628	2	Front roller washer_C
30	S40-1011	1	Pneumatic cylinder, MCJT-C-12-32-10M
31	S40-2003	2	Flow valve, JSC0601A
32	S50-6901	4	Ball bearing, 6901
33	S50-6002	1	Ball bearing, 6002
34	S50-6004	5	Ball bearing, 6004
35	S52-2015	4	Metal bushing, 2015
36	S02-0412	2	Hex socket bolt, M4x12



Notes