

Pregis Sharp™ MaxPro Bagging Machine

Operator Manual

Model 1174-02 – Rev_3 Original Instructions In English



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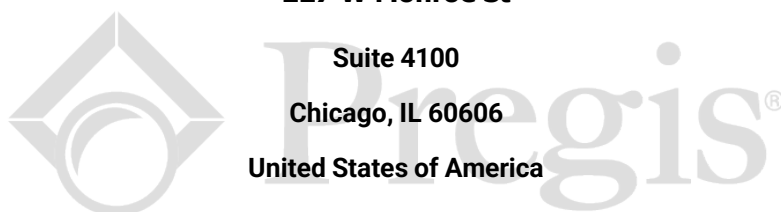
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ACC – Services Contact

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Pregis Sharp™ MaxPro Bagging Machine– Model 1174-02

For Manual/Service Contact visit

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Table of Contents

1. Prefix.....	8
2. Introduction	9
1.1 GENERAL INFORMATION	9
1.2 Safety Rules & Procedures	10
1.3 Equipment Safety Features	11
1.4 Specifications	13
1.5 Machine Dimensions	14
1.6 Poly Lite® Mailers and Bags.....	17
3. Controls	18
2.1 Security	18
2.2 Screen Navigation	19
4. Setup-Up & Operation.....	44
3.1 Machine Placement.....	44
3.2 Machine Adjustments.....	46
3.3 Loading Bag Film	48
3.4 Loading Ribbon	49
3.5 Operation.....	50
3.6 Cleaning	51
Cleaning / Maintenance Intervals.....	52
Cleaning	53
5. Fault & Alert Management.....	57
4.1 Bigger Faults	57
4.2 Bagger / Printer Warnings.....	59
4.3 Printer Faults.....	60
4.4 Printer Troubleshooting.....	61
6. Appendix	63

Prefix

The MaxPro Bagger, redesigned from the ground up for increased productivity and easier operation. The MaxPro Bagger is an effective solution for manually bagging product, dramatically reducing packaging costs and improving package quality. The MaxPro Bagger platform features an integrated ZT610 Zebra pivoting printhead.

Print Method	Thermal Transfer, directly onto surface of bag
Print Speeds	14 ips at 203 dpi 12 ips at 300 dpi
Print Resolution	203, 300 dpi
Print Width (max.)	4.09" (104 mm)

Your MaxPro Bagger is the result of extensive research and field testing with the following features:

Advanced diagnostics monitor individual machine components, notifying technicians of any potential problems and allowing replacement parts to be ordered before a failure occurs.

Networkable HMI responds like a smartphone: faster and more intuitive, with easy to understand icons.

Pass-through size now adjustable via the HMI, with not tools required.

Simplified bag threading system allows even novice operators to load new bags easily.

MaxPro Bagger accommodates 18" wide bags with an 8" pass-through depth.

Save job settings and label designs in HMI for easy access.

Incorporating Zebra thermal printers permits direct printing onto the package for bar codes, graphics, and alphanumeric fonts.

Movable printing head sets to precise positions, eliminating queuing and reducing material cost and scrap.

Decrease thermal ribbon usage as much as 90% with reduced spacing between impressions, printing with alternative registrations, and adjusting impression placement to maximize ribbon usage.

HMI, printer, and PLC can be networked, so they can be accessed at any time from almost anywhere.

Use remote label printing, production reporting, and SCADA (supervisory control and data acquisition) control.

New design utilizes fewer components, decreasing downtime and increasing ease of maintenance.

Improved error reporting pinpoints problems for hassle free troubleshooting.

The color touchscreen display provides troubleshooting guidance with exploded view drawings, manufacturer and part numbers, and .html help files with hyper links to explain any term.

Off-the-shelf, nonproprietary parts can be purchased at most MRO stores.

The materials used were selected for maximum durability and optimum performance. Every unit is thoroughly inspected and tested prior to shipment.

1. Introduction

1.1 GENERAL INFORMATION

ABOUT THIS MANUAL

This manual has been prepared for your use in operating model 1174-02 of the MaxPro Bagger. Images and instructions may differ slightly for older models, but basic function is the same. Included in the manual are helpful facts on operating and basic troubleshooting information.

It is important that you familiarize yourself with the product as much as possible before operating or troubleshooting.

Make sure you read through the EQUIPMENT SAFETY FEATURES and INTRODUCTION sections of this manual before operating this machine.

Upon receipt, unpack and inspect the unit for damages that may have occurred during shipment. Pregis is not in any way responsible for any damages that occur during transport. If you receive damaged equipment, it is your responsibility to make a claim with the transporter.

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 equipment. In order to avoid delays due to faulty installation and operation of the machine, please see that these instructions are read by the persons who will install or operate or maintain the machine.

The WARNING instructions issued on this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors that cannot be built into all machines. These factors must be supplied by the persons installing, maintaining, or operating the machine. Failure to install, maintain, and/or operate the equipment according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage. Contact Pregis about any problems or conditions you do not fully understand.

DEFINITION OF TERMS

Throughout this manual, you will find the following safety notices with this accompanying symbol. 

This symbol signifies important safety issues regarding the operation and maintenance of the MaxPro Bagger.

	CAUTION
GENERAL CAUTION: Indicates information important to the proper operation of the equipment, failure to observe may result in damage to the equipment and minor bodily injury.	

The machine requires regular, periodic maintenance to ensure reliable service. No maintenance should be

	WARNING
GENERAL WARNING: Indicates information important to the proper operation of the equipment. Failure to observe warning may result in damage to the equipment and severe bodily injury or death.	

performed unless the safety precautions for maintenance are thoroughly understood.

1.2 Safety Rules & Procedures

Follow all instructions in this manual for safe operation.

Follow all company and industry standard safety policies regarding this kind of machinery that may exceed those listed in this manual.

Keep all safety features, guards, interlocks and sensors in good working order.

Always ensure that all mechanical motion has stopped and allow any heated components to cool down before removing any machine parts.

Keep the area surrounding the machine free from debris. Spent film/bags should not be allowed to accumulate around bagger.

The safety information presented in this manual are guidelines that should be followed by all personnel. Anyone operating or maintaining the equipment should read and follow all safety information in this manual, without exception.

All Operators should be familiar with their own Labor Protection Guidelines. Hands, arms, hair and clothing should not be near any 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.

EMERGENCY STOP (E-STOP) BUTTON

An Emergency Stop (Red) Button is part of HMI/PC Box. The E-Stop immediately stops the machine when pressed by de-energizing power to the PLC outputs, motors, and motor drives.

FIRE PREVENTION

Keep a fire extinguisher near the machine. Keep machine away from any sparks, flames and flammable materials. Unplug the machine before maintaining or cleaning. All electrical components must be in good condition and clean.

Electrical fires can occur if any wires are scratched, corroded, color-faded, lost their insulation or have damaged wire ends. These should be changed immediately.

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

It is extremely important to follow all of the safety guidelines and warning detailed inside the Operator Manual before removing any guards or servicing the machine.

1.3 Equipment Safety Features

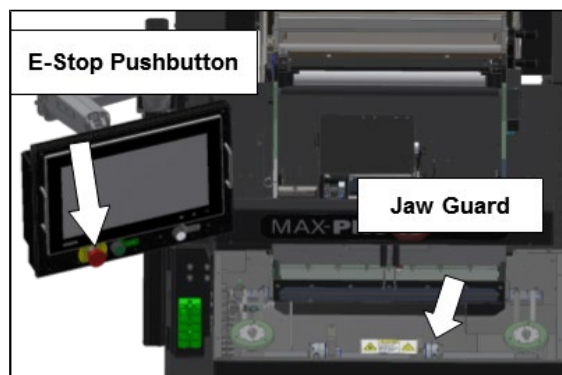
MACHINE GUARDS

The MaxPro Bagger is equipped with guards covering the heated sealing area and the underside of the Head Assembly. DO NOT operate the MAX™ PRO 18© with these or any other guards removed.

The Top Lexan® Guard sits on top of the Jaw Guard. The shape allows for loading of product into the bags. Pregis recommends the MAX™ PRO 18© be equipped with the optional Dual Palm Buttons to start the cycle to ensure the operator's hands are clear of the Sealing and Pressure Bars when the machine is cycled.

DO NOT operate the unit with this feature removed.

An Emergency-Stop Button is located on the Control Panel, which immediately stops the machine when pressed by de-energizing power to the Master Control Relay, PLC outputs, motor, motor drive and air valves.



OBSTRUCTION SENSING JAW

The Sealing Assembly is equipped with Obstruction Sensing Sensors, which can detect an obstruction in the Sealing Area. If the Jaw Sensors detect an object preventing the Jaw from closing, the Sensors de-energize and place the machine into a fault condition.

A message appears in the display informing the Operator of the Jaw Fault, allowing the Operator to clear the Sealing Area and reset the bagging cycle.



WARNING!

The MaxPro Bagger is equipped with Jaw Obstruction Detection Sensors. The sensors are not designed, nor intended, to be safety sensors.

SAFETY LABELS

Side Crush And Burn Hazard



This label is placed onto the MaxPro Bagger wherever a removable shield, or panel, guards the heated sealing area. Always disconnect electrical power from the machine prior to removing any guards and/or panels.

Entanglement Hazard, Rotating Parts



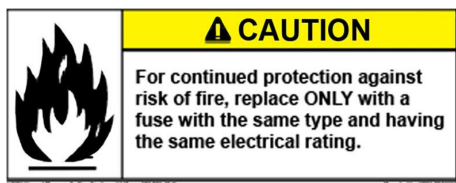
This label is placed where there is the potential of your hands, long hair, jewelry, etc., becoming entangled between two rotating parts. Be sure to secure loose items before approaching and operating the machine.

Moving Parts Can Crush And Cut (Pinch Point)



This label on the MaxPro Bagger is placed where there is potential of injury due to pinch points or moving parts. Make certain electrical power is disconnected before removing any guards and/or panels.

Risk Of Fire



The following label is located in the proximity of a fused circuit. Be certain to replace blown fuses ONLY with fuses with the same electrical rating. Always disconnect electrical power before removing any guards and/or panels and servicing the MaxPro Bagger

Risk Of Electric Shock



This label is located on the MaxPro Bagger wherever a removable shield, or panel, guards electrical components. Always disconnect electrical power from machine prior to removing any guards and/or panels with this label.

1.4 Specifications

PACKAGING SPECIFICATIONS

	BAG WIDTH	BAG LENGTH	FILM GAUGE
MINIMUM	2" (5 cm)	3.5" (8.89 cm)	1 mil (25 microns)
MAXIMUM	18" (45.72 cm)	40" (101.6 cm)	4 mil (100 microns)

MACHINE SPECIFICATIONS

WIDTH	HEIGHT	DEPTH	WEIGHT	POWER	RATE	OPERATING TEMP	HUMIDITY RANGE
41.5" (105.4 cm)	43.5" (110.4 cm)	71.75" (182.2 cm)	710 lbs. (322.05 kg)	110VAC, 15A	50 BPM ¹	32° - 140° F	10% - 90% RH, Non-Condensing

¹Material, gauge and size of package, along with weight and size of product will cause rate to vary.

TECHNICAL ASSISTANCE

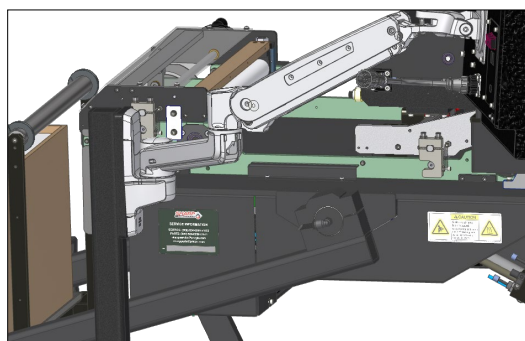
Assistance with your MaxPro Bagger can be obtained by contacting Pregis Technical Service Hotline by phone or e-mail. To help serve you better, Pregis requests that you provide the serial number of baggers and a brief description of the problem.

Phone: +1 (262) 246-8815 (ext. 1572)

E-mail: TechnicalSupport@Pregis.com

SERVICE INFORMATION DECAL

The serial number can be found on the Service Information Decal located on the side of the bagger.



In the above example:

MAX18 - Type of bagger.

19L - The year and month bagger was built.

1174-02 - Model Number of bagger.

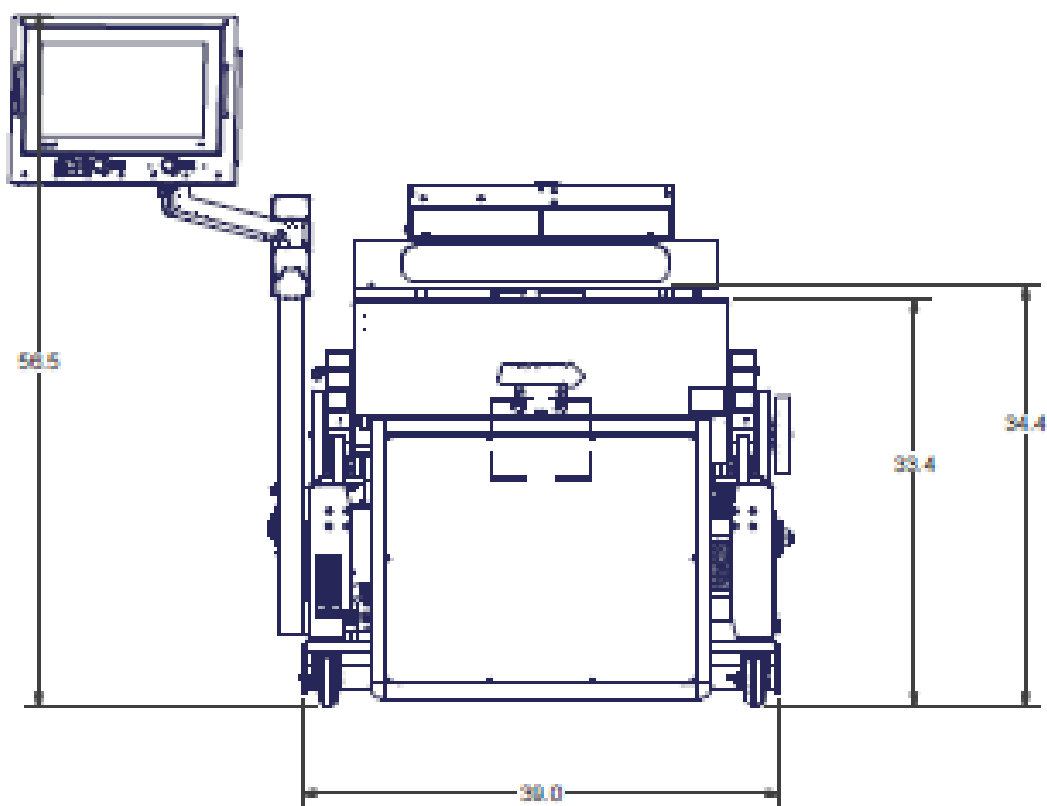
XXX - The number of bagger.

1.5 Machine Dimensions

FRONT VIEW

Bagger dimensions viewed from front.

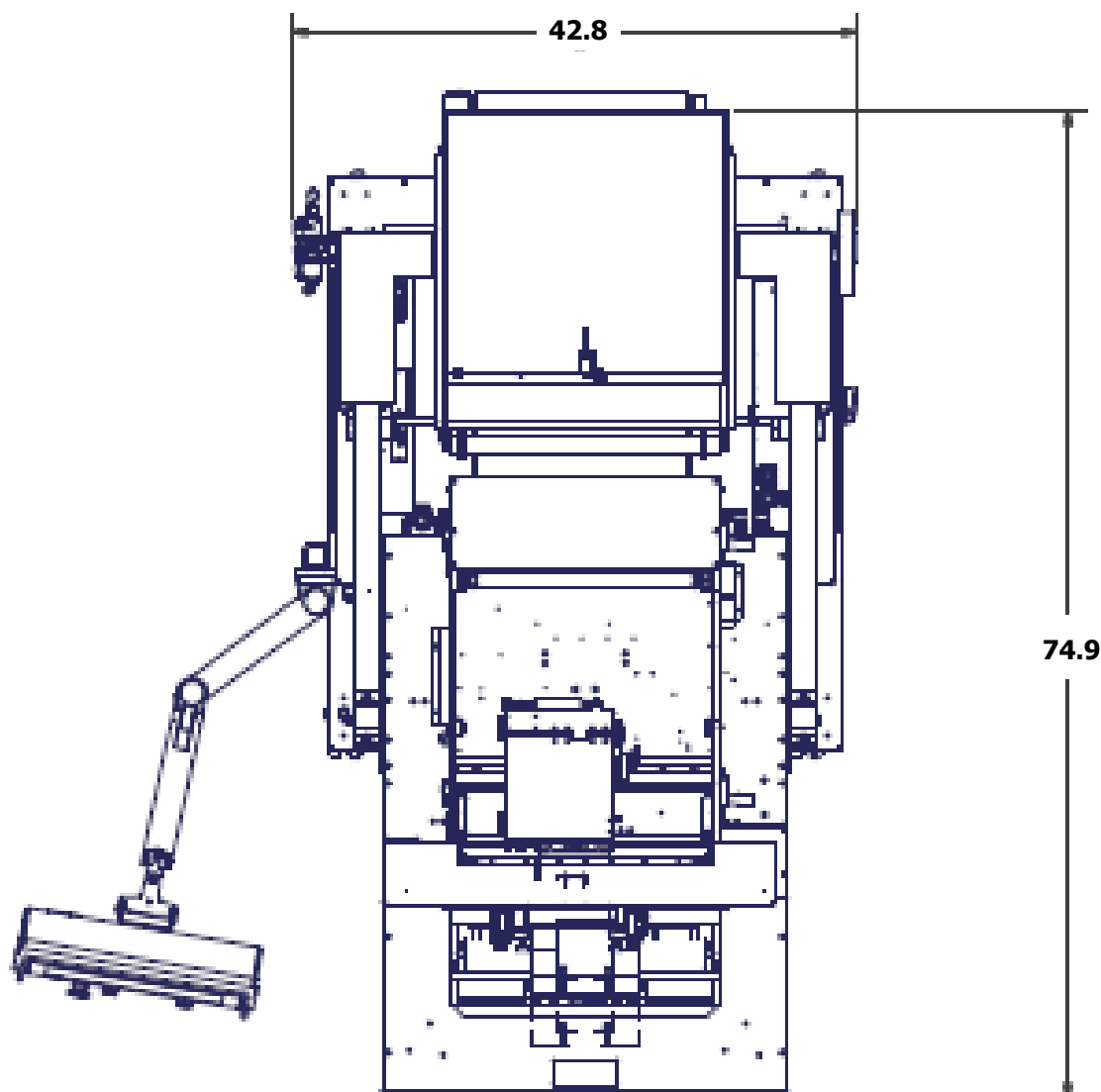
Measurements are in inches.



TOP VIEW

Bagger dimensions viewed from top.

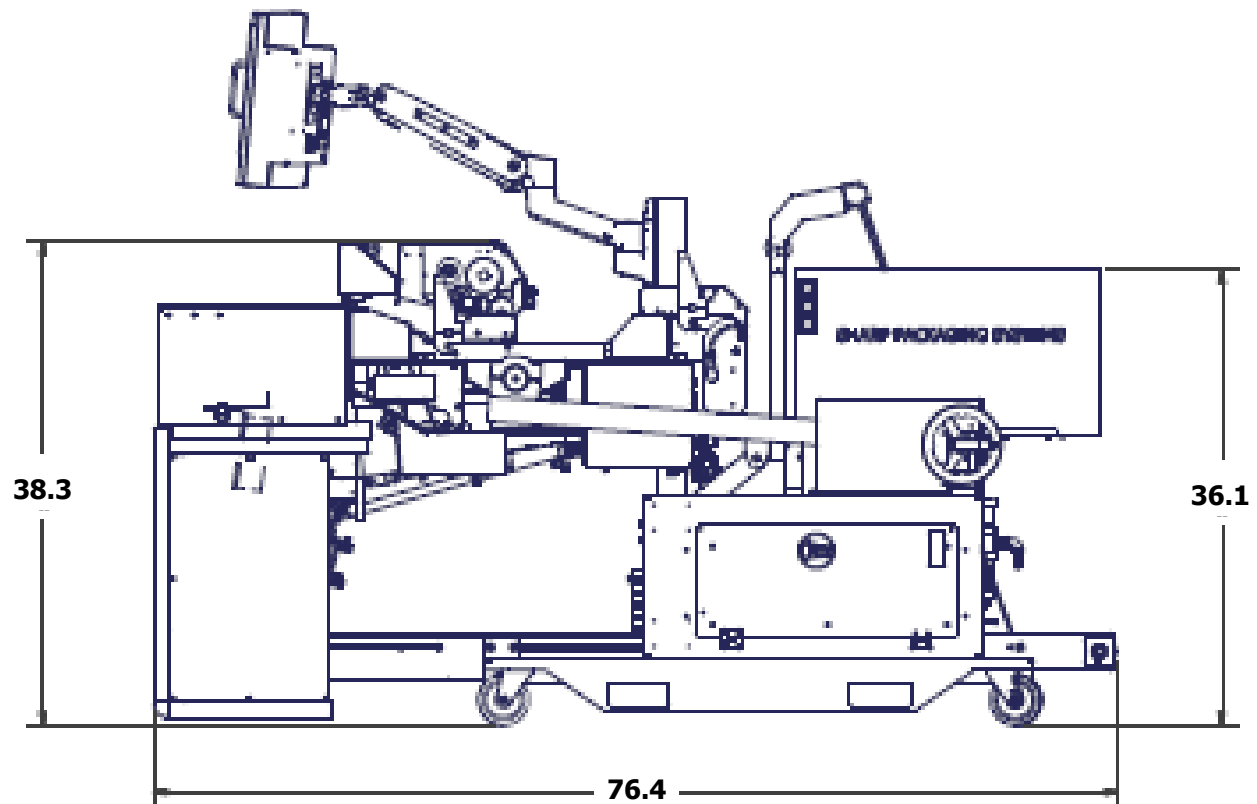
Measurements are in inches.



SIDE VIEW

Bagger dimensions viewed from side.

Measurements are in inches.



1.6 Poly Lite® Mailers and Bags

The MaxPro Bagger is designed to use a wide variety of bag sized and materials. Poly Lite Bags are recommended for optimum operating performance, efficiency and safety. System performance specifications are base on utilizing consistent, high quality, pre-opened bags. Any bag used must meet Pregis manufacturing tolerances. The following list shows so me of the Poly Lite films available through Pregis.:

Poly Lite®

- General Purpose
- Xtreme Poly (XP)
- Ultra
- HD Mailer
- Pregis High Density (PHD)
- Polypropylene
- Pregis' Military Specification Film
- Gamma Patient
- Pregis' Metalized Barrier Film
- Electric Static Discharge (ESD)
- Modified Atmospheric Packaging (MAP)
- Pregis' Non-Scratch Film
- Poly Stat™ (Anti-Static)
- Vapor Corrosive Inhibitor (VCI)

Contact Pregis Customer Service to order Poly Lite® and for information regarding film and bag specifications.

Pregis US

Service: +1 866-904-6979

E-Mail: TechnicalSupport@Pregis.com

Parts: +1 866-904-6979

E-Mail: PartsSupport@Pregis.com

Pregis International BV

Service: 00800 888 888 44

THERMAL TRANSFER RIBBON

The MaxPro Bagger uses thermal transfer ribbon to print various information onto the bags as they pass through the machine. The following is a list of ribbon that is available through Pregis:

- Standard Direct Wax Ribbon
- Premium Was Resin Ribbon.

Contact Pregis Customer Service at +1 866-904-6979 to order ribbon.

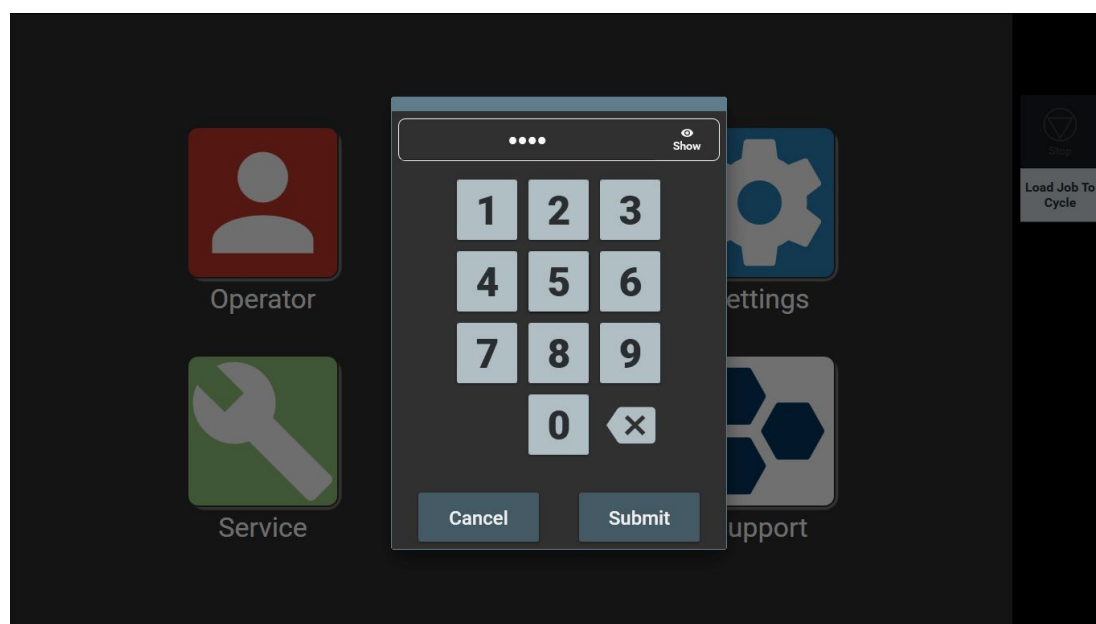
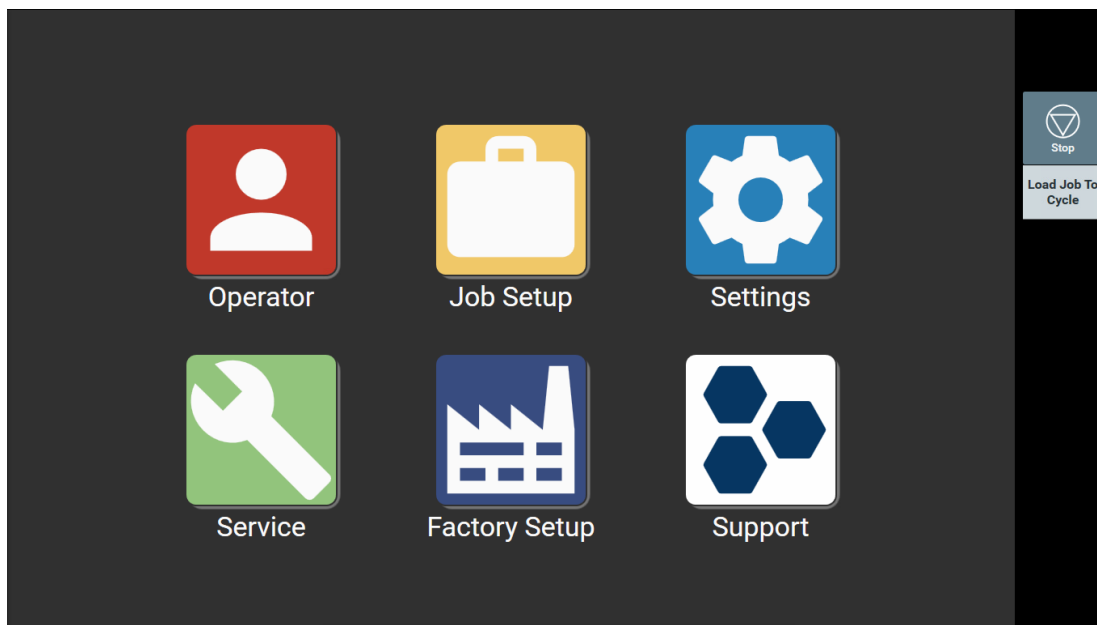
2. Controls

2.1 Security

The 'Technician', 'Field Service', and 'Manufacturing' icons are password protected. Pressing any of these three icons will prompt users to type in a password.

The 'Operator' and 'Support' icons are not password protected.

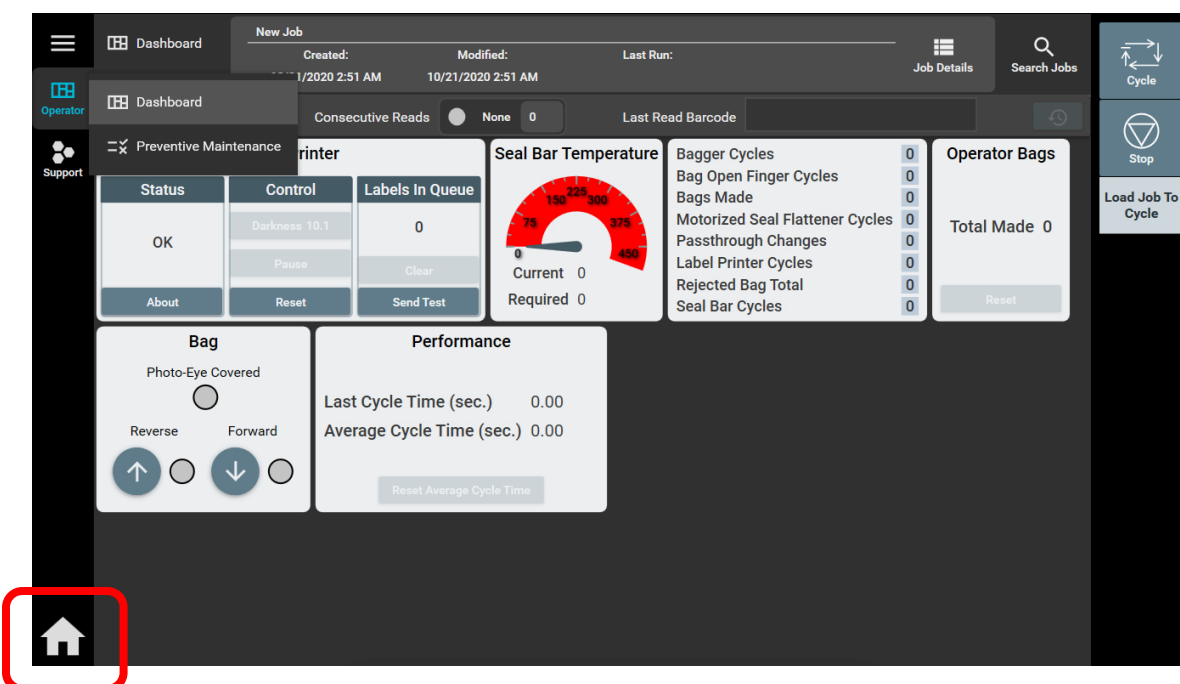
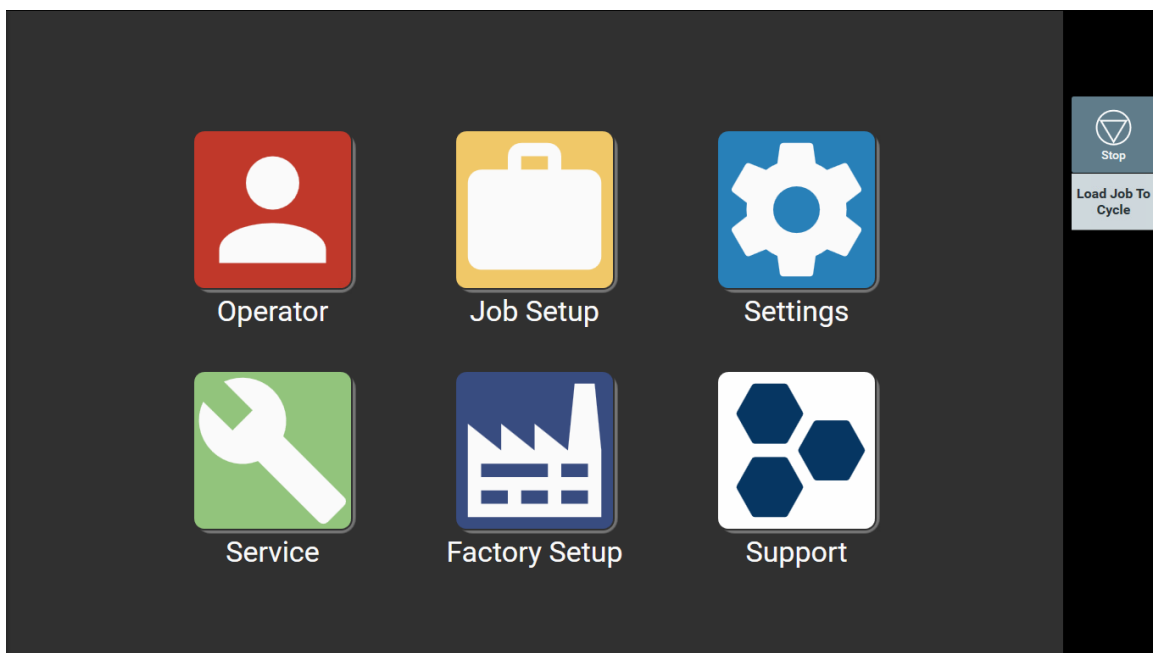
NOTE: See Supervisor or Manager for correct password for each icon.



2.2 Screen Navigation

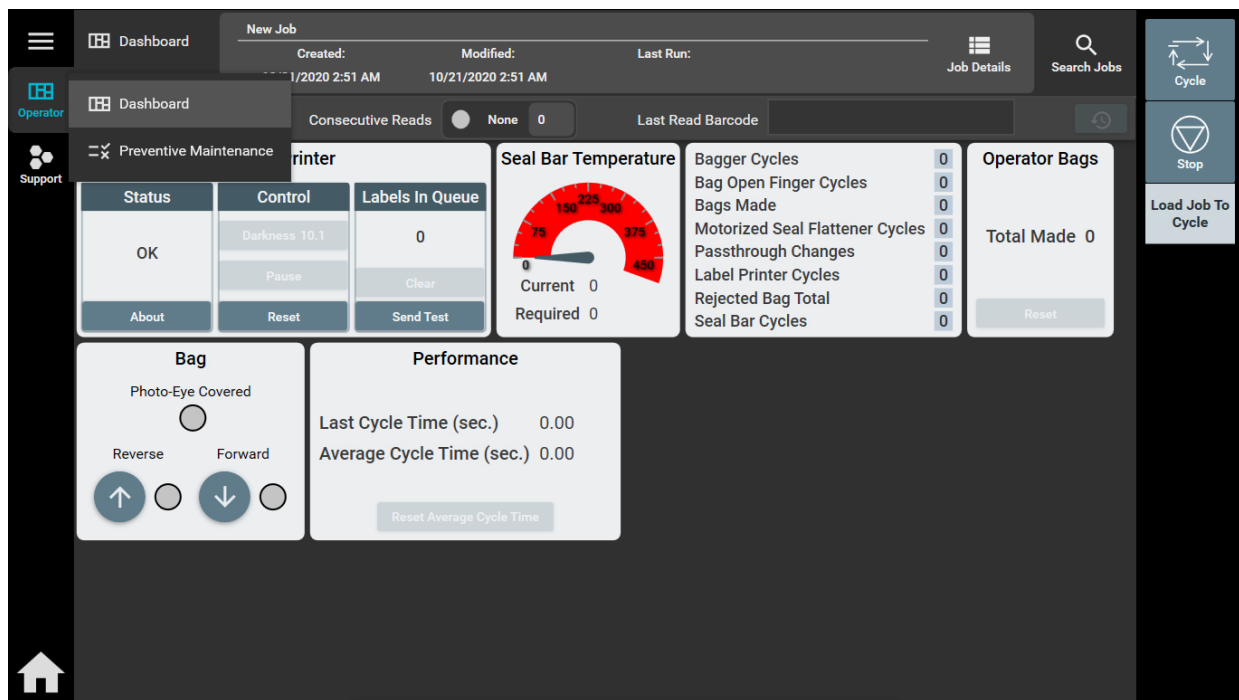
HOME SCREEN

This screen appears at machine start-up and by pressing the home button on bottom left corner of screen. Pressing any of the 5 large buttons on this screen, opens new screen.



OPERATOR BUTTON

Pressing the Operator Button from the Home Screen opens the Operator Dashboard Screen. This screen allows Operator to monitor bagger function. Access to this screen is not password protected.



JOB DETAILS

Pressing the Job Detail button opens a pop-up window with bag dimensions and bag feed speed.

SEARCH JOBS

Opens a window that lists all jobs saved in bagger. Green light indicates which job is currently loaded.

LABEL PRINTER

Status: Reported status from Zebra Label Printer. Pressing About button shows details of the printer.

Control: Pause button pauses printer. Only works if you are Service/Factory User.

Darkness: Allows user to change darkness of print. Only works if you are a Service/Factory User.

Reset: Resets internal printer faults (e.g., Printhead errors)

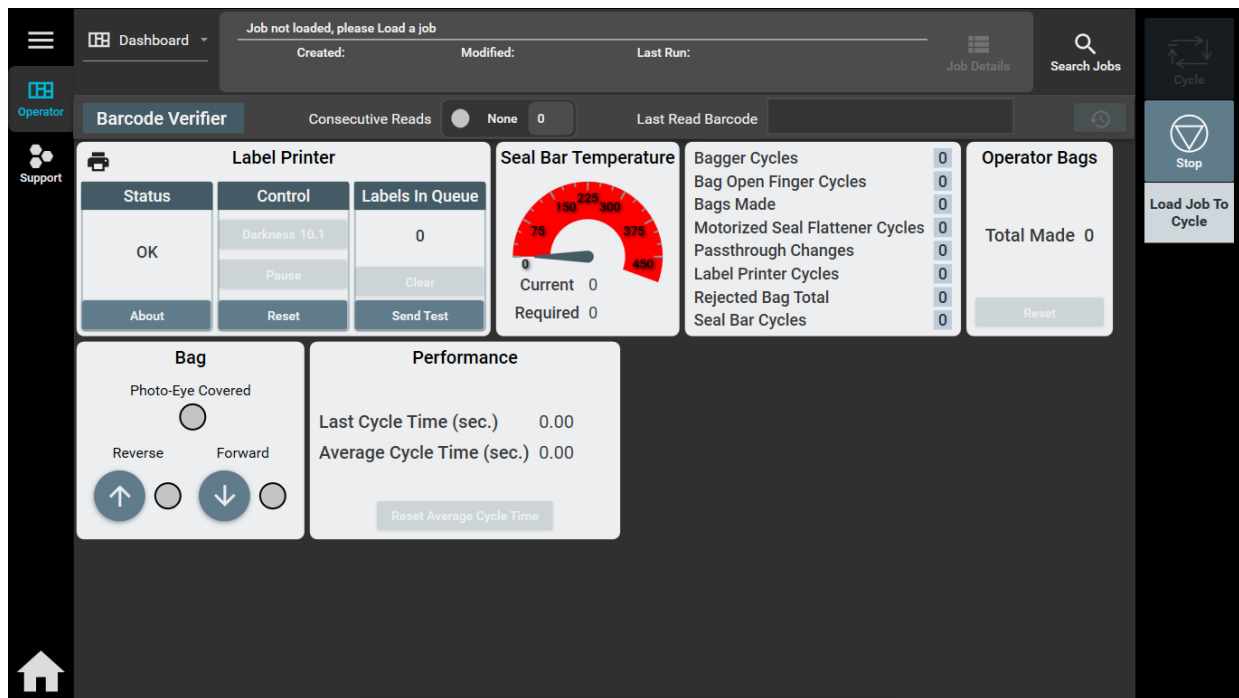
Labels in Queue: Clear button clears out all labels from printer.

Send Test: Sends 1 test label to printer.

BAG

Photo-eye Covered: When Lit bag is over Photo-eye.

Reverse and Forward: Buttons jog film.



PERFORMANCE

Last Cycle Time: Displays the actual time of last completed cycle, in seconds.

Average Cycle Time: The average cycle time all cycles, in seconds.

Reset Average Cycle Time: Reset or clears the average cycle time.

SEAL BAR TEMPERATURE

Current: The current temperature of Seal Bar.

Required: The temperature of Seal Bar per settings in loaded job.

MACHINE COUNTERS

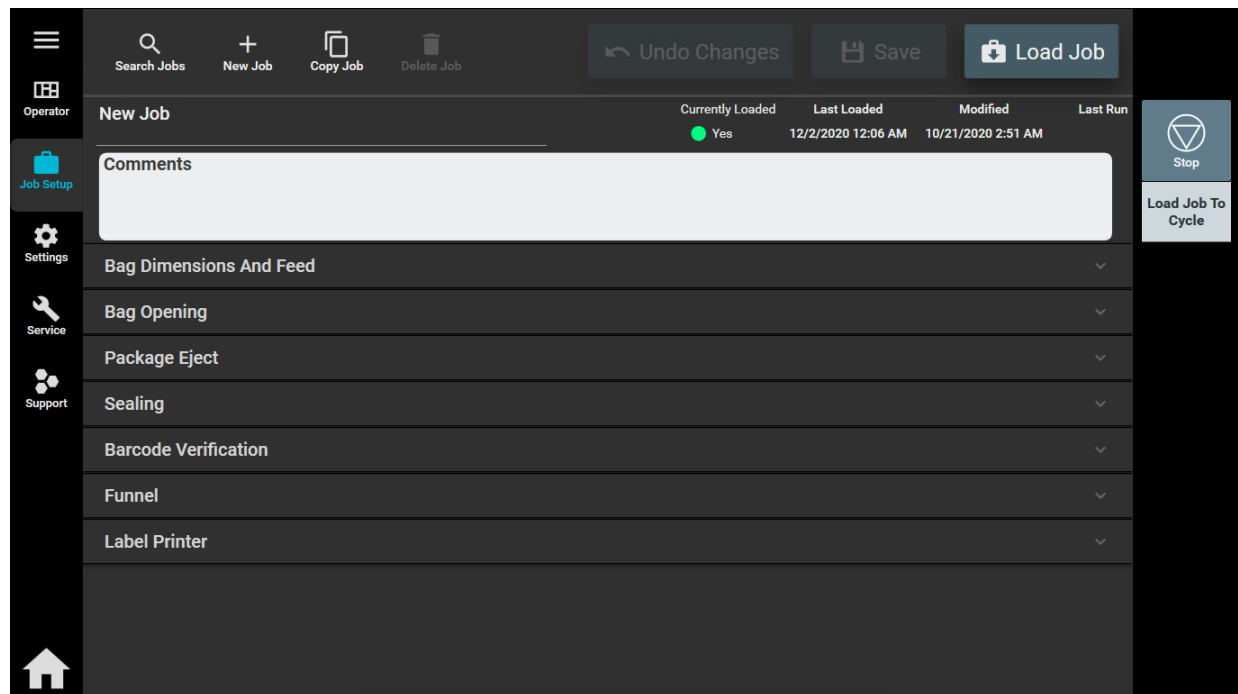
Informational display of counters and cycles of bagger.

OPERATOR BAGS

Operator Resettable bag counter.

TECHNICIAN BUTTON

Pressing the **Technician Button** from the Home Screen opens the Job Setup Screen. This screen allows a User to configure Bag Dimensions and Feed Speed, Bag Opening, Package Eject, Pressure Bar and Seal Bar, Auxiliary Input/output and Printer. Access to this screen is password protected.



JOB SETUP SCREEN - BAG DIMENSIONS AND FEED SPEED

The screenshot displays the 'Job Setup Screen - Bag Dimensions and Feed Speed'. The interface includes a top navigation bar with icons for Search Jobs, New Job, Copy Job, and Delete Job, along with buttons for 'Undo Changes', 'Save', and 'Load Job'. The main content area is divided into several sections: 'New Job' status (Currently Loaded: Yes, Last Loaded: 12/2/2020 12:06 AM, Modified: 10/21/2020 2:51 AM, Last Run), 'Comments', 'Bag Dimensions And Feed', 'Bag Opening', and a 'Stop' button with 'Load Job To Cycle'. The 'Bag Dimensions And Feed' section contains three sub-sections: 'Bag Dimensions' (Bag Width: 18 in., Bag Length: 18 in., Bag Thickness: 2 mil, Skirt Length: 1.5 in.), 'Bag Feed Speed' (Forward Speed: 60 in. per sec., Reverse Speed: 10 in. per sec.), and 'Low-Pressure Air' (LPA During Bag Feed: Off). The 'Bag Opening' section contains four sub-sections: 'Bag Open Assist' (Bag Open Retry Setting: 3, Feed New Bag Setting: 0), 'High-Pressure Air' (HP Air: 0.5 sec.), 'Low-Pressure Air' (LP Air: 5 sec.), and 'Jaw Passthrough' (Passthrough: 8 in.).

Any changes made to this screen requires operator to press '**Load Job**' button.

Bag Dimensions

Length: This refers to the usable area inside the bag. This is measured from the bottom of the bag to the seal. The typical setting is .5 to 1.5 inches less than the measured overall bag length.

Skirt Length: The distance from the bottom of the bag to the start of the seal.

Width: The width of the loaded bag.

Thickness: The thickness of bag material.

Bag Feed Speed

Forward: Adjusts the forward web speed in inches per second.

Reverse: Adjusts the reverse web speed in inches per second.

Bag Opening

Bag Opening Retry Count: Display the number of attempts Bag Opening Fingers try open bag before feeding new bag out.

LPA

LPA During Bag Feed: Toggle switch to have LPA ON or OFF while bag feeding out. This helps open the bag.

JOB SETUP SCREEN - BAG OPENING

The screenshot shows the 'Job Setup Screen - Bag Opening' interface. At the top, there's a navigation bar with icons for Search Jobs, New Job, Copy Job, and Delete Job. Below this is a 'New Job' section with a 'Comments' field and status indicators for 'Currently Loaded' (Yes), 'Last Loaded' (12/2/2020 12:06 AM), 'Modified' (10/21/2020 2:51 AM), and 'Last Run'. The main content area is divided into two main sections: 'Bag Dimensions And Feed' and 'Bag Opening'. The 'Bag Dimensions And Feed' section includes 'Bag Dimensions' (Bag Width: 18 in., Bag Length: 18 in., Bag Thickness: 2 mil, Skirt Length: 1.5 in.), 'Bag Feed Speed' (Forward Speed: 60 in. per sec., Reverse Speed: 10 in. per sec.), and 'Low-Pressure Air' (LPA During Bag Feed: Off). The 'Bag Opening' section includes 'Bag Open Assist' (Bag Open Retry Setting: 3 count, Feed New Bag Setting: 0 count), 'High-Pressure Air' (HP Air: 0.5 sec.), 'Low-Pressure Air' (LP Air: 5 sec., Always Off/Always On), and 'Jaw Passthrough' (Passthrough: 8 in.). A sidebar on the left contains navigation icons for Operator, Job Setup, Settings, Service, and Support. A top bar includes 'Undo Changes', 'Save', and 'Load Job' buttons. A right sidebar has 'Stop' and 'Load Job To Cycle' buttons.

Any changes made to this screen requires operator to press '**Load Job**' button.

Jaw Pass-Thru

Pass-Thru: Sets Pass-thru, will change (move) once job is loaded.

Low Pressure Air - Press box in middle to set timeout for LPA at end of cycle to hold bag open.

Always OFF: Always OFF

Always ON: Always ON

High Pressure Air

HP Air Dwell: Sets the length of time, in seconds, the High Pressure Air blasts.

Vacuum

Vacuum Dwell: Sets the length of time, in seconds, that Vacuum creates suction.

JOB SETUP SCREEN - PACKAGE EJECT

Any changes made to this screen requires operator to press '**Load Job**' button.

Bag

Bag Drop Time: Time for bag to drop before feeding new bag out.

LPA

LPA Bag Eject Assist: Toggle switch turns LPA ON or OFF to assist the ejection of sealed bag.

Integrated Exit Conveyor

Runtime: Timeout for Integrated Exit Conveyor, starts when package starts to fall.

Load Plate

Load Plate Dwell: Timeout for load plate in discharge position.

Load Plate Delay: Starts when bag starts to fall.

JOB SETUP SCREEN - PRESSURE BAR AND SEAL BAR

The screenshot shows the 'New Job' setup screen. At the top, there are buttons for 'Search Jobs', 'New Job', 'Copy Job', and 'Delete Job'. Below these are 'Undo Changes', 'Save', and 'Load Job' buttons. A status bar shows 'Currently Loaded' as 'Yes' with a green dot, and 'Last Loaded' as '12/2/2020 12:06 AM'. The 'Modified' date is '10/21/2020 2:51 AM'. On the right, there is a 'Stop' button and a 'Load Job To Cycle' button. The left sidebar has icons for 'Operator', 'Job Setup', 'Settings', 'Service', and 'Support'. The main area is titled 'New Job' and contains a 'Comments' text box. Below this is the 'Sealing' section, which includes three sub-sections: 'Pressure Bar', 'Seal Bar', and 'Independent Bag Deflator'. The 'Pressure Bar' section has 'Open Delay (sec.)' and 'Close Delay (sec.)' input fields, both set to 0. The 'Seal Bar' section has 'Seal Bar Dwell (sec.)' set to 1, 'Seal Bar Temperature (°F)' set to 300, and a 'Separate Before Seal' toggle switch set to 'On'. The 'Independent Bag Deflator' section has 'Offset (in.)' and 'Dwell (sec.)' input fields, both set to 0. Below the 'Sealing' section is the 'Barcode Verification' section, which includes 'Barcode Verifier Settings' and 'Consecutive Bad Reads To Fault'. The 'Barcode Verifier Settings' section has 'In Use' set to 'On', 'Start Position (in.)' set to 0, and 'Scan Distance (in.)' set to 0. The 'Consecutive Bad Reads To Fault' section has a 'Bad Reads to Fault (count)' input field set to 1.

Any changes made to this screen requires operator to press '**Load Job**' button.

Pressure Bar

Open Delay: Adjusts the delay, in seconds, that occurs prior to opening the Pressure Bar.

Close Delay: Adjusts the delay, in seconds, that occurs prior to closing the Pressure Bar.

Seal Bar

Dwell: The amount of time the heated seal bar will remain in contact with the film. High quality seals are accomplished through proper seal time settings. These settings will vary with the film gauge and material.

Temperature: Sets the desired temperature of seal bar.

Separate Before Seal - Toggle switch that turns ON/OFF a feature that, prior to sealing the bag, will reverse the web when the pressure bar is closed in order to disconnect the bag from the next bag.

JOB SETUP SCREEN - AUXILIARY INPUT/OUTPUT



Any changes made to this screen requires operator to press '**Load Job**' or '**Save & Load**' button.

Input

Not Configured: No configuration.

Bagger Inhibit: Will not allow bagger to cycle until input held low. Warning appears when this is active.

Output 1

Not Configured: No configuration.

Printer Data Ready: Output active when Printer is ready for a new label.

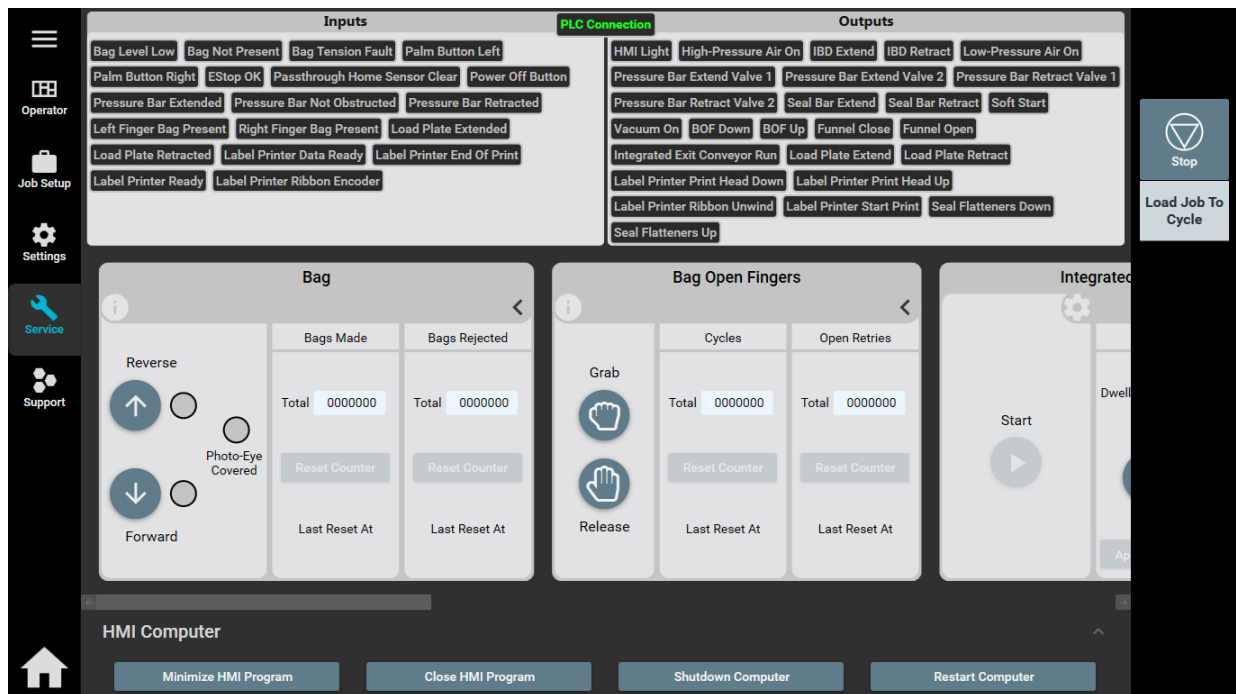
Waiting For Printer: Machine is cycling and film is backed up and ready to print but printer needs label.

Cycle Complete: Cycle done.

Bag Made: Bag is dropping.

Bag Made + Label Required: Bag is dropping AND printer needs a label.

Bags Low: Bags low sensor is active.



Any changes made to this screen requires operator to press '**Load Job**' or '**Save & Load**' button.

Output 2

Not Configured: No configuration.

Printer Data Ready: Output active when Printer is ready for a new label.

Waiting For Printer: Machine is cycling and film is backed up and ready to print but printer needs label.

Cycle Complete: Cycle done.

Bag Made: Bag is dropping.

Bag Made + Label Required: Bag is dropping AND printer needs a label.

Bags Low: Bags low sensor is active.

JOB SETUP SCREEN - PRINTER

The screenshot displays the 'Job Setup Screen - Printer' interface. The top navigation bar includes icons for 'Search Jobs', 'New Job', 'Copy Job', and 'Delete Job', along with buttons for 'Undo Changes', 'Save', and 'Load Job'. The left sidebar contains icons for 'Operator', 'Job Setup', 'Settings', 'Service', and 'Support'. The main content area is titled 'New Job' and features a 'Comments' section, a 'Funnel' section with 'Funnel Settings' (In Use toggle, Open Delay input), and a 'Label Printer' section with 'Printer Settings' (In Use toggle, Print Speed, Print Length, Print Offset inputs, and Clear Label on Job Load toggle). On the right side, there are buttons for 'Stop' and 'Load Job To Cycle'.

Any changes made to this screen requires operator to press '**Load Job**' or '**Save & Load**' button.

Printer Settings

Speed: This numeric setting determines the web feed speed during the print cycle. It is adjustable from 2.00 to 12.00 Inches/Sec. This setting should be set to the same value that resides in the Printer.

Length: This numeric setting determines the distance the web will feed during the print cycle. This should be set to smallest value that will produce the desired label. This setting is approximately $\frac{3}{4}$ of inch longer than the length of the label.

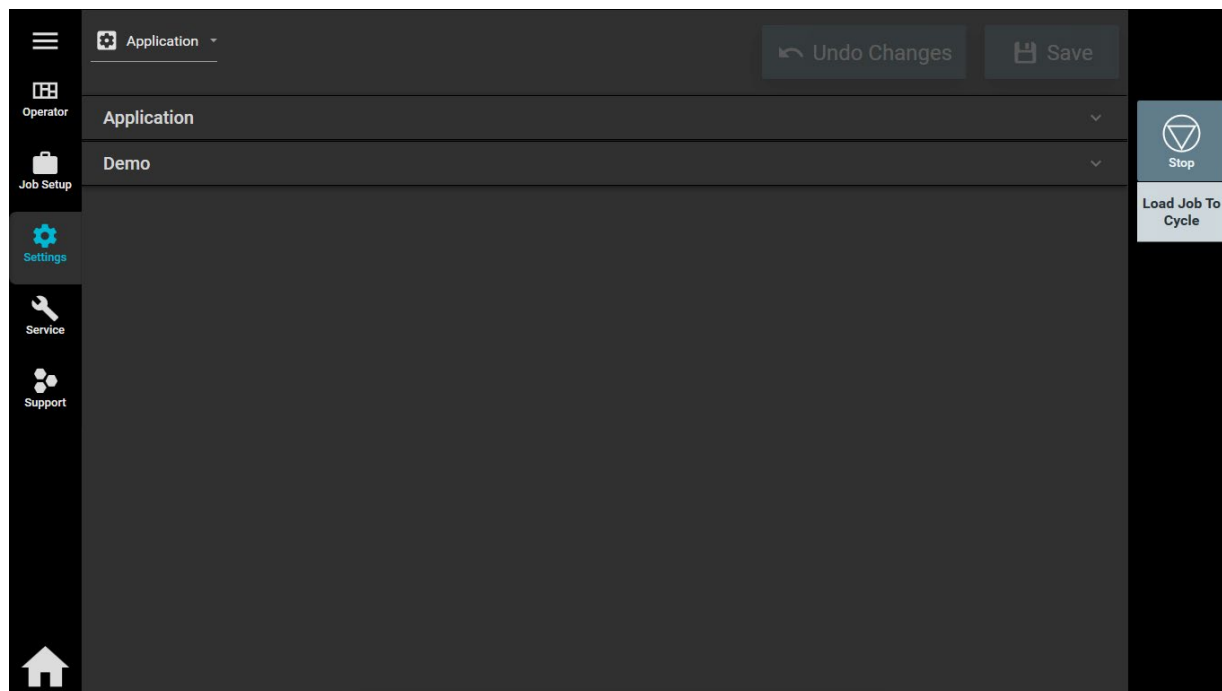
Offset: This numeric setting determines the starting position of the printed label. This can be used to adjust the label position on the bag. It is adjustable from 0 to 10.00.

Clear Label On Job Load: If ON, loading this job will clear out the label queue on the printer.

In Use: Printer is active in this job. If set to OFF, printer will not print.

APPLICATION SCREEN

Pressing the **Settings Button** icon on Left Menu Bar (When in password protected screen) will open the **Applications Settings** page.



Any changes made to this screen requires operator to press '**Load Job**' or '**Save & Load**' button.

Application - This allows a User to select HMI Language and to activate Demo Mode.

Demo Mode - When demo mode is active, the controller automatically sends a test label to the printer on every cycle.

FIELD SERVICE BUTTON

Pressing the **FIELD SERVICE** button from the Home Screen opens the **Service** Screen. This screen displays the Inputs and Outputs that are active (Highlighted Green) on PLC. This screen allows a User to manually trigger Bag Position, Bag Open Fingers, Integrated Exit Conveyor, Load Plate, Low-Pressure Air, High-Pressure Air, Pass-Thru, Pressure Bar, Printer, Seal Bar, Seal Flatteners and Vacuum. Access to this screen is password protected.



HMI Computer

Minimize HMI Program: This button will minimize the HMI program but leaves Operating System open.

Close HMI Program: This button closes the HMI program.

Shutdown Computer: Closes the HMI program and shuts down the PC.

Restart Computer: Closes the HMI program and restarts the PC.

SERVICE SCREEN - BAG



Bag

Photo-Eye Covered: Green light indicates the Photo-eye detects bag.

Reverse: Pressing Reverse button will reverse the web as long as button is pressed.

Forward: Pressing Forward button will advance the web as long as button is pressed.

Bags Made

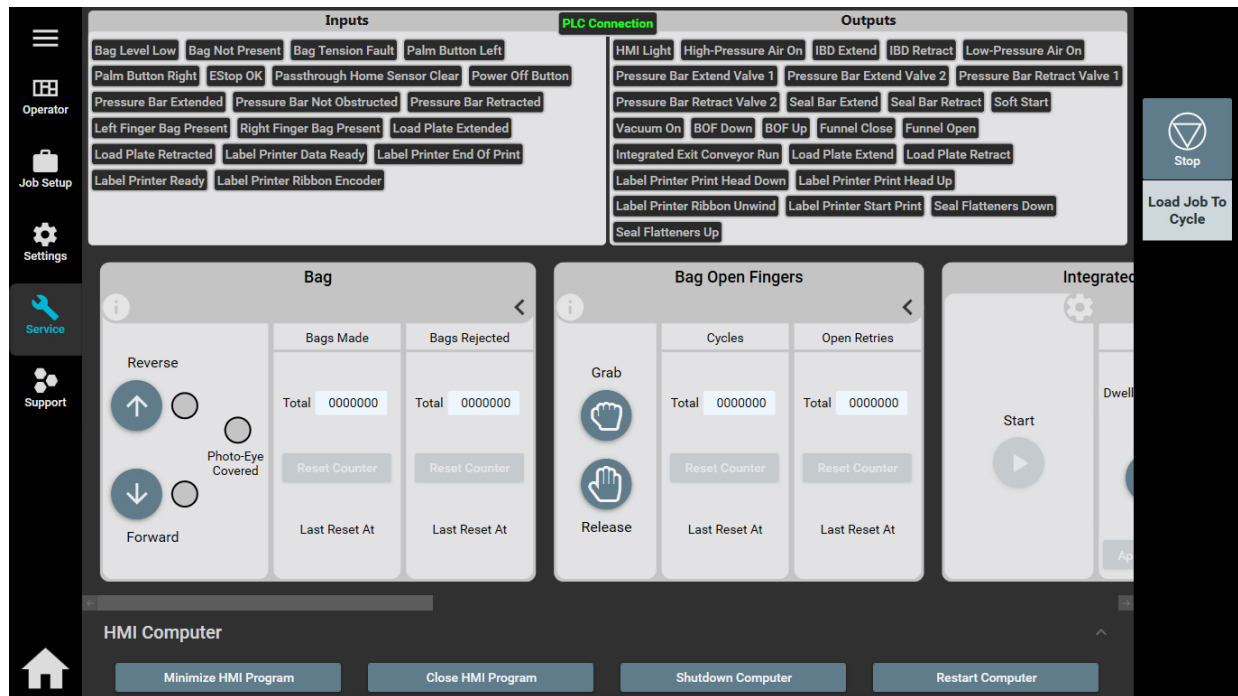
Total: Displays the total number of completed bags since last reset.

Bags Rejected

Total: The total number of bags that have been rejected since last reset.

Reset Counters: Pressing Reset will clear the Total Bags Made or Bags Rejected totals.

SERVICE SCREEN - BAG OPEN FINGERS



FINGERS

Grab: Activates the Bag Open Fingers. Fingers will Rotate down.

Release: Fingers will Rotate up to release the bag.

Cycles

Total: The total number of cycle the Bag Open Fingers have completed since last reset.

Open Retries

Total: The total number of times the Bag Open Fingers have attempted to open fed bag.

Reset Counters: Pressing Reset will clear the Cycles or Open Retries.

SERVICE SCREEN - INTEGRATED EXIT CONVEYOR.

Start: Pressing this button will turn the Conveyor ON. Press button again to stop.

Jog Dwell

Dwell: Time that conveyor will run.

Jog Sec.: Press and hold to run exit conveyor until released. This will change the Dwell.

Apply To Settings: Time that jog was pressed can be set to job dwell setting. Job saves automatically but is not loaded.

Pulse Dwell

Current: Press to run conveyor at job setting.

Pulse Sec: Press to run conveyor at job setting.

Setting: Time for conveyor to run when Pulse Sec. is pushed. Changing this setting will save to job but not load the job.

SERVICE SCREEN - LOAD PLATE



To Discharge: Moves the Load Plate to the 'Discharge' position.

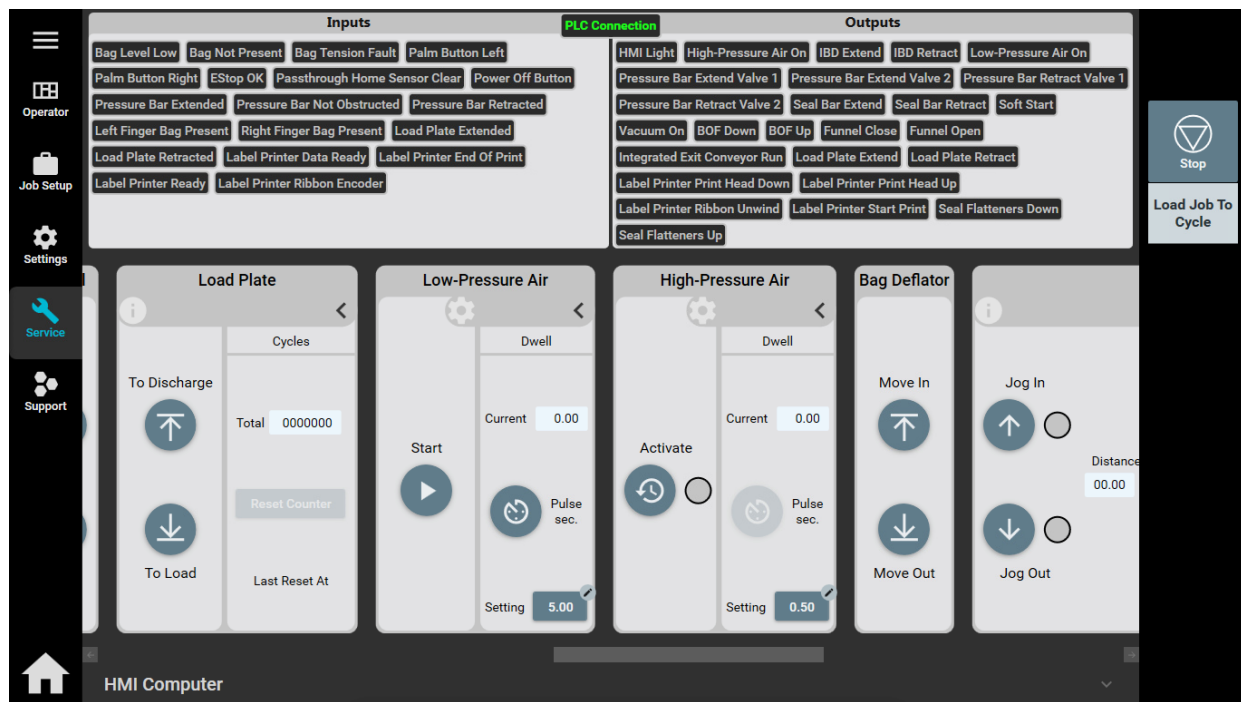
To Load: Moves the Load Plate to the 'Load' Position.

Cycles

Total: Displays the total number of complete Load Plate cycles since last reset.

Reset Counter: Reset the Cycle Total Counter.

SERVICE SCREEN - LOW/HIGH PRESSURE AIR



LOW PRESSURE AIR

Start: Pressing this button turns Low Pressure Air ON. Press again to turn OFF.

Dwell: The amount of time the Low-Pressure Air will be ON according to setting in loaded job.

Current: The actual setting of Low-Pressure Air blast.

Pulse Sec.: Runs Low Pressure Air for job setting dwell.

HIGH PRESSURE AIR

Activate: Turn on the High-Pressure Air as long as button is pushed.

Current: The amount of time the High-Pressure Air will be ON according to setting in loaded job.

Setting: The actual setting of High-Pressure Air blast.

Pulse Sec.: Runs High Pressure Air for job setting dwell.

SERVICE SCREEN - PASS-THRU



Distance: The current Pass-thru distance.

Jog IN: Moves Jaw inward as long as button is pushed or until it reaches Face Plate.

Jog OUT: Moves Jaw outward as long as button is pushed or until it reaches end of travel.

Manual Position

Current: The actual width of Jaw.

Move To In.: Moves Jaw to width set in job settings.

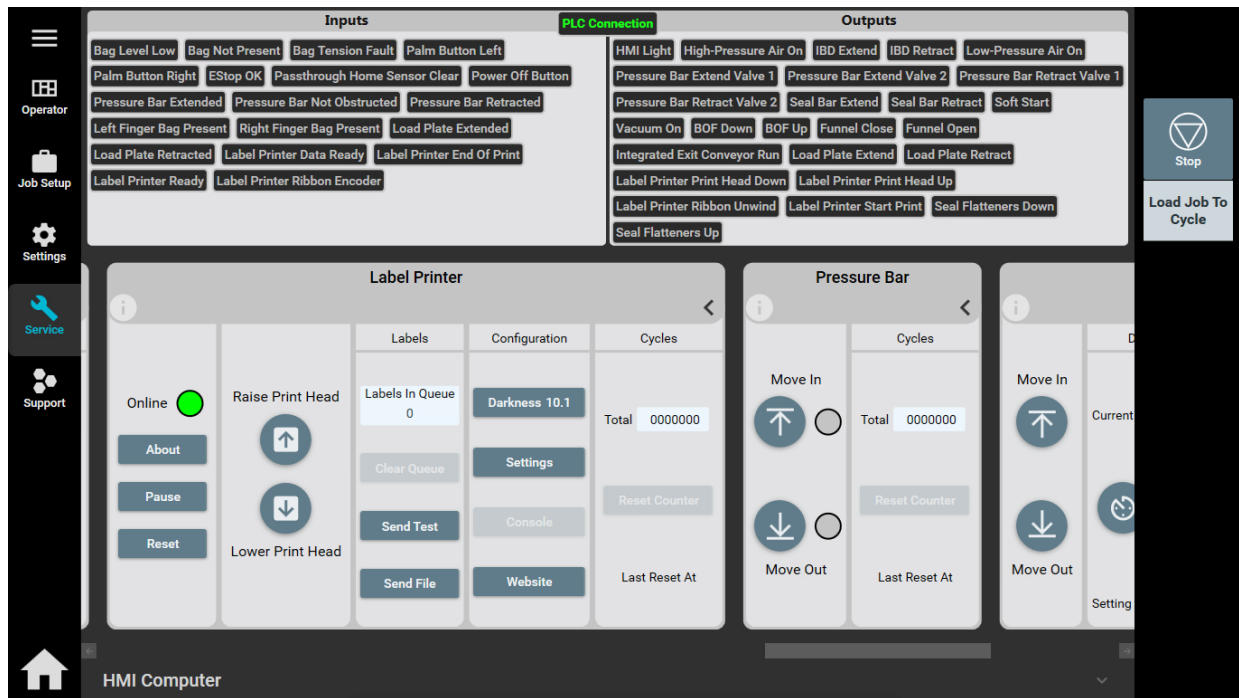
Setting: Active job setting for Pass-thru.

POSITION CHANGES

Total: Displays the total number of changes to Pass-thru since last reset.

Reset Counters:

SERVICE SCREEN - PRESSURE BAR



Move IN: Pressing this button will retract or close the Pressure Bar. Pressure Bar will remain closed until Move OUT is pushed.

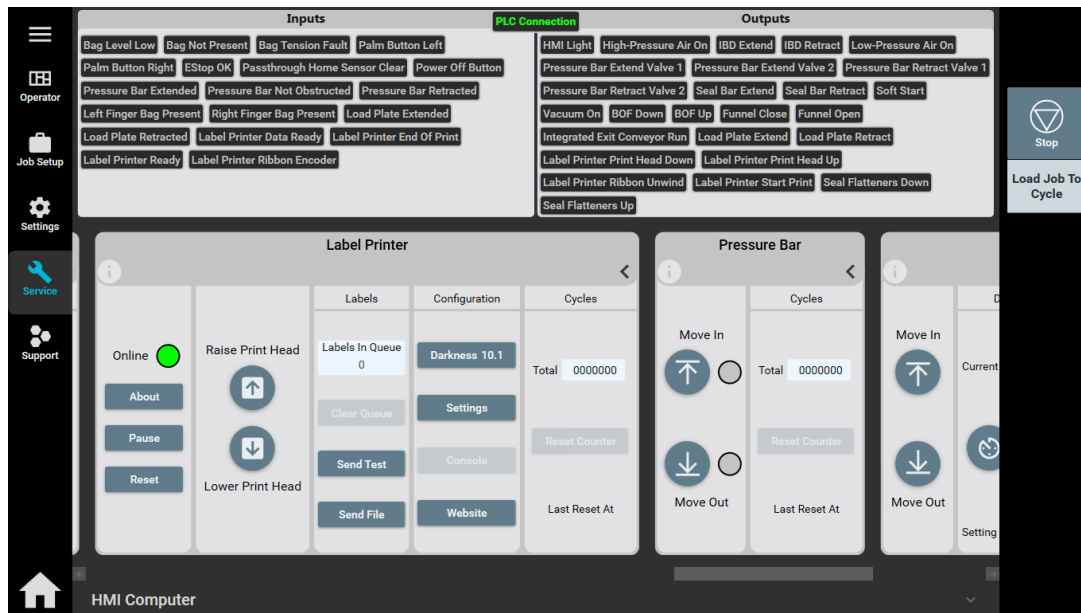
Move OUT: Pressing this button will extend or open the Pressure Bar.

Cycles

Total: Total number of Cycles the Pressure Jaw has completed since last reset.

Reset Counter: Resets the Total Cycles Counter.

SERVICE SCREEN - PRINTER



Online: When lit, printer is on and ready for label.

Pause: The Pause key temporarily suspends printing. Pressing the key again will return the printer to normal operation.

Reset: Clears printer faults.

Raise Printhead: Press to raise Printhead.

Lower Printhead: Lowers the Printhead against film. Remains in place until Raise Printhead is pressed.

LABELS

Labels In Queue: The number of labels loaded into printer.

Clear Queue: Clears the Queue of loaded labels.

Send Test: Sends one Test Label to printer for a test print.

Send File: Opens a Select Label File Dialog Box. User can navigate to stored labels on computer to load into Job.

Configuration - Expert use only!

Darkness: Allows user to change darkness setting.

Settings: Exposes all available printer settings - expert use only!

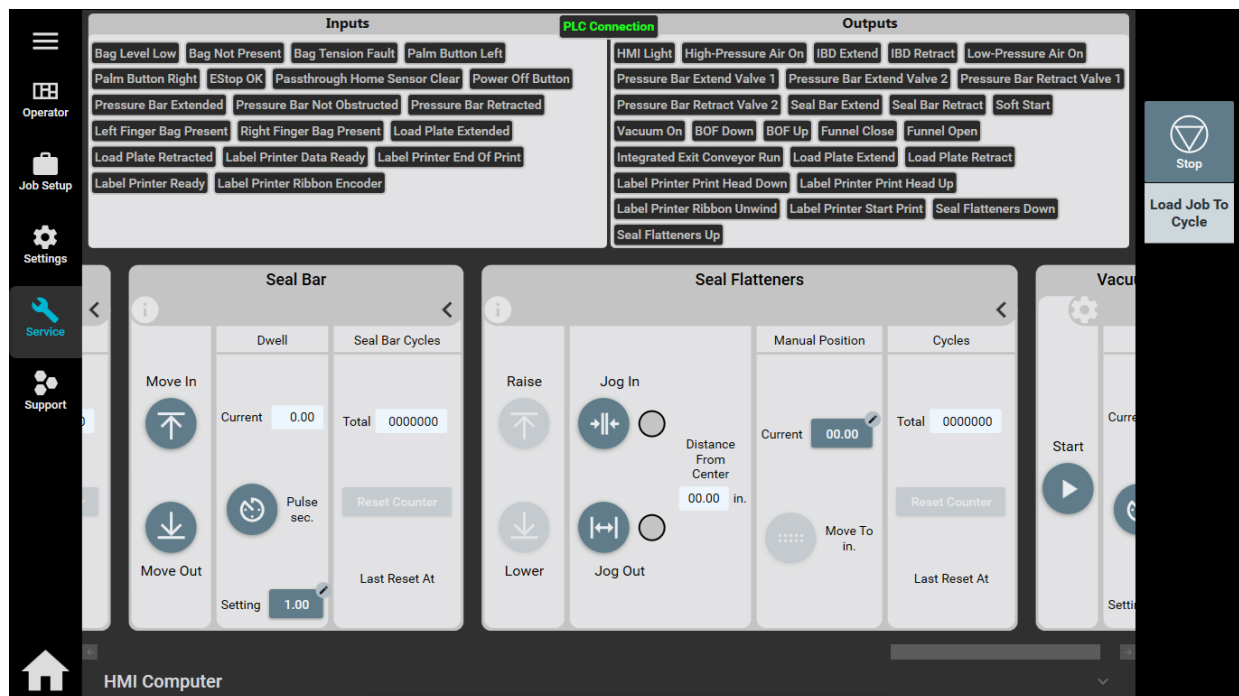
Console: Expert use only! - console to printer to type in JSON and SGD commands manually.

Website: Minimizes HMI and opens browser to local Zebra printer website.

CYCLES

Total: Display total cycles of printer since last reset.

SERVICE SCREEN - SEAL BAR



Move IN: Pressing button will retract Seal Bar.

Move OUT: Pressing button will extend Seal Bar. Seal Bar will remain out until Move IN button is pressed.

Cycle

Current: Displays the length of time Seal Bar is active.

Pulse Sec.: Cycles the Seal Bar. There must be a time set in job settings or Current or Seal Bar will not move.

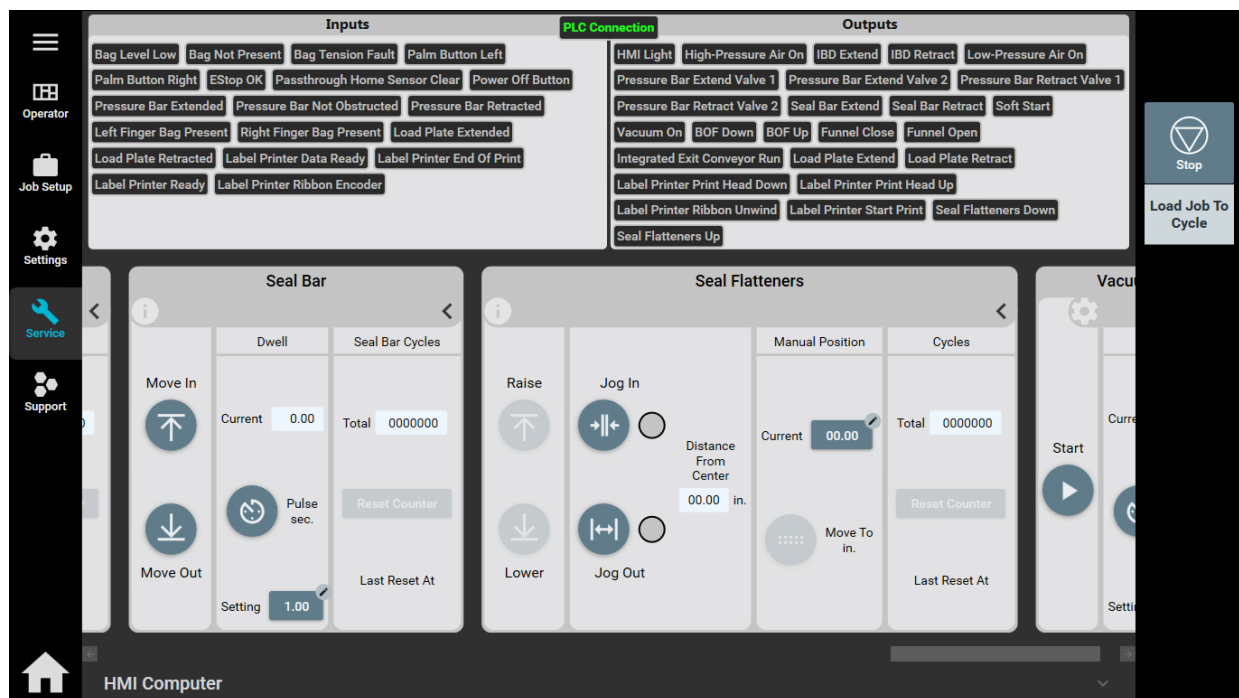
Setting: Displays the Job Setting for temperature.

Seal Bar Cycles

Total: Number of completed Seal Bar Cycles since last reset.

Reset Counter: Resets the Seal Bar Cycles Counter.

SERVICE SCREEN - SEAL FLATTENERS



Raise: Pressing button raised the Seal Flattener Fingers.

Lower: Pressing button lowers the Seal Flattener Fingers.

Distance From Center

The distance that fingers are from the center of sealing area.

Jog IN: Moves fingers IN as long as button is pressed or until fingers reach center.

Jog OUT: Moves fingers OUT as long as button is pressed or until fingers are completely out.

Manual Position

Current: This setting determines the IN setting for the fingers.

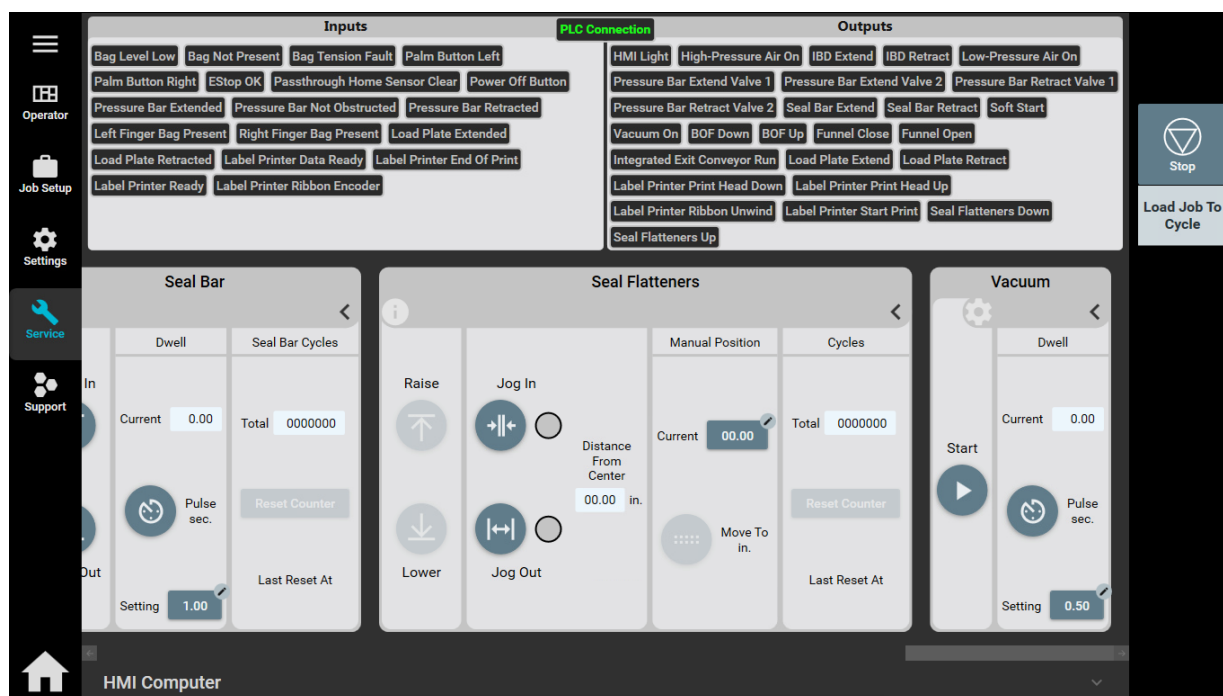
Move To In.: This button moves the fingers to the Current Setting. If Current Setting is zero, fingers will move to center of sealing area.

Cycles

Totals: The number of completed Seal Flattener Cycles since the last reset.

Reset Counter: Resets the total cycles counter.

SERVICE SCREEN - VACUUM



Start: Turns on Vacuum. Vacuum will stay on until button is pressed again.

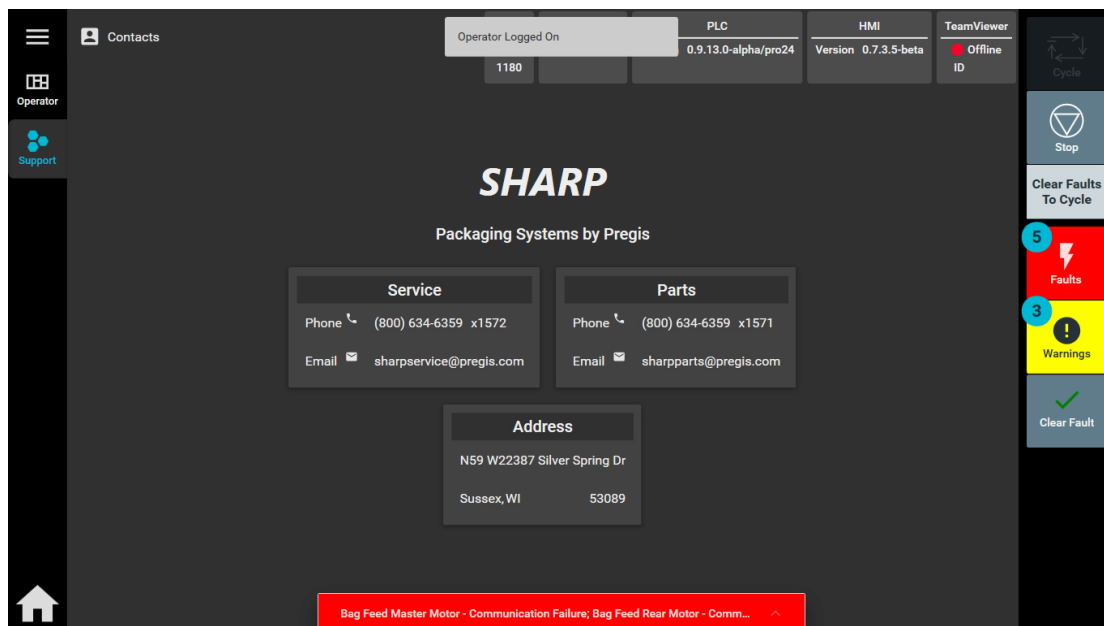
Dwell

Current: The actual setting of the Vacuum ON.

Pulse Sec.: Pressing the button will turn Vacuum ON for length of Dwell Setting.

Setting: The actual length of Vacuum on when button is pushed.

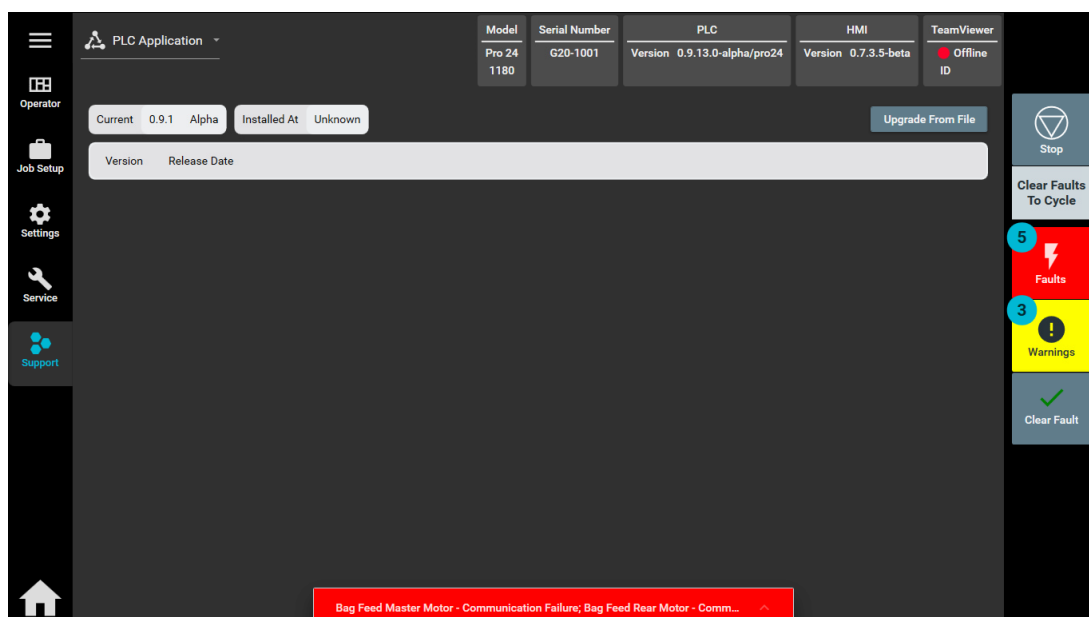
SUPPORT SCREEN



Support Contact - Provides the contact information for Pregis Service and Parts. Also provides Pregis mailing address.

Software Versions - Displays current Software.

Upgrade From File: Allows for mapping to save HMI program file used to upgrade program.



3. Setup-Up & Operation

3.1 Machine Placement

ELECTRICAL PRECAUTIONS

 WARNING
Do not operate the machine in or around standing water. Failure to observe the warning may result in damage to the equipment and/or severe bodily injury.

Ensure no liquids are near the machine to eliminate the possibility of spilling onto any electrical components and creating a short circuit.

Should a liquid spill onto the machine, turn off the power immediately, unplug the power cable and once having cleaned the liquid, have a qualified technician inspect and test all the electrical components to ensure they are functioning properly. To avoid short-circuiting, keep all wires and connections clean and keep your body, hand-held tools and any other electrically conductive objects away from any 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 protections. After installation, check electrical connections before starting the machine.

GROUNDING INSTRUCTIONS

 WARNING
Failure to have properly grounded outlet may cause damage to equipment or severe bodily injury.

Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a qualified electrician or service person 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 least resistance for electrical current. This machine is equipped with a cord having an equipment-grounding conductor for a 3 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. Do not modify the plug provided with the machine.

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 check the ground and correct any problems.

STORAGE

If the machine will not be used for a considerable amount of time, it should be stored in the original shipping crate, in a temperature controlled environment to protect it from damage.

MACHINE PLACEMENT

Your MaxPro Bagger has been shipped to you well crated in order to prevent any damage to the machine. It is important that you follow the Uncrating Instructions attached to crate.

After being uncrated, place the MaxPro Bagger bagger in well ventilated area, on a rigid and vibration free surface. Before continuing with the installation of the machine, ensure all nuts, bolts and screws are tightened as they can

come loose during shipping.

The MaxPro Bagger should be placed in a dedicated space that has a smooth level surface with access to 100 PSI of clean, dry compressed air, and 115 VAC, 50/60 Hz, 20 Amp properly grounded electrical outlet.

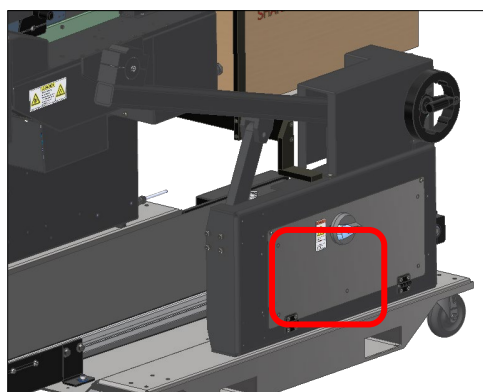
Locate the machine so there is adequate access to the side for loading bag film.

Make sure unit is located at a comfortable height for operation and product loading. See *Height Adjustment* (page 3-3).

The unit is equipped with two swivel locking casters for easy maneuverability. Lock the casters after placing machine in desired location.

POWER CONNECTION

The MaxPro Bagger is equipped with a 3-prong electrical cord for standard, properly grounded, 115 VAC, 50/60 Hz, 10 Amp (minimum) service.



The **MAX™ PRO 18®** requires two power cords. One is for the bagger and the other is for the Printer.

1. Before plugging the cord into the back of the machine, ensure that Main Power Switch is in the OFF position.

2. Plug Male End of Power Cord into properly grounded wall outlet or electrical drop.

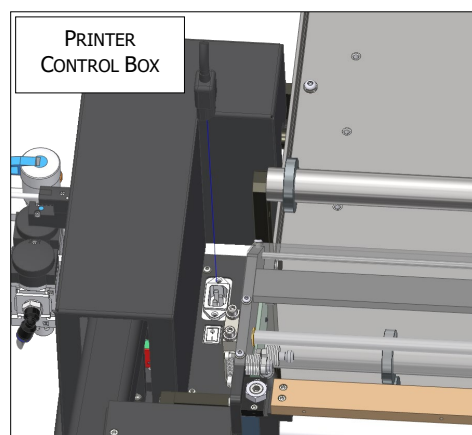
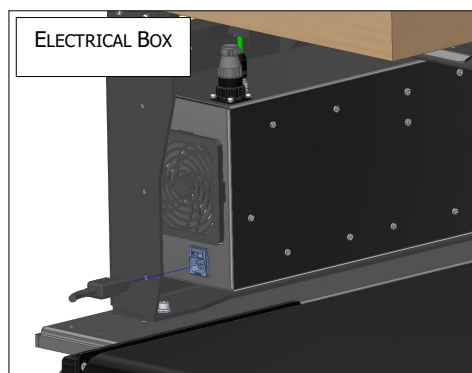
3. Insert Female End of Power Cord into the Power Entry Module on back of Electrical Box. The box is in the Frame Assembly.

4. Turn the switch on the Power Entry Module to ON position.

5. Plug the Male End of second Power Cord into a properly grounded wall outlet or electrical drop.

6. Insert the Female end into Power Entry Module on top of the Printer Control Box. The box is in the Frame Assembly, opposite the Electrical Box.

7. Turn the switch to the ON position.

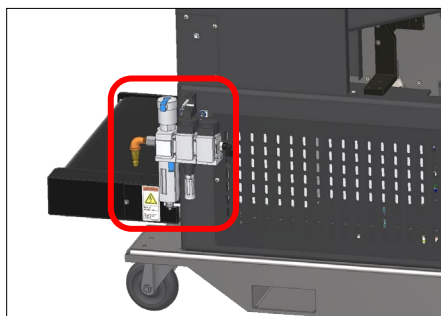


3.2 Machine Adjustments

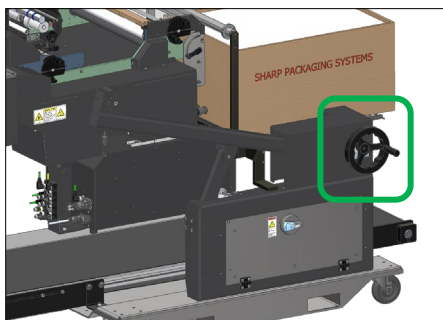
AIR SUPPLY

The MaxPro Bagger has a filter/regulator equipped with a male end 1/4" nominal flow NPT air quick disconnect plug. The machine requires 100 PSI (regulated to 80 PSI) of non-lubricated clean dry air at 5 SCFM. Connect the air supply line to the machine using a MIL-C-4109E or equivalent disconnect coupling.

NOTE: Do not use a lubricator or lubricated air on the machine. Damage to valves and cylinders will occur.



1. Connect Air Hose to Regulator.
2. Unlock Cap on Regulator
3. Adjust to 80 PSI.
4. Lock Cap on Regulator.



HEIGHT ADJUSTMENT

Machine height can be adjusted to allow manual loading at a convenient height.

1. Release the Handle on the Adjustment Wheel.
2. Turn the handle on the side of the bagger to adjust the height up or down to the desired position.
3. Return the handle to original position.

HEAD ROTATION

Rotating the Head Assembly allows for easier access the bottom of bagger.



WARNING!

Always remove air and electrical power from the MAX Pro 18™ prior to performing any service on the machine.



WARNING!

Never make adjustments while machine is ON or operating as this may cause damage to the machine and could result in severe bodily injury or even death.

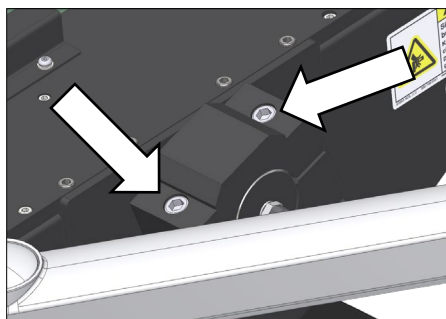
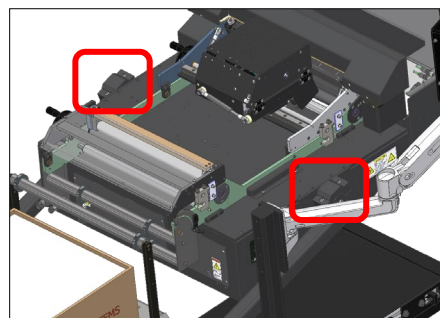
NOTE: Make sure the cables and hoses are not binding and are free from obstructions when Head Assembly is being rotated.

1. Loosen the Rotating Clamp Screws.
2. Pivot the machine to the desired angle.
3. Tighten the Rotating Clamp Screws.



WARNING!

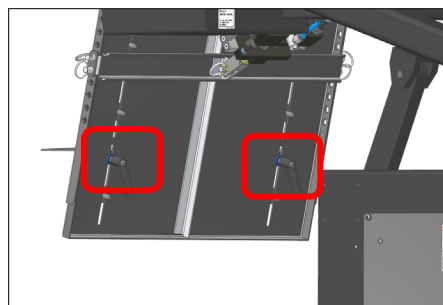
Machine Head must be held in place when loosening rotations adjustment bolts. Head may rotate when bolts are loosened and could cause damage to the machine and/or bodily injury.



LOAD SHELF

The Load Shelf can be moved up or down to accommodate different sized bags.

1. Loosen the Locking Handles on back of Load Plate.
2. Move Load Shelf to desired location.
3. Tighten the Locking Handles.



LOAD PLATE

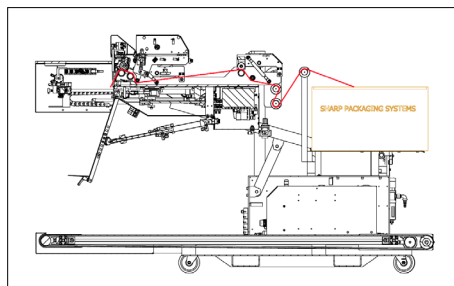
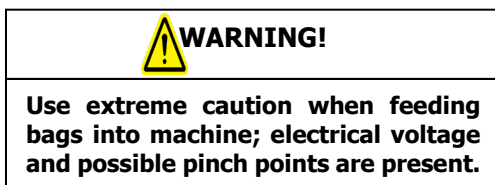
The Load Plate can also be moved up or down to accommodate longer bags.

1. Loosen the Load Shelf Locking Handles.
2. Remove the Ring Pins, move plate to desired location and replace pins.
3. Tighten Locking Handles.



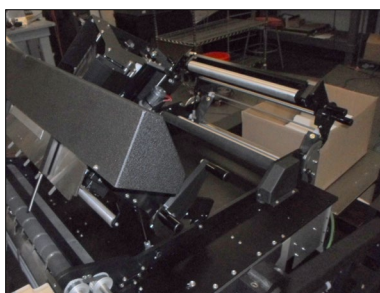
3.3 Loading Bag Film

A decal showing the film threading path through the machine is located on the Frame Cover.

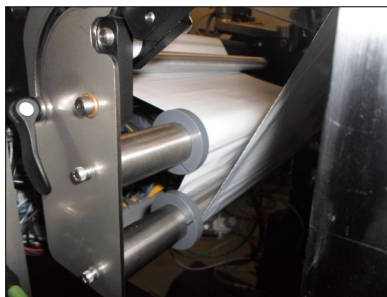


NOTE: At this point, in most cases, you would center the bags to the Drive Roller. Place box of bags behind the bagger so the perforation of the first bag opens toward you when standing behind box.

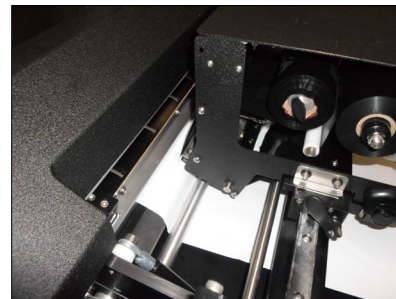
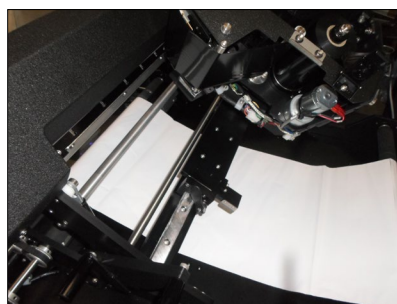
1. Raise the Cradle, Printhead Cradle, and Unwind Cradle by rotating the Latches and open the Cradles.



2. While standing at the right side of the machine, feed film over Drag Tube of Box Tray.
3. Then under-over Unwind Drag Tubes, then under Idler Roller, finally over the Unwind Drive Roller. Close Unwind Cradle Latch. Position Weight Straps over Box Tray Drag Tube.



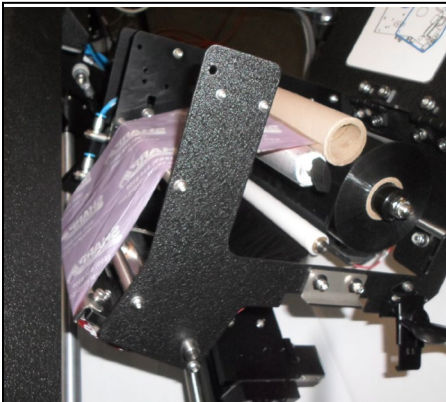
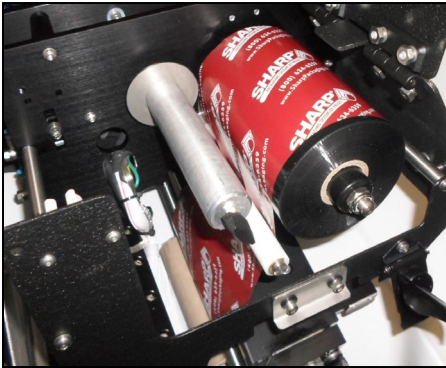
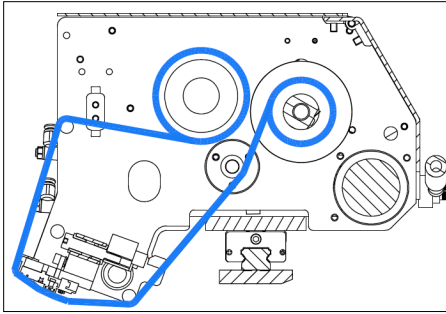
4. Pull the film Under the Printer Carriage until edge drapes over the Platen and Drive Rollers and down past the Front Finger Plate.



5. Lower and lock the Drive Roller Cradle Latch.

3.4 Loading Ribbon

A decal showing the ribbon threading path is located on the inside of Carriage Cover.



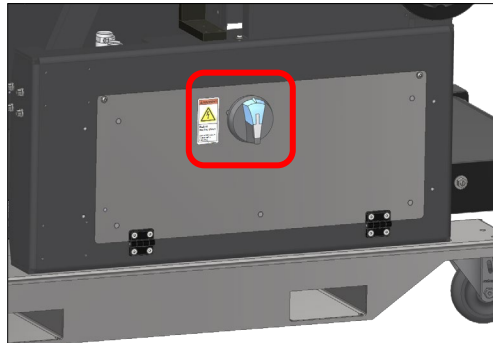
1. Raise the Carriage Cradle and Open Carriage Cover.
2. Slide empty spool and used ribbon off of hubs.
3. Insert cardboard tube into carriage, let hang loose.
4. Place a new roll of ribbon onto the Ribbon Unwind hub.
5. Thread the ribbon under Ribbon Roller Sleeve, under Return Ribbon Shaft, around Printhead, then up and over Ribbon Return Shaft to Ribbon Rewind Hub.
6. Place empty cardboard roll onto Ribbon Rewind Hub.
7. Turn knob on Take-Up Spool counter-clockwise to ensure ribbon is tight.
8. Close the Printhead Cradle Cover.
9. Lower and lock the Carriage Cradle.

3.5 Operation

Before attempting to operate the machine, read all information under Equipment Safety Features, page 1-2 and Controls, page 3-1.

Load film material as illustrated in Web Threading Diagram on machine. See *Loading Bag Film*, page 2-5.

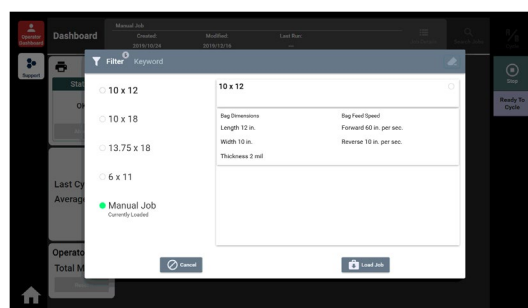
1. Make sure machine is plugged into the properly grounded outlet. See *Power Connection*, page 2-2. and connected to clean dry air regulated to 80 psi. See *Air Pressure Regulator Adjustment*, page 2-3.
2. Release the E-Stop Butt on on bagger. Release E-Stop Buttons on any connected conveyors, if applicable.



3. Turn Main Power Switch to ON position.
4. Components on the Un-switched circuit will turn ON.
5. The PC will start to boot automatically. The HMI program will auto-load.
6. Push the green Power Pushbutton, this will turn on the entire bagger.

NOTE: The machine will display several faults and warnings when HMI program and Power Button have been pressed.

7. Press the Enable Bagger Button. This will establish communication and clear faults of Home Pressure Bar, Seal Flattener and Bag Feed.
8. The 'Seal Bar Not At Temperature' warning will remain until Seal Bar reaches loaded job temperature setting.
9. Press the 'Operator' button to open Operator Screen.
10. Press the 'Job Search' and select job to be loaded.
11. Press Load Job



12. Press Dual Palm Buttons or press Cycle on HMI Screen to feed bag.
13. Load product into bag.
14. Press Dual Palm Buttons or press Cycle on HMI Screen to seal bag and feed next one out.

NOTE: When HMI program is closed and Main Power Switch is turned OFF, the bagger cannot be turned back on until the UPS (Uninterruptible Power Supply) has cleared. This may take several minutes. This is completed when the red indicator light on HMI turns off.

NOTE: To stop the machine for any reason, press the Emergency Stop Button.

3.6 Cleaning

GENERAL CLEANING GUIDELINES

This machine requires regular, periodic cleaning to ensure reliable service. The Operator, with a minimum of training, can perform daily cleaning.

Regular cleaning is important for the proper operation and performance of the machine. During operation, there will be a normal build up of dirt, dust, and film residue on various parts of the machine.

Keep the areas directly adjacent to machine clean of debris as these can create safety hazards for the Operator and/or damage the machine.

No cleaning should be performed unless these safety precautions are thoroughly understood and are adhered to without exception.

 WARNING Disconnect electrical power cord AND air supply from the machine prior to performing any maintenance on machine. Unexpected machine startup can cause serious injury.	 WARNING Do not spray the electrical components of the machine with any liquid at any time. Liquids on electrical components can cause shorts, damaging the components and causing personal injury or death.
 WARNING Avoid hot surfaces. Do not service the machine until the heated surfaces have cooled after disconnecting power. Allow a minimum of one hour for the unit to cool down after electrical power has been disconnected.	 WARNING Do not attempt to clean the machine while it is running. Cleaning the machine while it is running can damage the machine and cause severe personal injury or death.

Inspect the machine to determine if there has been an accumulation of dust or other contamination. Clean if necessary.

- ALWAYS SHUT OFF & UNPLUG machine power cord AND dump air supply before cleaning or removing any guards.
- Never defeat any safety device or interlock the machine.
- DO NOT use steel wool on machine surfaces. Particles of steel wool may break off and cause rusting or contaminating lubricated surfaces.
- DO NOT allow wrenches, fittings or other metallic objects to lie on machine surfaces during operation.
- DO NOT use chlorine, ammonia, alkalis, acids, or cleaning solutions that will damage metallic machine surfaces, cause corrosion, or contaminate containers.

SEVERE DUTY APPLICATIONS

Some applications may require a more comprehensive maintenance procedure performed by a qualified Service Technician.

The applications, which may require the extraordinary maintenance, include, but are not limited to, extremely dusty or corrosive environments. Pregis recommends the use of a vacuum, compressed air or both to remove all foreign substances that may have accumulated on or inside the packaging machine.

It may be necessary to remove some or all of the guards and covers protecting the machine to access the areas in need of cleaning. Some disassembly of the sealer and film feed assemblies may also be necessary.

It is extremely important to follow all of the safety guidelines and warning detailed inside the Operator Manual before removing any guards or servicing the machine.

Cleaning / Maintenance Intervals

DAILY CLEANING / MAINTENANCE

- Inspect the Bag Edge Present Sensor. Clean as needed. See *Bag Edge Present Sensor Cleaning Procedure*, page 2-7.
- Inspect the Teflon® Tape on the Obstruction Sensing Jaw. Tape should be free from residue of film or ribbon. Replace as needed.
- Inspect all air lines and electrical wires for any sign of damage. Replace worn or damaged lines or wires.

WEEKLY CLEANING / MAINTENANCE

- Inspect the rubber Drive and Platen Rollers. Clean as needed. See *Drive and Platen Rollers Cleaning Procedure*, page 2-8.
- Verify the Driver Roller Assembly moves freely with power removed.
- Inspect the aluminum Pinch Roller. Clean as needed. See *Pinch Roller Cleaning Procedure*, page 2-8.
- Verify the Pinch Roller spins freely when latch is opened.
- Inspect the Seal Bar. Clean as needed. See *Seal Bar Cleaning Procedure*, page 2-9.
- Inspect the rubber Unwind Drive Roller. Clean as needed. See *Unwind Drive Roller Cleaning Procedure*, page 2-10.
- Verify the Unwind Driver Roller Assembly moves freely with power removed.
- Inspect the Unwind Pinch Roller. Clean as needed. See *Unwind Pinch Roller Cleaning Procedure*, page 2-10.
- Verify the Pinch Roller spins freely when latch is opened.
- Inspect the Teflon® Tape that covers the Pressure Bar Anvil Rubber and replace if worn or damaged.

MONTHLY CLEANING / MAINTENANCE

- All of Weekly maintenance.
- Inspect the Air Filter for debris and replace as necessary.
- Inspect all external wiring for loose connections and wear. Tighten any loose connections and replace any worn cables.

SEMI - ANNUAL CLEANING / MAINTENANCE

- All of Weekly and Monthly maintenance.
- Inspect the Linear Guide Bearings located on the Pressure Bar Guide Shafts for wear and replace as needed.
- Inspect the Linear Guide Bearings located on the Sealer Assembly Guide Shafts for wear. Replace as necessary.

ANNUAL CLEANING / MAINTENANCE

- All of Weekly, Monthly, and Semi-Annual maintenance.
- Inspect entire machine for loose hardware.
- Inspect all air lines for any sign of wear or damage. Replace any lines that appear worn or damaged.
- Inspect all wires and cables for any sign of wear, damage, or loose connections. Tighten any loose connections and replace anything that appears worn or damaged.
- Inspect all Drive Belts for wear and proper tension. Replace any belts that appear to be worn or damaged.

Cleaning

BAG EDGE PRESENT SENSOR

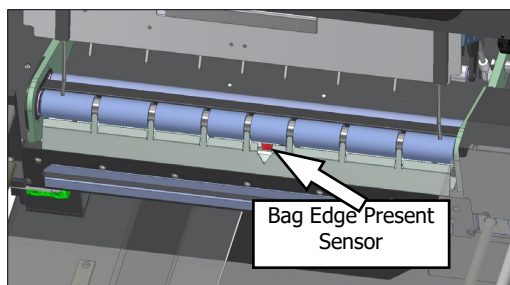
**WARNING**

DO NOT ATTEMPT TO CLEAN THE MACHINE WHILE IT IS RUNNING. CLEANING THE MACHINE WHILE IT IS RUNNING CAN DAMAGE THE MACHINE AND CAUSE SEVERE PERSONAL INJURY OR DEATH.

**WARNING!**

FOLLOW INDUSTRY STANDARDS FOR THE HANDLING AND USE OF CHEMICALS. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

1. Remove Power from bagger.
2. Clean with a cotton swab if dirty. Do not use any solvents or cleaning solutions on the sensing portions of eye.



PRINTHEAD

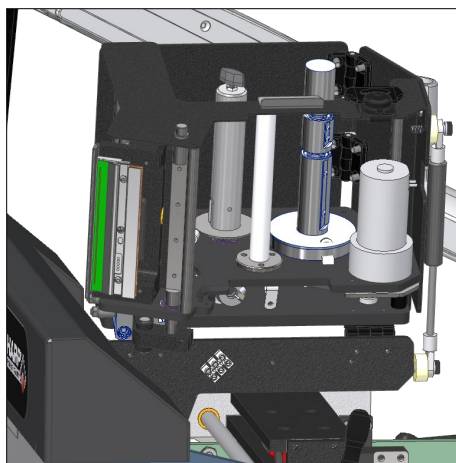
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**WARNING!**

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1. Turn the Printer Control Box OFF.
2. Open the Printer Carriage by releasing the Draw Latch on side of Printer Carriage.
3. Clean the Printhead thoroughly using a soft, lint-free cloth and 99.7% isopropyl alcohol.



4. Allow the solvent to evaporate.
5. Return power.

DRIVE & PLATEN ROLLERS

Regular cleaning of the Drive & Platen Rollers will keep the MaxPro Bagger running at optimum performance.

 WARNING
DISCONNECT ELECTRICAL POWER CORD AND AIR SUPPLY FROM THE MACHINE PRIOR TO PERFORMING ANY MAINTENANCE ON MACHINE. UNEXPECTED MACHINE STARTUP CAN CAUSE SERIOUS INJURY.

 WARNING
DO NOT ATTEMPT TO CLEAN THE MACHINE WHILE IT IS RUNNING. CLEANING THE MACHINE WHILE IT IS RUNNING CAN DAMAGE THE MACHINE AND CAUSE SEVERE PERSONAL INJURY OR DEATH.

 WARNING!
FOLLOW INDUSTRY STANDARDS FOR THE HANDLING AND USE OF CHEMICALS. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

1. Remove power and air from bagger.
2. Release the Cradle Latch.
3. Moisten a lint-free cloth with Isopropyl Alcohol and rub back and forth along Drive Roller.



4. Rotate roller and repeat until roller is clean.
5. Repeat for Platen Roller.
6. When rollers are clean, close the Cradle Latch.
7. Return power and air to bagger.

PINCH ROLLER

After Cleaning the Drive Roller, clean the Pinch Roller in the Cradle Latch Assembly.

1. Open the Cradle Latch.
2. Pinch Roller is behind Front Air Knife Cover but can be accessed from below cover when Cradle is opened.



3. Moisten a lint-free cloth with Isopropyl Alcohol and rub back and forth on the Pinch Roller.
4. Rotate roller and repeat until roller is clean.
5. When roller is clean, close the Cradle Latch.

SEAL BAR

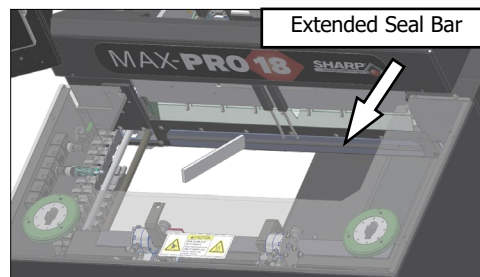
The Seal Bar needs extended to complete this procedure. In order to do this, the machine needs power and air. This will cause the Seal Bar to heat up.

NOTE: The machine must be at normal operating temperature for best results. Care must be taken to avoid scratching the surface of the Seal Bar. Use the supplied cleaning tool for best results. Remember to retract the Seal Bar when finished.

 CAUTION!
USE EXTREME CAUTION WHILE SERVICING THE MACHINE WHILE THE POWER IS APPLIED. UNEXPECTED MACHINE STARTUP CAN CAUSE SERIOUS INJURY!

 WARNING!
NEVER USE ANY METALLIC MATERIALS ON COATED SURFACES! THE SEAL BAR HAS A COATED SURFACE WHICH CAN ONLY BE CLEANED USING APPROVED MATERIALS.

1. Power up the machine according and apply air to regulator.
2. Release the E-Stop Button and press the Green Power Button.
3. Allow Seal Bar to reach set temperature.
4. Access the Service Screen from the Main Screen. The Service Screen is passcode protected. See Supervisor to gain access.
5. Press the Extend Seal Bar Button to change the state of the Seal Bar.



6. NEVER use any metallic utensils on the surface of Seal Bar. Use the Cleaning Wand (Sharp P/N 704173-01) to remove any residue accumulated on the Seal Bar.
7. Press the Seal Bar Retracted Button to retract the Seal Bar.
8. Return to Main Menu.

UNWIND DRIVE ROLLER

Regular cleaning of the Unwind Drive & Pinch Rollers will keep the MaxPro Bagger running at optimum performance.

**WARNING**

DISCONNECT ELECTRICAL POWER CORD AND AIR SUPPLY FROM THE MACHINE PRIOR TO PERFORMING ANY MAINTENANCE ON MACHINE. UNEXPECTED MACHINE STARTUP CAN CAUSE SERIOUS INJURY.

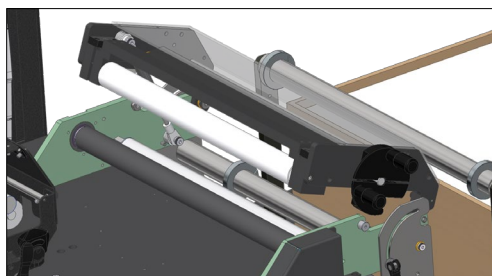
**WARNING**

DO NOT ATTEMPT TO CLEAN THE MACHINE WHILE IT IS RUNNING. CLEANING THE MACHINE WHILE IT IS RUNNING CAN DAMAGE THE MACHINE AND CAUSE SEVERE PERSONAL INJURY OR DEATH.

**WARNING!**

FOLLOW INDUSTRY STANDARDS FOR THE HANDLING AND USE OF CHEMICALS. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

1. Remove power and air from bagger.
2. Release the Unwind Cradle Latch.
3. Moisten a lint-free cloth with Isopropyl Alcohol and rub back and forth along Unwind Drive Roller.

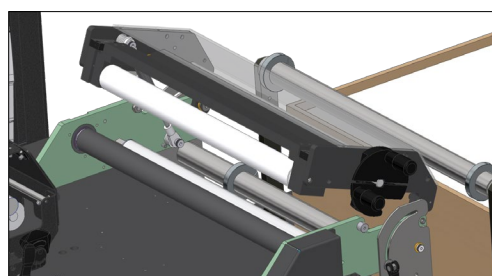


4. Rotate roller and repeat until roller is clean.

PINCH ROLLER

After Cleaning the Unwind Drive Roller, clean the Unwind Pinch Roller in the Latch Assembly.

1. Open the Cradle Latch.



2. Moisten a lint-free cloth with Isopropyl Alcohol and rub back and forth on the Pinch Roller.
3. Rotate roller and repeat until roller is clean.
4. When roller is clean, close the Cradle Latch.
5. Return Power to machine.

4. Fault & Alert Management

4.1 Bigger Faults

Fault	Cause	Possible Solution (S)
Pressure Bar Obstruction	The Pressure Bar attempted to close, but was blocked by an obstruction.	This is usually a part that did not drop past the Pressure Bar. Increase the Filler Drop Timer setting.
Reverse Fault	The bag film did not separate during reversing.	Check bag length in job
No Bag Covering The Eye	There is no film in the machine or the film is not being detected by the Bag Edge Photo-Eye.	Press the Job Button once and the bagger will jog the web for 10 seconds until the Photo-Eye is covered by film.
Pressure Bar Failed to Open	The commanded motion did not complete before the fault time expired.	See Cylinder Motion Fault.
Pressure Bar Failed to Close	The commanded motion did not complete before the fault time expired.	See Cylinder Motion Fault.
Seal Bar Temperature Sensor Failure	Seal Bar temperature sensor is reporting as missing or broken wire	A qualified service person should test the Thermocouple and its associated circuits.
Safe Power Off	E-Stop Button was pressed or E-Stop is released but the Green Power Button has not been pressed.	Release the E-Stop, press the Green Power Button, and the Bagger Enabled button.
E-Stop tripped or Power not Reset	E-Stop Button was pressed or E-Stop is released but the Green Power Button has not been pressed.	Release the E-Stop, press the Green Power Button, and the Bagger Enabled button.
Seal Bar Thermal Runaway - Not Heating	Seal Bar not heating up at all, or not as quickly as expected.	A qualified service person should test the Thermocouple and its associated circuits.
Seal Bar Thermal Runaway - Overshoot	Seal Bar not cooling as quickly as expected, or temperature is much higher than expected	A qualified service person should test the Thermocouple and its associated circuits.
Out Of Bags	The bagger detected that the web is broken or the bagger is out of bags.	Splice the broken web or replace the empty roll/box.
Opened Bag Was Removed	A bag was opened and verified as open by the Bag Open Sensor. The opened bag was physically removed or came off the Bag Opened Sensor before the Filler could finish delivering its product.	Check that the Funnel door is pinning the opened bag to the Pressure Bar. Verify that the bag is properly supported by the Load Shelf as it is being filled. It may be that as the bag is being filled, it shifts or slips off the shelf and pulls the bag away from the Funnel.

Fault	Cause	Possible Solution (S)
Bag Failed To Open	The Bag Opened Sensor failed to make as the Bag Open Fingers were attempting to open the bag.	This fault is usually the result of a problem with the Pressure Bar Pass-thru Adjustment or Bag Open Fingers Adjustment. Also check that the Sensor operates correctly.
Communication Fail - I/O Master to Controller	Communications between Controller and I/O master have been interrupted.	Verify cables are connected and tightened properly.
Communication Fail - I/O Master to I/O Node	Communications between I/O Master and expected I/O node have been interrupted	Verify cables are connected and tightened properly.
Master I/O Communication Failure		
Controller Disconnected	The controller is disconnected.	Connect the controller.
Palm Button Configuration Error	Machine is configured for a single palm button, but second palm button seen active.	Select Dual Palm Buttons in the Factory Setup\Cycle Button.
Package Eject Guard Removed	Package Eject Sensor failed to read guard.	1. Mount the Package Eject Guard. 2. Adjust Sensor.

4.2 Bagger / Printer Warnings

Fault	Cause	Possible Solution (S)
Seal Bar not at Temperature - Bagger inhibited from cycling	Seal Bar is not at the required temperature for sealing.	Bagger will not cycle until required temperature has been reached.
Low Pressure Air Timed Out	Low Pressure Air Timed Out	No intervention required by operator.
Recovery Mode Active	Attempting to open the bag again.	No action is required.
Recovery Mode Feeding New Bag	The bagger is feeding out a replacement bag. It could not open the original bag.	No action is required.
Bag Is Filled	A bag has been filled and sealed in Filler Mode.	No action is required.
Bag Level Low	Bag are getting low in box.	Prepare to replace bags soon.
Demo Mode Is Active	Bagger's demo mode is active.	Disable demo mode in Settings\Demo to turn off this warning.
Factory Test Mode Is Active	Bagger is running in Test Mode.	Turn Factory Test OFF in Factory Setup\Factory Test.
Machine Not Tested	Bagger life cycle count is not over 1,000 cycles.	Bagger has to run continuously for 1,000 cycles without a fault to clear.
Printer Not Ready	Waiting for printer to begin bagging.	Load label into printer.
Printer Ribbon Low	Printer ribbon is nearly at minimum usage.	Prepare to replace ribbon.
Waiting For Printer	Waiting for the printer to print before finishing the bagging cycle.	Load label into printer.
Printer Ribbon	Ribbon not moving during print	Verify ribbon is installed correctly.

4.3 Printer Faults

All printer functions are internally monitored. When a problem (Fault) or a potential problem (Warning) is detected, a corresponding message will appear in the display. Fault messages receive the highest display priority. If more than one fault is detected the display will cycle between messages.

NOTE: To return to normal operation following a fault, the fault must be corrected and then press the 'Reset' key from Service Screen\Printer must be pressed to clear the condition.

Display Message	Description	Possible Solution (s)
Ribbon Out	In thermal transfer mode: • Ribbon is not loaded • Ribbon is loaded incorrectly • The ribbon sensor is not detecting ribbon.	Load ribbon correctly. See Load Printer Ribbon on page 2-4.
Head Identification Failed	Printhead is not a Zebra™ Certified Product.	Install a genuine Zebra™ printhead.
Head Element Out	A printhead element is no longer working.	If the location of the failed element affects printing, replace the printhead.
Replace Printhead	The printhead is nearing the end of its life and should be replaced.	Replace the printhead.
Head Maintenance Needed	The printhead needs to be cleaned.	Clean the printhead. See Cleaning the Printhead on page 2-7.
Head Under Temp / Head Thermistor Fault The printer shows one of these messages or cycles between them.	The printhead Data or Power Cable are not properly connected.	Connect cables.
	The printhead has a faulty Thermistor.	Replace the printhead.
Out of Memory Storing XXX	There is not enough memory to perform the function specified.	Free up some of the printer's memory by adjusting the label format or Printer parameters. One way to free up memory is to adjust the print width to the actual width of the label instead of leaving the print width set to the default. Ensure that the data is not directed to a device that is not installed or is unavailable.

4.4 Printer Troubleshooting

Barcode Does Not Scan		
Issue	Possible Cause	Possible Solution (s)
The barcode printed on label does not scan.	The barcode is not within specifications because the printer is set at an incorrect darkness level.	1. Print a test label. 2. If necessary, manually adjust the darkness or print speed settings.
	There is not enough blank space around the barcode.	Leave at least 1/8 in. (3.2mm) between the barcode and other printed areas on the label and between the barcode and the edge of the label.
Poor Print Quality		
Issue	Possible Cause	Possible Solution (s)
Smudge marks on labels	The Media or ribbon is not designed for high-speed operation.	Replace supplies with those recommended for high-speed operation.
Poor results with thick labels	The print line is not at an optimal position for your media.	Adjust the print line for thick media.
Print Consistently Too Light or Too Dark		
Issue	Possible Cause	Possible Solution (s)
Printing is too light or too dark over the entire label	The Printer is set at an incorrect darkness level.	For optimal print quality, set the darkness to the lowest possible setting for your application.
	Incorrect printhead pressure.	Set the printhead pressure to the minimum needed for good print quality.
Printing is too light or too dark on one side of the label	Uneven printhead pressure.	Set the printhead pressure to the minimum needed for good print quality.
General print quality issues	The printer is set at an incorrect print speed or darkness level. Keep in mind that the printer settings may be affected by the driver or software being used.	1. Clean the printhead and platen roller. 2. For optimal print quality, set the darkness to the lowest possible setting for your application. 3. Set the printhead pressure to the minimum needed for good print quality.

Angled Gray Lines on Blank Labels		
Issue	Possible Cause	Possible Solution (s)
Fine, angular gray lines on blank labels	Wrinkled ribbon.	Verify the ribbon is loaded properly, smooth out ribbon.
Missing Print		
Issue	Possible Cause	Possible Solution (s)
Long tracks of missing print on several labels	Print element damaged.	Call for service.
	Wrinkled ribbon.	Verify the ribbon is loaded properly, smooth out ribbon.

5. Appendix

Terms & Conditions

Pregis®

1. ACCEPTANCE AND TERMS AND CONDITIONS:

Seller may accept this Order and any amendments by signing the acceptance copy of the Order and returning it to Purchaser promptly. Even without such written acknowledgment, Seller's full or partial performance under this Order will constitute acceptance of these Terms. By acceptance of this Order, Seller agrees to be bound by, and to comply with all these Terms, which include any supplements to it, and all specifications and other documents referred to in this Order. These Terms apply to everything listed in this Order and constitute Purchaser's offer to Seller, which Purchaser may revoke at any time prior to Seller's acceptance. This Order is not an acceptance by Purchaser of any offer to sell, any quotation, or any proposal. Reference in this Order to any such offer to sell, quotation, or proposal will not constitute a modification of any of these Terms. Terms and conditions different from or in addition to these Terms, whether contained in any acknowledgment of this Order, or with delivery of any goods or services under this Order, or otherwise, will not be binding on Purchaser, whether or not they would materially alter this Order, and Purchaser hereby rejects them. These Terms may be modified only by a written document signed by duly authorized representatives of Purchaser and Seller.

2. DEFAULT:

Time is of the essence of this Order. Purchaser may by written notice of default to Seller (a) terminate all or any part of this Order if Seller fails to perform, or so fails to make progress as to endanger performance of this Order in accordance with its terms, and does not cure such failure within a period of ten (10) days (or such longer period as Purchaser may authorize in writing) after receipt of notice from Purchaser specifying such failure; and (b) procure, on such terms as it will deem appropriate, goods or services similar to those so terminated. Seller will continue performance of this Order to the extent not terminated and will be liable to Purchaser for any excess costs for such similar goods or services. As an alternate remedy, and in lieu of termination for default, Purchaser, at its sole discretion, may elect to extend the delivery schedule and/or waive other deficiencies in Seller's performance, in which case an equitable reduction in the Order price will be negotiated. If Seller for any reason anticipates difficulty in complying with the required delivery date, or in meeting any of the other requirements of this Order, Seller will promptly notify Purchaser in writing. If Seller does not comply with Purchaser's delivery schedule, Purchaser may require delivery by fastest way and charges resulting from the premium transportation must be fully prepaid and absorbed by Seller. The rights and remedies of Purchaser provided in this Section 2 will not be exclusive and are in addition to any other rights and remedies provided by the Uniform Commercial Code, by law, at equity or under this Order.

3. PRICE:

This Order must not be filled at a price higher than shown on the face of the Order. If no price is set forth on the front of the Order, the goods or services will be billed at the price last quoted or at the prevailing market price, whichever is lower, and, in any event, goods and services ordered under this Order will not be billed at a higher price than last quoted or charged without Purchaser's specific written authorization. Purchaser will be entitled at all times to set off any amount owed at any time by Seller or any of its affiliates to Purchaser or any of its affiliates against any amount payable at any time by Purchaser in connection with this Order. No extra charges of any kind will be allowed unless specifically agreed to in writing by the Purchaser. All applicable taxes arising out of transactions contemplated by the Order will be borne by Seller except as otherwise specified by the parties in writing. If Seller reduces its prices for such goods and/or services during the term of this Order, Seller shall correspondingly reduce the prices of goods and/or services sold thereafter to Purchaser under this Order.

4. INVOICES, PAYMENT, AND TAXES:

(a) Invoices shall be rendered on completion of services or delivery of goods and shall contain the Purchase Order Number, item number, description of goods or services, quantities, unit prices, date(s) rendered and total purchase price. Each invoice must refer to one, and only one, purchase order.

(b) Invoices for contingent workers must contain all of the above where applicable and include a copy of the AAMC's time tracking document for each contingent worker for the time period being billed.

(c) Payment shall be made on the terms of 2% 10 days, net 60 days from the date of invoice. Cash discount periods shall be computed from either the date of actual delivery of the goods or the date an acceptable invoice is received, whichever is later. All claims for money due or to become due from Purchaser shall be subject to deduction by Purchaser for any setoff or counterclaim arising out of this or any other of Purchaser's Orders with Seller.

5. PACKAGING:

All goods must be packaged in the manner specified by Purchaser and shipped in the manner and by the route and carrier designated by Purchaser. If Purchaser does not specify the manner in which the goods must be packaged, Seller shall package the goods so as to avoid any damage in transit. If Purchaser does not specify the manner of shipment, route, or carrier, Seller shall ship the goods at the lowest possible transportation rates, consistent with Seller's obligation to meet the delivery schedule set forth in this Order.

6. INSPECTION:

All goods and services will be subject to inspection and test by Purchaser at all times and places, including the period of manufacture and in any event prior to final acceptance. Final acceptance or rejection of the goods or services will be made as promptly as practical after delivery except as otherwise provided in this Order, but failure to inspect and accept or reject goods or services or failure to detect defects by inspection, will neither relieve Seller from responsibility for such goods or services as are not in accordance with this Order nor impose liabilities on Purchaser for them. Purchaser's payment for the goods shall not constitute its acceptance of the goods. Goods rejected and goods supplied in excess of quantities ordered may be returned to the Seller at Seller's expense. Payment, if any, made for any goods rejected hereunder shall be promptly refunded by Seller. Seller will provide and maintain an inspection and process control system acceptable to Purchaser covering the goods and services ordered. Records of all inspection work by Seller will be kept complete and available to Purchaser during the performance of this Order and for seven (7) years after Seller's completion of this Order. If any of the goods or services are found at any time to be defective in material or workmanship, or otherwise not in conformity with the requirements of this Order, including any applicable drawings and specifications, then Purchaser, in addition to such other rights and remedies it may have by contract or by law or equity, at its sole discretion may reject and return such goods at Seller's expense, require Seller to inspect the goods and remove nonconforming goods and/or require Seller to replace nonconforming goods or services with conforming goods or services. If Seller fails to make the necessary inspection, removal, and replacement in a time and manner satisfactory to Purchaser, Purchaser may at its option inspect and sort the goods; Seller will pay any related costs.

7. WARRANTIES:

Seller represents and warrants that (a) all goods and services are free of any claim of any nature by any third person and that Seller will convey clear title to Purchaser, (b) all services are performed in a manner acceptable in the industry and in accordance with generally accepted standards, are free from all defects, are fit for the particular purposes for which they are acquired, and are provided in strict accordance with the specifications or other requirements (including performance specifications) approved or adopted by Purchaser, (c) all goods sold will be of merchantable quality, free from all defects in design, workmanship and materials, and fit for the particular purposes for which they are purchased and that the goods and services are provided in strict accordance with the specifications, samples, drawings, designs or other requirements (including performance specifications) approved or adopted by Purchaser, (d) the prices for the goods or services sold to Purchaser under this Order are not less favorable than those currently extended to any other customer for the same or similar goods and/or services in equal or lesser quantities, and (e) Seller shall not act in any fashion or take any action that will render Purchaser liable for a violation of any applicable anti-bribery legislation (including without limitation, the U.S. Foreign

Corrupt Practices Act and the U.K. Bribery Act 2010), which prohibits the offering, giving, or promising to offer or give or receiving, directly or indirectly, money or anything of value to any third party to assist it, them or Purchaser in retaining or obtaining business or in procuring the goods or services. Purchaser's inspection, tests, acceptance, or use of the goods shall not affect Seller's obligations under these warranties. Seller shall replace or correct, at Purchaser's option and at Seller's cost, defects of any goods not conforming to these warranties. If Seller fails to correct defects in or replace nonconforming goods within ten (10) days from the date the Purchaser notifies Seller of the defect or defects, Purchaser may, on ten (10) days prior written notice to Seller, either (i) make such corrections or replace such goods and charge Seller for all costs incurred by Purchaser, or (ii) revoke its acceptance of the goods in which event Seller shall be obligated to refund the purchase price and make all necessary arrangements, at Seller's cost, for the return of the goods to Seller. All warranties of Seller herein or that are implied by law shall survive any inspection, delivery, acceptance, or payment by Purchaser. Any attempt by Seller to limit, disclaim, or restrict these warranties or any remedies of Purchaser, by acknowledgment or otherwise, in accepting or performing this Order, will be null, void, and ineffective without Purchaser's written consent.

8. INDEMNIFICATION:

Seller shall indemnify and hold Purchaser and its affiliates harmless and, on Purchaser's request, shall defend each of them from and against any or all third party claims, demands, litigation, or proceedings of whatever kind, whether based upon negligence, breach of express or implied warranty, strict liability, infringement of intellectual property rights, or any other theory, and from and against all direct, indirect, special, exemplary, incidental or consequential damages of every kind whatsoever, arising out of, by reason of, or in any way connected with the goods and/or services, the design, manner of preparation, manufacture, construction, completion, or delivery or non-delivery of any goods and/or services by Seller, any breach by Seller of any of its obligations hereunder, or any other act, omission or negligence of Seller or any of Seller's employees, workers, servants, agents, subcontractors, or suppliers. Seller shall, on request, pay or reimburse Purchaser or any other party entitled to indemnification hereunder for all costs and expenses, including attorneys' fees, as incurred by Purchaser or such other party in connection with any such claim, demand, litigation, proceeding, loss, or damage. In addition, for infringement claims, Seller will, at its own expense and at Purchaser's option, either procure for Purchaser the right to continue using the allegedly infringing item, replace it with a non-infringing equivalent, or remove it and refund the purchase price and the transportation and installation costs thereof.

9. LIMITATION OF LIABILITY:

PURCHASER'S AGGREGATE LIABILITY ARISING FROM OR RELATING TO THIS ORDER IS LIMITED TO THE AMOUNT PAID BY PURCHASER FOR THE GOODS AND/OR SERVICES. TO THE MAXIMUM EXTENT ALLOWABLE UNDER APPLICABLE LAW, PURCHASER SHALL NOT BE LIABLE UNDER THIS ORDER FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR PUNITIVE DAMAGES INCLUDING, WITHOUT LIMITATION, LOST REVENUES EVEN IF PURCHASER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

10. PURCHASER'S PROPERTY:

Tangible or intangible property of any nature furnished to Seller by Purchaser or specifically paid for in whole or in part by Purchaser, and any replacements or attachments, are the property of Purchaser and, unless otherwise agreed in writing by Purchaser, will be used by Seller solely to render services or provide goods to Purchaser. Seller will not substitute any property or take any action inconsistent with Purchaser's ownership of such property. While in Seller's custody or control such property will be held at Seller's risk, will be kept insured by Seller at its expense for its replacement cost with loss payable to Purchaser, and will be subject to removal at Purchaser's written request, in which event Seller will prepare such property for shipment and redelivery to Purchaser in the same condition as originally received by Seller, reasonable wear and tear excepted, all at Seller's expense.

11. CHANGES:

At all times Purchaser will have the right to make changes to this Order, including changes to drawings, designs, configurations, specifications, quantities, methods of shipment or packing and delivery schedules or location of delivery. If any such changes cause an increase or decrease in the cost of or the time required for the performance

of any work under this Order, an equitable adjustment will be made in the contract price or delivery schedule, or both, and this Order will be modified in writing accordingly. Nothing in this Section, including any disagreement with Purchaser as to any claimed adjustment, will excuse Seller from proceeding with this Order as changed. Any claim by the Seller for adjustment under this Section 11 must be in a detailed writing and delivered to Purchaser within five (5) days after the date Seller receives notification of change. Any change will be authorized only by a duly executed amendment to this Order. Information, such as technical information or guidance provided to Seller by representatives of Purchaser, will not be construed as a change within the meaning of this Section. If Seller considers that the conduct of any of Purchaser's employees has constituted a change under this Order, Seller will immediately notify Purchaser in writing, as to the nature of the change and any proposed adjustment, which will then be subject to this Section 11.

12. COMPLIANCE WITH LAWS:

Seller represents and warrants that it is in compliance with and all goods and/or services supplied hereunder have been produced or provided in compliance with the applicable provisions of all federal, state, or local laws or ordinances and all related lawful orders, rules, and regulations. Seller shall comply with any provisions, representations, or agreements or contractual clauses required to be included or incorporated by reference or operation of law in any Order. Seller shall be required to obtain and pay for any license, permit, inspection or listing by any public body or certification organization required in connection with the manufacture, performance, completion, or delivery of any good and/or service.

13. CONFIDENTIAL OR PROPRIETARY INFORMATION:

Notwithstanding any document marking to the contrary, any knowledge or information that the Seller has disclosed or may later disclose to Purchaser, and which in any way relates to the goods or services covered by this Order will not, unless otherwise specifically agreed to in writing by Purchaser, be deemed to be confidential or proprietary information, and will be acquired by Purchaser, free from any restrictions. Seller will not transmit to Purchaser any sensitive personal information, including, but not limited to, identified health information, financial information, social security numbers, biometrics or other personally identified or identifiable information of like sensitivity. Seller will keep confidential any technical, process, economic, or other information derived from drawings, specifications and other data furnished by Purchaser in connection with this Order (in whatever form or format) and will not divulge, export, or use, directly or indirectly, such information for the benefit of any other party without obtaining Purchaser's prior written consent. Except as required for the efficient performance of this Order, Seller will not use such information or make copies or permit copies to be made of such drawings, specifications, or other data without the prior written consent of Purchaser. If any reproduction is made with prior consent, this notice will be provided. Upon completion or termination of this Order, Seller will promptly return to Purchaser all materials incorporating any such information and any copies, except for one record copy. Seller agrees that no acknowledgment or other information concerning this Order and the goods or services provided will be made public by Seller without the prior written agreement of Purchaser.

14. WORK ON PURCHASER'S PREMISES:

If Seller's work under this Order requires Seller to be on the premises of Purchaser or at Purchaser's direction, Seller will take all necessary precautions to prevent any injury to persons or damage to property, including following any rules, procedures, or other requirements of Purchaser.

15. INSURANCE:

Seller will maintain Comprehensive General Liability (including Contractual Liability coverage insuring the liabilities assumed in these Terms), Automobile Liability and Employers' Liability insurance with limits as reasonably required by Purchaser, as well as appropriate Workers' Compensation insurance as will protect Seller from all claims under any applicable workers' compensation and occupational disease acts. At Purchaser's request, Seller will furnish to Purchaser a Certificate of Insurance completed by its insurance carrier(s) certifying that the required insurance coverage is in effect, with waiver of subrogation, naming Purchaser as an additional insured, and containing a

covenant that such coverage and will not be canceled or materially changed until ten (10) days after prior written notice has been delivered to the Purchaser.

16. TERMINATION:

Purchaser may terminate all or any part of this Order for convenience at any time by written notice to Seller. Upon such termination, Purchaser's liability will be limited to reasonable termination charges mutually agreed by Seller and Purchaser, provided that Seller must specify any proposed charges in writing within fifteen (15) days after termination. This Order shall terminate automatically, without notice, if Seller becomes insolvent or the subject of any proceeding under the laws relating to bankruptcy or the relief of debtors.

17. GOVERNMENT CONTRACTS:

If this Order bears a government contract number on the face of this Order, Seller shall comply with all pertinent provisions of said government contract and pertinent executive orders and directives to the extent that they apply to the subject matter of this Order and all such pertinent contract provisions, orders and directives are hereby incorporated by reference into this Order. A copy of the government contract's pertinent terms and conditions will be given to Seller on request.

18. MISCELLANEOUS:

(a) NON-ASSIGNMENT: Assignment of this Order or any interest in it or any payment due or to become due under it, without the written consent of the Purchaser, will be void. An assignment will be deemed to include not only a transfer of this Order or such interest or payment to another party but also a change in control of Seller, whether by transfer of stock or assets, merger, consolidation, or otherwise.

(b) TRANSPORTATION: All the prices are established as F.O.B. Seller and/or Origin Dock, Freight Prepaid, unless otherwise specifically provided on the front of this Order. Title and risk of loss shall not pass to Purchaser until delivery of the goods to the location designated on the face of this Order and acceptance by Purchaser. If Purchaser rightfully rejects the goods, receives a non-conforming tender, or revokes its acceptance, risk of loss and title shall be deemed to have remained with Seller. The responsibility for freight damaged merchandise will be assumed by Seller. No charges for unauthorized transportation will be allowed. Any unauthorized shipment, which will result in excess transportation charges, must be fully prepaid by the Seller. Seller will not declare any value on such materials shipped via United Parcel Service, Rail Express, Air Express, Air Freight or Parcel Post. Seller will release rail or truck shipments at the lowest released valuation permitted in the governing tariff or classification.

(c) ANTICIPATION OF DELIVERY SCHEDULE: Unless otherwise agreed in writing, Seller will not make material commitments or production arrangements in excess of the amount or in advance of the time necessary to meet Purchaser's delivery schedule. Goods shipped to Purchaser in advance of schedule may be returned to Seller at Seller's expense.

(d) SELLER'S INVENTORY: Purchaser will have no obligation to request quotations or place Orders with Seller, both of which will be in Purchaser's sole discretion. Purchaser acting in its sole discretion will determine the actual quantity of goods or services to be purchased. The quantity of goods or services, if any, specified in forecasts supplied by Purchaser from time to time, or otherwise, is an estimate only. Seller bears sole responsibility for managing Seller's raw material, work in process, and inventory, and Purchaser will have no liability with respect thereto (whether upon termination of this Order or otherwise) other than in connection with termination as provided in Section 16.

(e) FORCE MAJEURE: Purchaser may delay delivery and/or acceptance occasioned by causes beyond its control.

(f) REMEDIES: Each of the rights and remedies reserved to Purchaser in this Order shall be cumulative and additional to any other remedies provided in law or equity. No delay or failure by Purchaser in the exercise of any right or remedy shall affect any such right or remedy and no action taken or omitted by Purchaser shall be deemed to be a waiver of any such right or remedy.

(g) PUBLICITY: Seller will not use Purchaser's name or logo in publicity, advertising, or similar activity, except with Purchaser's prior written consent. Seller will not disclose the existence of this Order or any of its respective terms to any third party without Purchaser's prior written consent.

(h) **DOCUMENTATION:** It is agreed that all technical documentation and other literature necessary for the proper use of the goods or services will be provided to Purchaser with the goods or services, unless otherwise directed by Purchaser, and its cost is included in the price.

(i) **GOVERNING LAW:** This Order, these Terms, and all related transactions, will be interpreted under and governed by the laws of the United States of America.

(j) **DISPUTE RESOLUTION:** Disputes arising under this Agreement will be resolved by the parties through good faith negotiations in the ordinary course of business. Any dispute not so resolved will be submitted for binding arbitration, at the written request of either party, before an arbitrator. Selection of the arbitrator will be by mutual agreement of the parties. The amount and responsibility for payment of arbitration costs will be one of the issues decided by the arbitrator, whose decision will be in accordance with the terms and conditions of this Agreement. No damages excluded by or in excess of the damage limitations set forth in this Agreement shall be awarded. During any such arbitration, the parties will continue diligent performance of this Agreement. The arbitrator will render a written decision stating reasons therefore in reasonable detail within ninety (90) days after the respondent receives the Commencement Letter. The provisions of this section, and any award issued by an arbitrator, may be enforced by either party in any court of competent jurisdiction. Arbitration is the exclusive remedy for disputes arising under this Agreement; the parties hereby waive their rights to bring a lawsuit to resolve a dispute arising under this Agreement.

(k) **SURVIVAL:** Seller's obligations under Sections 6, 7, 8, 9, 10, 12, 13, and 18 (f), (i), (j), (k), (l), (o), and (q) will survive any termination of this Order.

(l) **WAIVER; MODIFICATION:** No claim or right arising out of a breach of this Order can be discharged in whole or in part by a waiver or renunciation of the claim or right unless supported by consideration and in a writing signed by the aggrieved party. The failure of Purchaser to enforce at any time or for any period of time any of the provisions hereof will not be construed to be a waiver of such provisions or of the right of Purchaser thereafter to enforce each and every such provision. This Order can be modified or rescinded only by a writing signed by authorized representatives from both parties.

(m) **NOTICES:** All notices, consents, waivers, and other communications required or permitted to be given pursuant to this Order, shall be in writing and shall be deemed to have been delivered either (i) on the delivery date, if personally delivered, or if delivered by confirmed facsimile or e-mail, (ii) one (1) business day after delivery to any national overnight courier directing delivery on the next business day, receipt requested, or (iii) three (3) business days after deposit in the United States mail, registered or certified mail, return receipt requested, with adequate postage affixed thereto.

(n) **SEVERABILITY:** If any provision of this Order shall be held or deemed to be or shall, in fact, be illegal, inoperative or unenforceable, this provision shall not affect any other provision or provisions contained in this Order.

(o) **PARAGRAPH TITLES:** The paragraph titles are solely for convenience of reference and shall not affect the meaning or construction of any provision of this Order.

(p) **ENTIRE AGREEMENT:** Provided that there is no written agreement, duly executed by both parties, applying to the transaction, this Order, with such documents as are expressly incorporated by reference, is intended by the parties as a final expression of their agreement with respect to such terms as are included in it, and is intended also as a complete and exclusive statement of the terms of their agreement. No course of prior dealings between the parties and no usage of the trade will be relevant to determine the meaning of this agreement even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity for objection.

Airborne Noise Emissions**Test procedure:**

1) All measurements were taken of the machine at locations indicated on the attached drawing number:

a) Machine under test location? Engineering test lab.

2) Meter position was per the Machinery Directive 2006/42/EC.

Where workstations are undefined or cannot be defined, sound pressure levels must be measured at a distance of 1 meter from the surface of the machinery and at a height of 1.6 meters from the floor or access platform. The position and value of the maximum sound pressure must be indicated. (See table below)

3) The meter was set on the “A” - weighting scale, fast response setting. The meter was not calibrated.

Equipment under Test: 1153 SX Bagger

Test equipment: EXTECH 407735

Location	dB (A) Measured	Machine Speed
Front	74	40 bags per minute
Right side	74	40 bags per minute
Back	76	40 bags per minute
Left side	75	40 bags per minute
Ambient	36	

Peak C - weighted instantaneous sound pressure was not taken.

Tested by: DCSI

Date: 9/25/2013