

VERTEK 750/1150/1600

Installation & Maintenance Manual Rev.3.0







VERTEK 750



VERTEK 1600



VERTEK 1150



PREFACE

Thank you for purchasing from WeighPack Systems Inc. In order to use this machine correctly, it is strongly recommended that you read this manual carefully before installation.

This manual contains detailed descriptions of the structure, function, operation and maintenance of the machine. Please note that due to continuous improvements, the contents of this manual may be slightly different than the actual machine. If you have any questions or encounter any problems while using this machine and the answers cannot be found in this manual, please do not hesitate to contact our service department immediately. Ensuring that your WeighPack machine is performing correctly is our top priority and we are at your disposal should you require any further assistance.

Serial #:			
Model #:			

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SAFETY

IMPORTANT SAFETY INFORMATION

READ ALL INSTRUCTIONS BEFORE OPERATING

Upon receipt, unpack and inspect the unit for damages that may have occurred during shipment. WeighPack is not in any way responsible for any damages that may occur during transport. In the event your machines are damaged during shipping, it is your responsibility to make a claim with the shipping company in question.

Before operating, please read instructions carefully. Be familiar with the controls and proper use of the unit.

Do not operate the machine when tired, ill, or under the influence of alcohol, drugs or medication.

The instructions and data in this manual are vital to the proper installation and operation of this machine. In order to avoid delays due to faulty installation and operation of the machine, please ensure that these instructions are read by the individuals who will install, operate or maintain the machine.

The WARNING instructions issued in this manual are not meant to cover all possible conditions and situations that may occur. Please understand that caution and proper judgment are paramount when operating your machine, not all machines can be built to be entirely tamper proof. Failure to install, maintain and operate the machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage, which will void your warranty. Contact our service department about any problems or conditions you do not fully understand.



GENERAL SAFETY

The following section outlines the general safety information about operating your WeighPack machine.

INJURY PREVENTION

- ❖ No loose objects should be placed near the functioning machinery.
- All operators should be familiar with their own Labor Protection guidelines.
- Hands, arms, hair and clothing should not be placed near moving or heating parts of the machine.
- Do not turn the machine ON if any of the machine's components have been removed or modified.
- ❖ It is strongly recommended not to leave unattended objects near any of the machine's moving components, or on top of the machine.
- Do not perform maintenance or cleaning on machinery while it is in operation or powered.

FIRE PREVENTION

- Keep a fire extinguisher near the machine.
- Unplug the machine before maintaining or cleaning.
- ❖ All electrical components must be clean and in good condition.

Note:

Electrical fires can occur if any wires are scratched, corroded, color-faded, uninsulated, or have damaged ends. Wires should be changed immediately if presenting any of the above conditions.

Any exposed electrical components should never come into contact with the ground-connector or any other electrically conductive objects; such as tools.



ELECTRICAL PRECAUTIONS

- Ensure no liquids are near the machine to eliminate the possibility of spilling onto any electrical components, creating short-circuits.
- Should a liquid spill onto the machine, turn off the power immediately and once having cleaned the liquid, test all the electrical components to ensure they are functioning properly.
- To avoid short-circuiting, keep all wires and connections clean. Keep your body, hand-held tools, and any other electrically conductive objects away from exposed electrical components.
- Ensure the electrical cabinet is always closed, unless needed for maintenance.
- Always ensure that the ground wire is firmly connected with the ground before starting the machine.
- Use double grounding for added protection.
- After installation check all electrical connections and test all electrical circuits before starting the machine.

GROUNDING INSTRUCTIONS

Improper connection of the machine's grounding conductor can result in a risk of electrical shock. Check with a qualified electrician or serviceman if you are in doubt as to whether your machine outlets are properly grounded.

This machine must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electrical shock by providing a path of lesser resistance for electrical current. This machine comes with a grounding conductor for a four-prong grounding plug. The plug must be connected into an outlet that is properly installed and grounded in the accordance with all local codes and ordinances. Only a qualified electrician should install the power outlet.

If your electrical supply does not meet the above specifications, or if you are unsure your building has an effective ground, have a qualified electrician or your local electrical utility company perform an inspection.



WARNING LABELS

Warning labels serve to advise potential danger. Warning labels should be kept clearly visible at all times, and not to be ignored or removed from the machine. Removal of warning labels from the machine could result in an increase in machine related accidents. Should you require a replacement label please contact WeighPack immediately.

Symbol



Description

PHYSICAL HARM:

Take caution when in the presence of moving parts as they may cut, crush, dismember or otherwise injure body parts in close proximity.

Loose clothing or jewelry around moving components may get caught and pull the user into the machine.



BURN HAZARD:

Many surfaces of the machine will become extremely hot during the course of its operation. Please avoid contacting the indicated hot surfaces to avoid burns.

Surfaces will remain hot for an extended period of time after powering down the machine. Ensure the machine is completely cool before contact.



HIGH VOLTAGE:

While powered, the machine's electrical systems possess sufficient voltage to electrocute any who misuse it.

Do not attempt to tamper with the electrical systems of the machine. Should you discover damaged wiring or circuits on the machine, please power it down and contact WeighPack immediately.



MACHINE SPECIFICATIONS

PARAMETER	VERTEK 750	VERTEK 1150	VERTEK 1600
POWER SUPPLY	230V AC	230V AC	230V AC
	60HZ	60HZ	60HZ
	30AMPS	30AMPS	30AMPS
	SINGLE PHASE	DOUBLE PHASE	DOUBLE PHASE
SPEED*	UP TO 50 BAGS PER MINUTE	UP TO 40 BAGS PER MINUTE	UP TO 25 BAGS PER MINUTE
BAG WIDTH	3IN 75MM TO 7.5IN 190MM	3.5IN 90MM TO 11.5IN 290MM	11IN 280MM TO 16IN 400MM
BAG LENGTH** (JAW TO CONVEYOR)	Low Profile Base: 2IN 50MM TO 12IN 304MM	Low Profile Base: 2IN 50MM TO 14IN 355MM	STANDARD PROFILE BASE: 2IN 50MM TO
	STANDARD PROFILE BASE: 2IN 50MM TO 18IN 457MM	STANDARD PROFILE BASE: 2IN 50MM TO 20IN 508MM	22IN 508MM
AIR PRESSURE	80psi 5.5bar	80PSI 5.5BAR	80psi 5.5bar
AIR CONSUMPTION	9сгм 0.25м ³ /міN	9cfм 0.25м ³ /міN	9сғм 0.25м ³ /міN
WEIGHT	720LBS 327KG	950lbs 430kg	1200LBS 544KG
DIMENSIONS	LENGTH: 55IN 1375MM	LENGTH: 57IN 1450MM	LENGTH: 82IN 2100MM
	WIDTH: 43 IN 1100MM	WIDTH: 45IN 1150MM	WIDTH: 58IN 1500MM
	HEIGHT: 55IN 1375MM	HEIGHT: 77IN 1950мм	HEIGHT: 85IN 2150мм

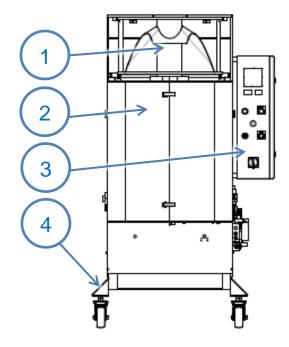
^{*}SPEED MAY VARY DEPENDING ON BAG MATERIAL AND LENGTH

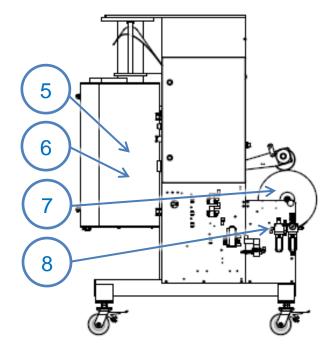
^{**}BAG LENGTH MAY VARY DEPENDING ON APPLICATION.



MACHINE LAYOUT

ITEM	DESCRIPTION
1	FORMER
2	Doors
3	CONTROL BOX
4	FRAME
5	VERTICAL SEALING ASSEMBLY
6	PULL BELTS
7	FILM ROLL
8	FILTER REGULATOR

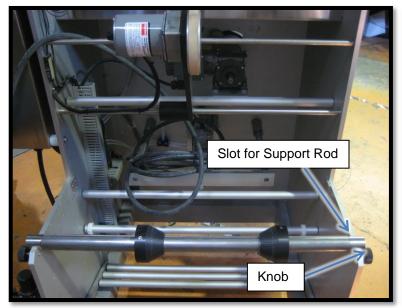


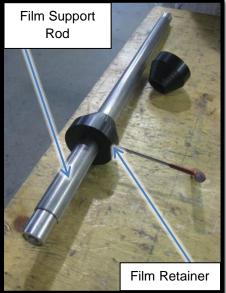




INSTALLATION

FILM INSTALLATION





Film Support Bar

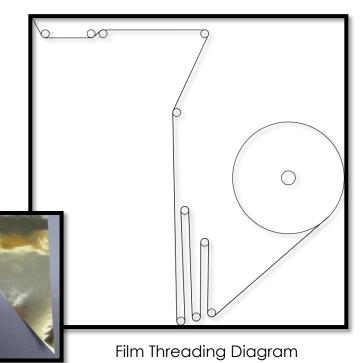
To install a new film roll onto the Vertek Bagger, you must first install the roll of film onto the Film Support Rod. Center the roll and then lock it in place using the Film Retainers located on both ends of the Film Support Rod. Place the Film Support Rod with the roll of film on its designated slot. Secure the Film Support Rod in place using the knobs on either end of the rod.



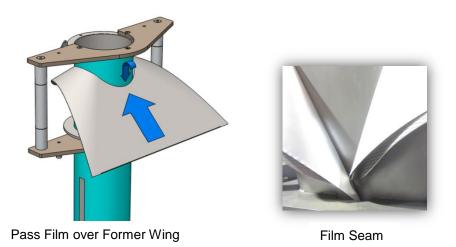
FILM THREADING

It is recommended that the tip of the film be cut into an inverted "V" shape before threading, so that it may better slip over the Former Wing. The Film Threading Diagram demonstrates the proper roller sequence the film will follow through the rollers. Thread the film through Carriage as shown in Film Threading Diagram.

Ensure the film is centered with the former; failing to do so may affect Vertical Seal quality. Improper Film Threading or Splicing may lead to crumpled or distorted film.



FILM WITH "V" CUT

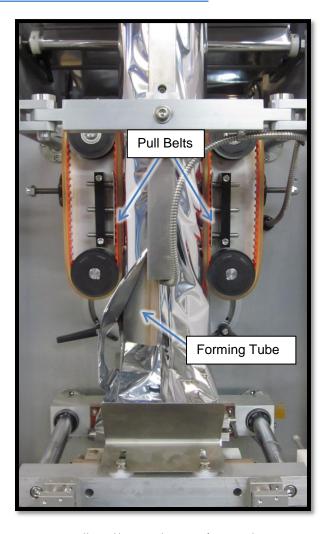


Film must next be passed over the Former's Wing, and down the Forming Tube towards the Pull Belts. Improper passing of film over the Former Wing may result in distortion in the bag fin created.

- 1. Pull film down to end of Former and past the Pull Belts.
- 2. Pass film over Former Wing.
- 3. The film's seam must be properly aligned, as seen in image "Film Seam."



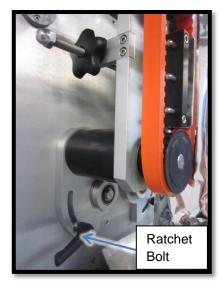
PULL BELT ALIGNMENT AND ADJUSTMENTS



Pull Belts and Forming Tube

The circumference of the Forming Tube determines the bag width. The Pull Belts are in contact with the two sides of the forming tube and advance the film as they turn. As the film advances down the Forming Tube, the encoder measures how much film has jogged to determine the bag length. Once the encoder registers the correct length, the Pull Belts stop jogging film and the Horizontal Jaws are activated to seal the bag.







Pull Belt Assembly

PULL BELT ASSEMBLY ADJUSTMENT

The Pull Belt Adjustment Assemblies adjust the amount the Pull Belts contact the sides of Forming Tube. To make adjustments, loosen the Ratchet Bolt and push the Pull Belt against the Forming Tube and then retighten the Ratchet Bolt; this adjusts how much contact the bottom of the Pull Belt makes with the Forming Tube.

To allow the top of the Pull Belt to contact the Forming Tube, simply tighten the Alignment Adjustment Knob, see above. When adjusting the Pull Belts, the top portion of the belt should be left slightly looser than the bottom portion. This ensures that the belts are pulling the film rather than pushing the film down the Forming Tube. Having the top portion too tight will cause the film to wrinkle along the Forming Tube.



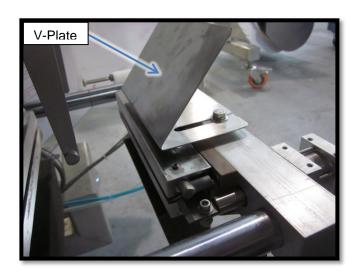
HORIZONTAL JAWS

V-PLATES

The V-Plates serve to assist in supporting the bag as it fills with product, only if the bagger is performing sealing above the jaws.

The V-Plates will prevent the unsealed bag from sitting on the Horizontal Jaws prior to sealing.

- ➤ The V-Plates should be spaced ¼" apart, and centered with the Horizontal Jaws.
- Loosen knobs.
- Adjust forward or back to achieve desired result.





BAG DEFLATORS

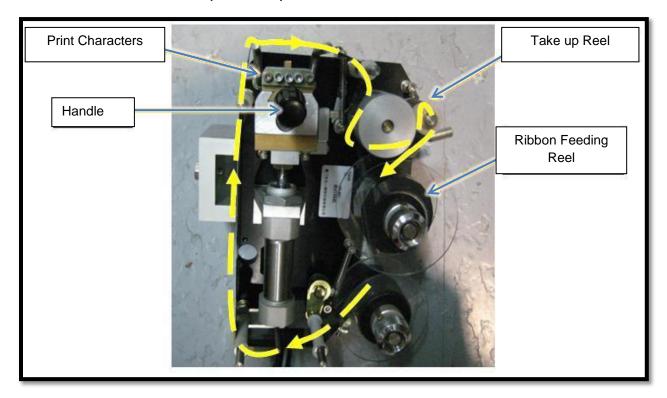
The Bag Deflators are located under the Horizontal Jaws and serve to help evacuate air from a bag prior to sealing.

Minimizing the amount of air leftover inside finished bags helps prolong the shelf life of packaged goods. In addition it serves to save space when packing large quantities of bags.

- 1. Loosen knobs.
- 2. Adjust forward or back to achieve desired result.



PRINTER INSTALLATION (OPTION)



Printer

PRINTER RIBBON INSTALLATION

When replacing the printer ribbon, remove the old reel and replace it with a new reel. Feed the ribbon through the printer as indicated above.

CHANGING THE DATE

To change the date on the printer the character holder must be removed by slightly pushing its handle in, rotate it 90° to 180° and pull the handle out; use caution as the character holder may be extremely hot. Change the characters as needed, align all characters within the holder and reinstall the holder by pushing the handle back in rotating it 90° to 180° and releasing it to lock it back in position. The characters should be handled with care as they are very fragile.

PRINTER POSITIONING

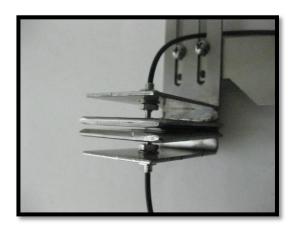
Turn the printer's side handle wheel to place the printer horizontally and move the print positioning film roller forward or backward to adjust the vertical position of the printer.



CALIBRATING THE EYE MARK SENSOR

The Eye Mark Sensor is a photo sensor that is used to detect the film's eye mark. Different films have different contrasts of eye marks and background, which may require a more specialized sensor. The following procedure explains how to adjust the Eye Mark Sensor to your film:

- Ensure that the film passes through the middle slot on the Eye Mark Sensor Bracket, see below.
- On the Amplifier select the eye mark color as Light or Dark depending on your film's eye mark color.
- 3. Switch the Amplifier mode from Run to Teach and place the film's eye mark the two Eye Mark Sensors, see below.
- 4. Press and hold the teach button on the Amplifier until it beeps, this indicates that the contrast of the eye mark has been taught to the Sensor.
- 5. Move the film's eye mark away from the Sensors, press and hold the Amplifier's teach button again until it beeps.
- 6. To finalize the calibration, switch the Amplifier mode button back to run; the Eye Mark Sensor is now ready to use.





Eye Mark Sensor Bracket and Amplifier

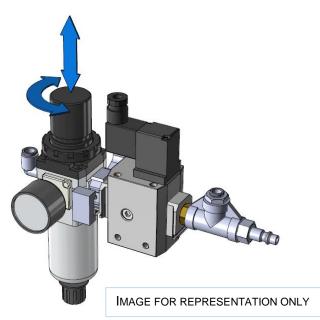


INSTALLATION OF ELECTRONICS

- Only a qualified electrician should make electrical connections to your plant's electrical circuit. It is important to check if the ground wire is firmly connected to ground and whether its resistance meets your requirements.
- Check the voltage and phase of the incoming line of the machine after supplying the power. Close each line and press the Start button on the control panel to supply power to the interface and the P.L.C. If there are abnormal noises, stop the machine and turn off the power.
- Do not power the machine again before determining what is causing the noise and resolving the problem.
- Static electricity can cause problems with electrical equipment and with operation, ensure your equipment is properly grounded during installation.
- ❖ Double ground the machine and test its ground resistance, if resistance is less than 50HM then it is acceptable. Any auxiliary equipment should be grounded as well.
- ❖ If static is present in bags, the installation of static eliminator may be required, please contact WeighPack if you require additional information.

INSTALLATION OF AIR SUPPLY

The Filter Regulator is found on the right hand side of the Vertek. The Vertek operates at 80PSI (5.5BAR) and has an air consumption of 9CFM (0.25M³/MIN.) It is important to ensure that your air supply can meet these specifications. Before connecting to an air supply and pressurizing the machine, ensure the Lubricator is filled halfway with Pneumatic Food Grade Oil.



To Adjust Air Pressure

- 1. Pull the knob to release it and adjust the pressure.
- 2. If the knob is rotated clockwise, the inlet pressure will increase, if rotated counter clockwise it will decrease.
- 3. Press down on the knob to lock it in place again once the pressure changes have been completed.



CONTROLS

PANEL LAYOUT

ITEM	DESCRIPTION
1	H.M.I. TOUCH SCREEN
2	EMERGENCY STOP BUTTON
3	MASTER CONTROL RELAY
4	FILM UNWINDING SPEED
5	Power Switch

H.M.I. CONTROLS

Please refer to the "VERTEK H.M.I. MANUAL" for details regarding the use of the H.M.I. software.

ALARMS

An alarm warning will display on the H.M.I. touch screen if there is a malfunction with the machine, such as a jam. The machine must be inspected and the alarm reset on the H.M.I. touch screen before you can continue running the bagger. The alarm must be manually reset each time, in this way alarm cannot be ignored.

EMERGENCY STOP

Pressing the E-stop will cut all power and air supply to the outputs (knife, sealers, motors... etc.) The machine's systems will become completely unpowered save for the H.M.I.

In the event that the Emergency Stop button is used to halt the system, it must be reset again. Pull out the Emergency Stop button, press the green M.C.R. (Master Control Relay) / Reset button. The Emergency Stop button is now ready to be used again.

When the bagger is operating normally, use the START/STOP buttons on the H.M.I. Touch Screen to control the bagging process. The user may also need to halt the functions of any interfacing machinery feeding the Bagger in the event of an emergency.

ELECTRICAL SCHEMATICS

For Detailed Electrical Schematics, please see attached appendix.





MACHINE OPERATION

The following basic operations should be done whenever the Vertek is started.

- 1. Power the Vertek by turning the MAIN power switch to the ON position. It will take a few seconds for the program to boot and be displayed on the HMI Touch Screen.
- 2. Turn on the Touch Screen by pressing Start.
- 3. Connect your air supply to the Vertek's air inlet, see "Installation of Air Supply" for details.
- 4. Allow 5-15 minutes for the Horizontal and Vertical Heating Elements to reach their setpoints.
- 5. If you have already set all of the Vertek's H.M.I. settings, proceed to the Automatic Menu and begin bagging.
- 6. Should an emergency arise in which you need to quickly turn the machine off, use the Emergency Stop button. Pressing the E-stop will stop the machine, reset the machine sequence, and cut all power and air supply to the outputs (knife, sealers, motors...etc.).



MAINTENANCE

During operation the machine can accumulate a build-up of particles and debris in its various components. Foreign debris may contaminate the machine and even the product being packaged, it may also impact the functionality of the machine over time. It is recommended to thoroughly clean and sanitize the machine after each operation cycle has ended.

Please keep in mind the following when cleaning your machine:

- Certain machines will be specified as being able to be washed down with water, unless otherwise noted the exteriors and interiors of machines are not to be exposed to water.
- Always use clean materials when wiping machines in order to avoid cross contamination.
- Remaining residue on the stainless steel from packaging products can cause corrosion due to any salt content. Please keep the machine's surfaces as dry and clean as possible between each use. Unlike other materials, it is not possible to "wear out" stainless steel by excessive cleaning.
- ❖ Be sure to wipe stainless steel in the direction of its grain finish lines for the best cleaning results. The metal's grain is readily visible to the naked eye.
- ❖ Do not use scouring pads/mesh cloths or metal tools such as scrapers or steel wool, as this can damage and contaminate the stainless steel surface of the machine and cause rust.
- Cleaners with synthetic ingredients, acids, chlorine, bleach and other caustic substances can lead to surface rust and discoloration, and eventual failure of the stainless steel. Halogen salts such as fluorine, chlorine, bromine, iodine and astatine are highly corrosive.

Failure to comply with the above criteria may result in voiding your warranty.

STORAGE

When storing the machine for a long period of time, disconnect the air and power and clean the machine thoroughly. Before running, the machine must be tested and adjusted. All the electrical components and their connections must be thoroughly checked before powering on.

Do not store the machine in a corrosive environment.



CLEANING PROCEDURE

- 1. START: Always turn off machine. Switch the Main Power Switch on the Control Box to off, and unplug the machine prior to cleaning. Ensure that all components are cool and not hot.
- CONTACT PARTS: The only parts of the VerTek that come in contact with food are the bag
 forming assembly and the transitional funnel between the scale and bagger. Both of these parts
 are designed to be tool-less removable. Once removed from the machine they can be low
 pressure cleaned.
- 3. ELECTRICAL ENCLOSURE: The NEMA-4 control panel is not a food contact area, the use of direct low-pressure washing is prohibited as it is not required and can be easily cleaned by wiping down the enclosure with a damp cloth. We suggest using compressed air to dislodge debris from components prior to clean the electrical panel.
- 4. INNNER WORKINGS OF BAGGER: Open the large lexan doors in order access the inside of this machine and use a damp cloth. The inside of this machine is not designed to be washed down with a low or high pressure water hose; do not expose the machine to any quantity of water (such as pouring water over the machine.) as vertical form & seal machines should never be washed this way. Clean all metal surfaces thoroughly to remove any contaminants.
- 5. SEALING JAWS: Clean Horizontal Jaw's knife and remove any plastic residue. Note that the sealing knife is mild steel, we do offer stainless steel knives though their life spam has been found to be considerably shorter as it is a less durable metal. Clean the Teflon coated seal jaws with a damp cloth: use caution as these surfaces may be extremely hot. Note: DO NOT brush the Teflon coated jaws as it may damage the jaws. If you are not sure of your bagger's jaw model, please contact our service department.
- 6. FILM REGISTRATION SENSORS: Use care when cleaning the sensors, and avoid using cleaning materials that could damage its viewing surface. Wipe down all sensors with a damp, soft cloth and dry them immediately to prevent water spots from forming. Use soft cleaning materials and non-corrosive cleaning products.
- 7. USE OF CLEANING SOLUTIONS: It is important to always be aware of the effect of your cleaning products on stainless steel and aluminum components. Cleaners with excessive chlorine can damage the outer layer of stainless steel and corrode it thus allowing it to rust. Please provide WeighPack with the exact cleaning agents you would like to use for consultation. Always ensure that during the cleaning process that your staff wipes off any remaining cleaning solution with a clean, damp cloth then dry all components with a clean, dry cloth. No water spots should remain on the machine. Leftover cleaning solution can cause damage to the stainless steel.
- 8. WEINVIEW TOUCH SCREEN: Is IP-66 rated.
- 9. HOTSTAMP PRINTER: This open and exposed hotstamp printer head cannot be wet and should be removed during cleaning process or covered.
- 10. RECOMONDATIONS: Though the VerTek is designed to withstand splashing within reason, during the cleaning process of the filling machine above the VerTek bagger, simply roll the bagger out of the way. If this is not possible, ensure the VerTek is covered with an industrial leak proof cover. The bagging machine only has two areas that are deemed food contact areas, hence the risk of putting this machine in direct contact of water will decrease the longevity of the machine over time.



PREVENTATIVE MAINTENANCE CHECKLIST

AFTER RUN

- 1. Visual inspection of Pneumatics, check for air leaks.
- 2. Visual inspection of Carriage, check for signs of damage to Rollers.
- 3. Check that Film Roll moves freely.
- 4. Visual inspection of Printer, check printer ribbon. Replace if needed.
- 5. Visual inspection of Gearbox, check gearbox for oil leaks.
- 6. Clean Jaws, check for chipping or damage to jaw face and plastic residue.
- 7. Wipe Knife, check that knife is free of plastic residue and undamaged after cleaning.*
- 8. Clean Teflon Tape, ensure that tape is not worn down and check for heat damage. Tape should be smooth, not discolored and scratch free.*
- 9. Examine Pull Belts for wear or damage, worn out Pull Belts appear either glazed over or hazy.*

GENERAL

Maintenance depends heavily on the machine's operating conditions. Environmental conditions may mean more frequent maintenance is required. All damaged components must be replaced; failure to do so will affect the machine's performance and may result in further damage.

- 1. Inspect and test safety switches and emergency stop button weekly.
- 2. Inspect Film Roll Assembly for smooth operation at the end of every week.
- 3. Lubricate Bearings monthly.
- 4. Tighten all nuts and bolts on all moving parts of the machine each month.
- 5. Clean dust from electric panel with compressed air and tighten screws on electrical terminals each month.
- 6. Visually inspect Foam Tape under Teflon Tape on Former, insure foam is not damaged each month.

STORAGE

When storing the machine for a long period of time, disconnect the air and power and clean the machine thoroughly. Before running, the machine must be tested and adjusted. All the electrical components and their connections must be thoroughly checked before powering on.

Do not store the machine in a corrosive environment.

^{*}These components must be replaced regularly as they wear out. If a component fails visual inspection it should be replaced.



LIABILITY DISCLAIMER

All statements, technical information and recommendations contained in this manual or any other information supplied by WeighPack in connection with the use, features and qualifications of the WeighPack machine are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using the WeighPack machine you should determine its suitability for your intended use based on your knowledge and the characteristics of materials you intend to use it. The Buyer bears all risk in connection with the use of the WeighPack machine.

Since the use of this manual and the conditions or methods of installation, operation, use and maintenance of the WeighPack machine is beyond the control of WeighPack, WeighPack does not assume responsibility and expressly disclaims liability for loss, damage or expense, whether direct, indirect, consequential or incidental, arising out of or anyway connected with such installation, operation, use, or maintenance. Damage caused by neglect, misuse or failure to comply with this manual will invalidate the warranty of the WeighPack equipment.

