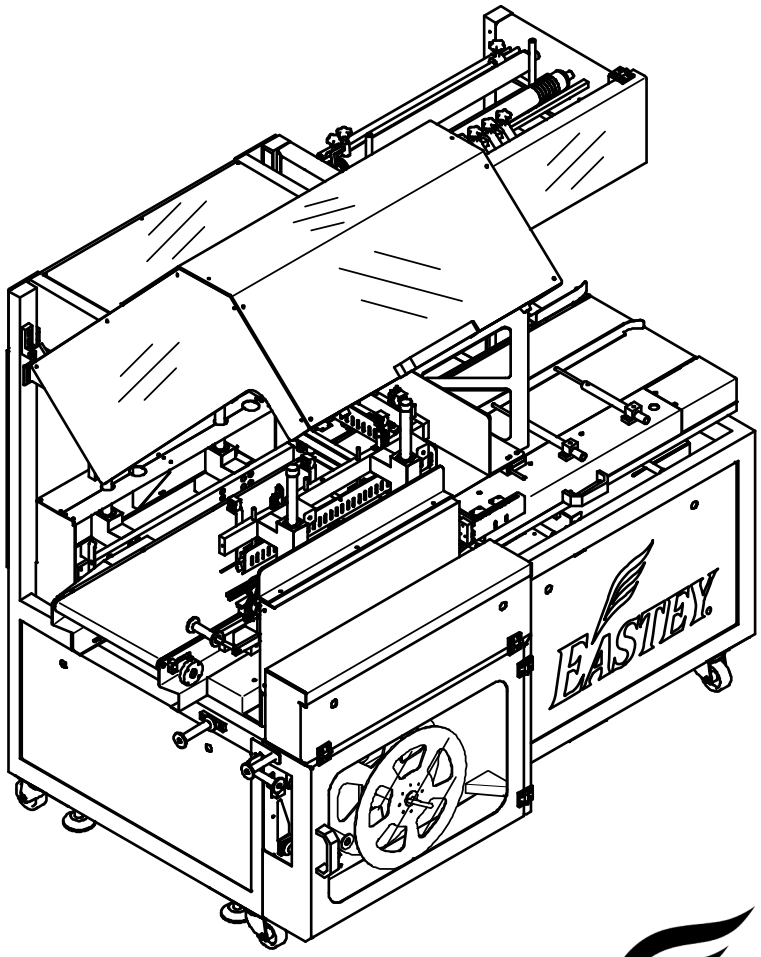
VSA

VSA1825-TKV1

Value Series
Auto L-Sealer

User Guide



EASTEY®

VSA VSA1825-TKV1

Value Series
Auto L-Sealer VSA1825-TKV1

User Guide

This User Guide is also available in digital form at:
Eastey.com/Support/User-Guides-Drawings

Check periodically for the most current revision.

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Contents

We Help Companies Deliver Products to the World

Thank you for choosing the Eastey Value Series Auto L-Sealer for your packaging needs. Eastey is part of Engage Technologies, an ISO 9001-2015 certified company that has steadily built a solid reputation for quality since 1979. Engage is known for providing rugged, durable, reliable packaging equipment to help companies deliver their products to the world.

Each Engage Technologies company – Squid Ink, Eastey, and American Film & Machinery (AFM), focuses on a different part of the packaging section of the production line.

ENGAGE *technologies corporation*

Squid Ink (www.SquidInk.com)
Coding and marking equipment, inks, and fluids for product identification and traceability

Eastey (www.Eastey.com)
Automated shrink wrapping and bundling, automated case sealing, case erecting and product handling

AFM (www.AFMSleeves.com)
Automated shrink sleeve labeling equipment, tamper-evident banding equipment, shrink tunnels and shrink sleeve consumables

When you purchase your packaging equipment from the Engage Technologies family of companies, you can feel confident that you have a machine that is first in quality and built to last. Thank you for choosing us for your packaging needs.

Eastey User Guides are available online

User Guides for the full line of standard machines for taping and material handling and bundling and shrink wrapping are available online from the Eastey Support Website in electronic format for web browsers and e-readers. Go to Eastey.com/Support/User-Guides-Drawings to see available User Guides, or scan the QR Code at right using the camera app on your mobile device to see available user guides.

Safety

Read this user guide carefully and make it available to everyone connected with the supervision, maintenance, or operation of this machine. Additional copies are available on request (Eastey.com/contact-us).

The development of a good safety program that is rigidly enforced is absolutely imperative when involved in the operation of industrial equipment. Our machinery is well designed and includes extremely important safety features. Proper installation, safe operation, and regular maintenance and upkeep are of far greater importance than our design. Only properly trained individuals following rigidly enforced safety rules, as recommended by ANSI and OSHA should be allowed to operate these machines.

Lockout / Tagout

Lockout/tagout procedures are safety-related practices developed, documented, and implemented by your company. Lockout/tagout procedures require safely shutting down and disabling the energy input to the machine and any connected equipment that could result in injury or equipment damage if accidental startup were to occur during inspection, maintenance, adjustment, or repairs. Part of disabling the energy input typically involves applying physical lock(s) to the energy input(s) so that the system cannot be accidentally restarted. Typical energy inputs include electrical, air, fluid, hydraulic, gravity, heat, or steam.

Your company must have lockout/tagout procedures in place for this machine before use. To prevent injury or equipment damage due to accidental startup, all inspection, maintenance, adjustments, or repairs to the machine must be governed by your company's lockout/tagout procedures and OSHA requirements and best practices.

WARNING: Failure to follow lockout/tagout practices can result in serious injury and/or equipment damage and may void the warranty

Note: OSHA provides information on lockout/tagout best practices consistent with Title 29, Code of Federal Regulations (CFR), Part 1910.147 and 1910.333, as a basis for companies to develop their own lockout/tagout procedures.

Be very careful when operating, adjusting, or servicing this equipment. If in doubt, stop and obtain qualified help before proceeding.

Lockout/Tagout on the Eastey VSA Value Series Automatic L-Sealer

The Eastey VSA Value Series Automatic L-Sealer uses electrical and air pressure for energy input. Power down the system prior to lockout/tagout, (for the accompanying Eastey VST1710 Value Series Visible Shrink Tunnel, refer to special notes about the tunnel shutdown sequence in the tunnel User Guide) turn the Power switch to the Off position and allow hot surfaces to cool. Disconnect power from electrical energy input and follow the lockout/tagout rules and procedures developed by your company.

Be sure to follow your company's lockout/tagout procedures for the Eastey VSA Value Series Auto L-Sealer and all equipment connected to it, for example, shrink tunnels or heat tunnels or any shrinking or coding/marking or printing equipment, in accordance with your company's lockout/tagout procedures.

Note: Lockout mechanism(s), padlock(s), and identification tag(s) are the responsibility of your company in accordance with your company's lockout/tagout rules and procedures, and are not provided by Eastey.

Note: For Eastey tunnels, refer to special notes about the tunnel shutdown sequence in the tunnel User Guide to allow proper cooldown of belts and internal components before powering the tunnel down.

Safety Precautions

Before installing, operating or servicing this equipment, please read the following precautions carefully:

- Always disconnect electrical power before attempting maintenance for any electrical or moving parts, following the Lockout/Tagout best practices as governed by your company and OSHA. Do not place hands, head, or any part of the body inside the confines of the machine unless the mechanism is securely fastened and the electrical supply is shut off and all sources of energy have been neutralized and locked out/tagged out in accordance with your company's lockout/tagout best practices.
- Do not tamper with electrical wiring. Use only the specified power-supply cable. Use only licensed electricians to check or repair electrical wiring. If cables or tape containing electrical wires appear worn or cracked, replace them immediately with new.
- In order to prevent damage to the machinery or injury to personnel, do not increase the factory settings on either the electrical or mechanical overload safety devices. Do not operate a machine if such modifications have been made.
- Never attempt to provide service or to clear a jam while the machine is running. Always stop the machine and shut off power before attempting to clear a jam or provide service.
- Keep hands away from moving conveyors, rubber rollers, pin perforators, and all moving parts. Conveyor belts that have become worn or frayed can be hazardous and should be replaced promptly.
- Never operate this or any moving equipment without all covers and guards in place. The internal mechanism of most packaging machinery contains numerous shear, pinch, and in-running nip points, many of which are capable of causing severe injury and permanent disfiguration.
- To minimize the potential for personal injury, always be sure that the machine operators and others working on the machinery are properly trained in the correct

usage of the equipment and properly instructed regarding the safety procedures for operation.

- Heat sealing arms and jaws on packaging machinery can become very hot after a period of use. Keep hands away while in operation and use caution if the machine has been running recently.
- Do not make any modifications to either the electrical circuitry or the mechanical assemblies of this machinery. Such modifications may introduce hazards that would not otherwise be associated with this machinery. Eastey will not be responsible for any consequences resulting from such unauthorized modification. Do not operate a machine if any modification has been made.
- This equipment is designed for indoor operation in a typical clean, dry factory environment. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.
- The use of certain types of plastic films in sealing and/or shrink-wrapping equipment may result in the release of hazardous fumes due to degradation of the film at high temperatures. Before using any plastic film in this equipment, the manufacturer or supplier of the film should be contacted for specific information concerning the potential release of hazardous fumes. Adequate ventilation should be provided at all times.
- Keep combustible materials away from this equipment. The equipment may be a source of ignition.
- Do not wear loose clothing such as ties, scarves, jewelry, etc. Long hair should be pulled back and/or covered while operating this machine.

Explanation of Symbols

Caution sign or Safety Alert symbol. Indicates caution, be alert, Your safety is involved. Knowledge of safe operation is required. Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment or nearby property.

Electrical hazard. Indicates caution, electrical shock hazard. Allow only a trained electrician to open the door or cover of the electrical panel or box. Shut off electrical power before attempting to open or work on the electrical box, junction boxes or other electrical components of the unit.

Ground symbol. Indicates ground. Use Class-3 (lower than 1000) cable to ground to earth. Incomplete grounding may lead to electrical shock.

Caution! Hot surface. The surface indicated may become very hot during normal operation. Keep fingers, hands, and exposed skin away from hot surfaces to avoid burns. Allow hot surfaces to cool to ambient room temperature before performing service.

Caution! Moving parts. Moving parts can crush fingers or hand. Keep hands and fingers away from moving parts in area indicated to avoid injury.

Caution! Pinch point entanglement. Pinch point hazard exists in area indicated. Shut down the machine before performing maintenance, repair, or adjustment.

Caution! blade. Hazard exists for cutting fingers or hand. Keep hands and fingers away from sharp blades in area indicated to avoid injury.

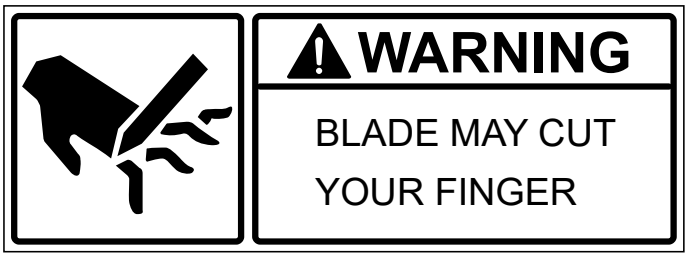
Moisture hazard. Keep Equipment dry. This equipment is designed for indoor operation in a typical clean, dry factory environment, protected from rain and moisture. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.

Eye protection. Wear eye protection. Use protective equipment whenever circumstances require or when required by regulation or law. Wear safety glasses when operating or servicing this machine.

Refer to this User Guide for important safety information and operating instructions to set up, operate, adjust, and maintain this Automatic Case Erector.

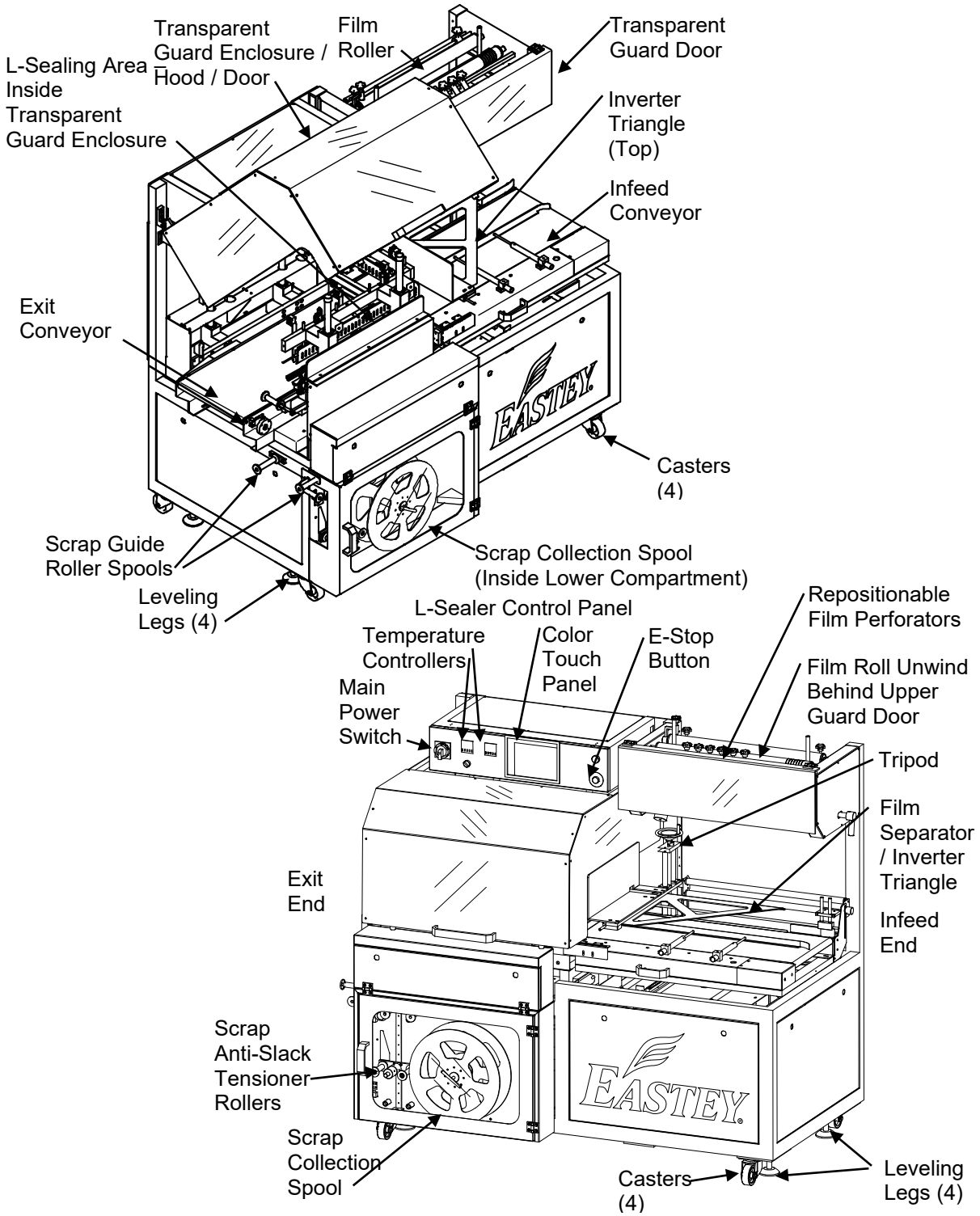
Warning symbol. Indicates a hazardous situation which, if not avoided could result in death or serious injury.
A warning indicates a situation or condition potentially more severe than indicated by a caution message but not imminent as a danger message.

This symbol is associated with warnings for conditions as shown below.



Introduction

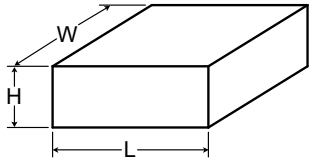
VSA1825-TKV1 Auto L-Sealer Overview



Specifications

Model Number	Seal Dimensions		Machine Dimensions			Standard Power			Net	Shipping
	Front (F)	Side (S)	Width (A)	Height (B)	Length (C)	Volts	Amps	Phase	Weight	Weight
VSA1825-TKV1	18 in. 45.7 cm	25 in. 63.5 cm	57.1 in. 145 cm	66.2 in. 168 cm	75.2 in. 191 cm	220	12	1	1390 lbs. 630 kg.	1490 lbs. 676 kg

Film Width	Product Size Minimum			Product Size Maximum		
	Length	Width	Height	Length	Width	Height
24.0 in. 610 mm	2.5 in. 64 mm	2.5 in. 64 mm	0.2 in. 5 mm	22.0 in. 559 mm	16.0 in. 406 mm	7.0 in. 178 mm



Explanation of Model Numbers

- VSA = Value Series Automatic Eastey L-sealer.
- 18 — First two digits indicate length of sidebar or nominal maximum length of side seal in inches: 18 inches.
- 25 — Remaining two digits indicate length of front bar or nominal maximum length of front seal in inches: 25 inches.
- T = Takeaway conveyor — Value Series Auto L-Sealers are typically equipped with a takeaway conveyor.
- K = Knife — Indicates hot knife seal bar. The hot knife seal bar is standard.
- V1 = Voltage and Phase. V1 = 220 VAC single phase. The VSA1825-TKV1 is configured for 220 VAC, single phase standard.

Voltage and Phase Designator Meaning

Voltage / Phase Designator	Volts	Amps	Phase
V1	220	12	1

Air Requirements*

Air Pressure Required (PSI)	Air Flow Capacity	Fitting Size
60 – 80 PSI	3.5 CFM	¼” NPT

* Auto L-Sealer requires a clean, dry supply of air pressure that must be free of oil, moisture, and other contaminants. Any of these kind of contaminants, if found in the air supply, will void the warranty.

Standard features

- Designed to seal most center-folded polyolefin (POF) shrink films
  - Not compatible with PVC films — Use of PVC film with this machine will void warranty
- Multiple adjustable pin perforators provide air evacuation
- Infeed and outfeed conveyors run at 100 f/min (30.5 m/min)

- Motorized seal height adjustment to center seal line for various product sizes
- Seal head equipped with pneumatic air cylinder for automatic sealing
- PTFE Hot knife seal bar with vertical cutting motion for consistent and clean seal
- Consistent pressure across seal bar
- Automatic cycle timing with adjustable dwell time
- 7” color touchscreen controller for operator interface controls and system setup
- Film tracking wheels keep film in place, scrap film collection spool included
- Film inverter, standard, reduces machine floor space requirements
- Heavy duty casters and leveling pads for transportation within plant
- Easy to use design requires minimal training and maintenance
- 18”W × 25”L seal area for packages up to 7” tall
- Maximum film width up to 24"
- Maximum film roll O.D. up to 12"
- 60 – 80 PSI, ¼” NPT fitting
- Scrap film collection spool conveniently winds unused scrap film as product is sealed
- Exit conveyor provides a smooth transition from the sealer to the shrink tunnel
- CE Certification

Machine Serial Number

The machine serial number can be found on the identification label on the Auto L-Sealer base frame near the air-in connection and air inlet filter and regulator.

The identification label displays the Model designator, Serial Number, and Electrical Power Rating requirements.

Record the Serial Number for future reference.

Note pertinent information on the serial plate, such as the machine air and electrical power requirements for the Auto L-Sealer.

Typical Applications

VSA1825-TKV1 Value Series Auto L-Sealer

Eastey's VSA1825 Auto L-Sealer is designed and built to give you the performance needed for positive sealing of polyolefin film. Products are automatically fed into the VSA1825 where a sensor detects the product as it moves into the sealing area. Once in position, two hot knife seal bars at 90° simultaneously and automatically seal the film edges and trim off scrap to form a loose, sealed bag around the product.

Once sealed, the takeaway conveyor transfers the loosely sealed bag with enclosed product to a heat tunnel, such as the Eastey VST1709-59-LRV2, to shrink the film and provide a clean, finished product. The efficient automatic seal system allows users to seal between 30 – 35 products per minute, depending on the product size and application requirements.

Eastey's VSA1825 Value Series Auto L-Sealer is particularly suitable for packaged goods of moderate size and weight within machine specifications and is designed to provide quality performance sealing in a small footprint.

Do NOT use the Eastey VSA1825-TKV1 Value Series Auto L-Sealer for the following types of products:

- Explosive Products
- Flammable Products
- Hazardous Products
- Wet Products or Corrosives
- Products that are heavier or larger than allowed by the machine specifications

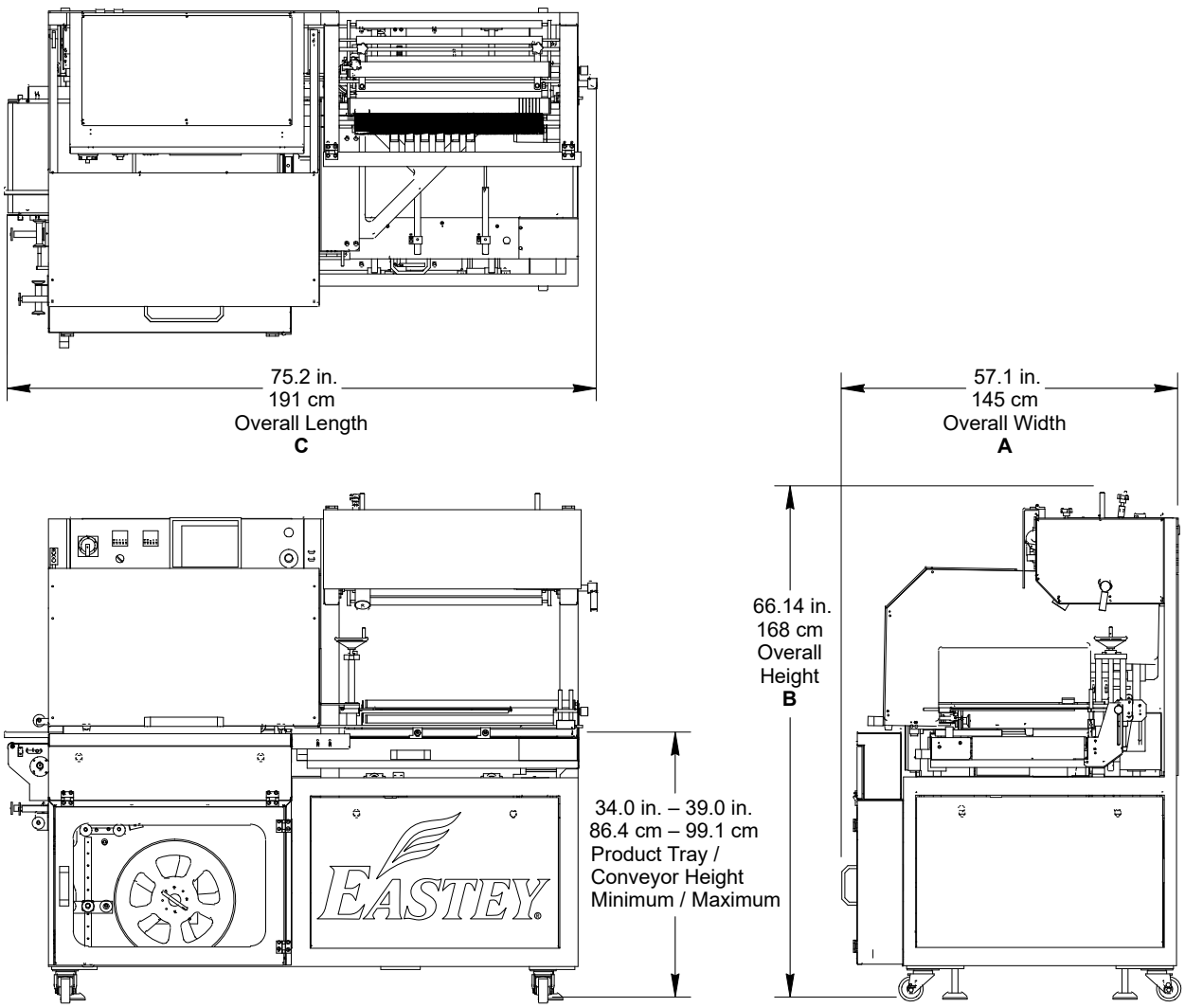
If small items or liquid or powder is to be shrink sealed, these kinds of products must first be packed in boxes, tanks, bags, or other packaging before L-sealing.

Do not operate the Eastey VSA1825-TKV1 Value Series Auto L-Sealer in any extremely wet or oily environment that may exceed operating specifications. This equipment is designed for indoor operation in a typical clean, dry, factory environment protected from rain and moisture.

Dimensions

See Machine Dimensions in Specifications table on page 14 for overall machine width, height, and length.

VSA1825



Unpacking

Thoroughly inspect the equipment and packaging immediately on arrival.

Carefully remove the outer protective shipping wrapper. Inspect the machine for any damage that may have occurred during transit. If goods are received short or in damaged condition, it is important that you notify the carrier's driver before they leave your company and insist on a notation of the loss or damage across the bill of lading. Otherwise no claim can be enforced against the transportation company. Please note that a copy of this document is attached to the outside of every crate.

If concealed loss or damage is discovered, notify your carrier at once and request, **insist**, on an inspection. This is absolutely necessary. A concealed damage report must be made within ten (10) days of delivery of shipment.

Unless you do this, the carrier will not entertain any claim for loss or damage. The agent will make an inspection and grant a concealed damage notation. If you give the transportation company a clear receipt for the goods that have been damaged or lost in transit, you do so at your own risk and expense.

All claims must be filled within **five** (**5**) months of the delivery date or the carrier will not accept them.

We are willing to assist you in every reasonable manner to help you collect claims for loss or damage. However, this willingness on Eastey's part does not make Eastey or its parent or related companies responsible for collections or claims or replacement of equipment damaged or lost in transit.

Loading and Unloading Instructions

- ☐ The machine is fully crated on pallets.
- ☐ Use a forklift with adequate capacity to lift the machine from the pallet. (Forklift extensions may be required to repack equipment.)

Installation

Lift the machine up and off of the shipping pallet.

CAUTION! The VSA series L-sealer is heavy and will require a forklift, floor crane, or several people to move safely off the shipping pallet. Use proper equipment when lifting the L-sealer and ensure it is secure and will not shift while being moved off the shipping pallet.

Place the sealer in the desired location with the required electrical power source available. (See power requirements for the specific model in the Specifications table.) Make sure the electrical wiring is adequate to provide the required voltage. If the voltage provided is too low, the equipment will not operate correctly.

Selecting the proper location is one of the most important considerations for initial setup. In general, the machine should be installed in a clean, dry, and well-lit space, and well-ventilated space and where fumes from sealing film will not be pulled into the ventilation system.

When selecting the location, take into consideration the following factors.

1. Adequate power supply nearby?
2. Adequate air supply (clean and dry) nearby?
3. Where is the sealer in relation to the power source?
4. Where is the sealer in relation to the tunnel and any conveyor(s) necessary to move the wrapped product? (Alignment with packaging line.)
5. Convenience for the operator.

If there is any doubt, get qualified assistance with your initial installation.

Location Requirements

When installing the L-sealer please be aware of the following considerations:

1. The surface on which it is located is flat and level.
2. Conveyor or packing table height.
3. Alignment with packaging line.

The Auto L-Sealer and accompanying shrink tunnel should be installed in a dry, well-lit and well-ventilated location, clean of dust, well away from any corrosive, flammable, or explosive materials, as it could be a source of ignition. Place the L-sealer and tunnel

well away from any interior entrances or exits, as cold exterior air could affect sealing or shrinking quality.

When the L-sealer is positioned in the operating location you will need access to:

1. Control panel switches: On/Off switch, dwell timer, conveyor timer.
2. Height and width adjustments.
3. Film unwinder.

All units are equipped with a takeaway conveyor to move sealed product out the exit of the L-sealer. Provision should be made for exiting packages. For example, a table or bin where packages that have been sealed will be placed until they can be picked up, or a conveyor that will move them to the tunnel.

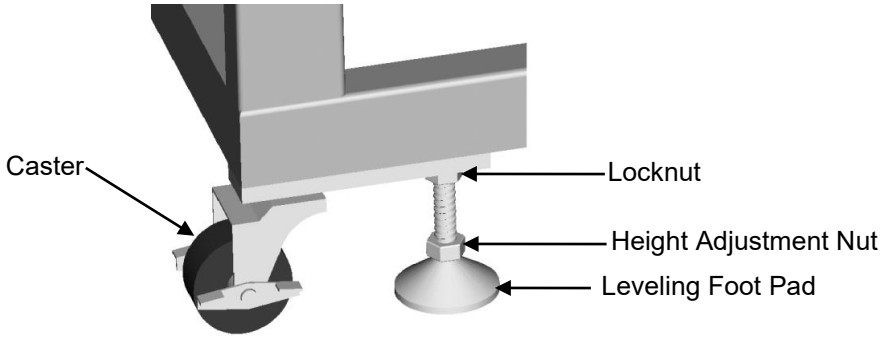
If the L-sealer is part of a longer packaging line, take into consideration the infeed conveyor and exit roller height in relation to adjacent machinery.

The machine should be placed on a flat, level floor so that it does not rock or move. We recommend that the leveling feet be used to level the machine.

Set up the L-sealer and move it to its location. The casters allow easy movement over smooth flat surfaces. If you need to lift the unit to move it, you will need to use a fork lift and may require fork extensions to move it to its location.

CAUTION! If the L-sealer must be lifted for moving, use proper equipment when lifting and moving it to ensure it is secure and will not shift.

When the Auto L-sealer has been moved to its location, block the wheels to prevent rolling while adjusting the leveling legs to raise and level the machine in its permanent location.

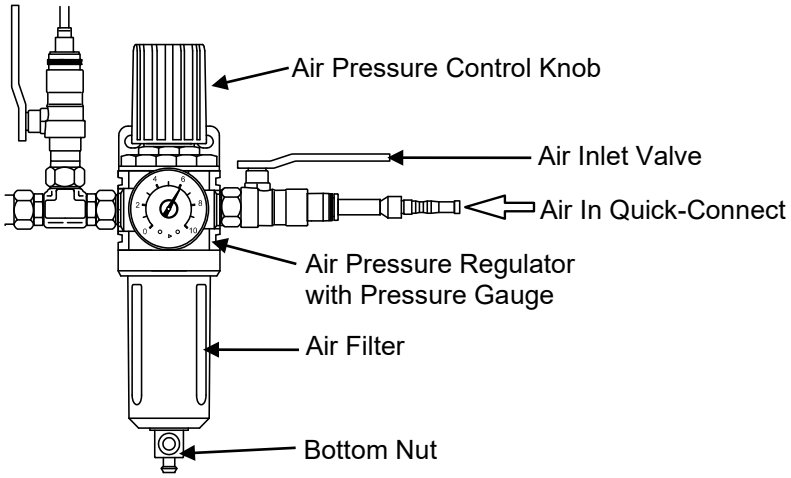


To adjust the height or to level the L-sealer, first loosen the locknut that secures the leg height. Turn the height adjustment nut clockwise to raise the corner of the L-sealer or turn the height adjustment nut counterclockwise to lower the corner. When the desired height is attained and the machine is level, retighten the locknut to secure the leveling foot height. Repeat for all four leveling feet so each leveling foot is extended

approximately equally to raise the machine to the desired height and the machine is level.

A power cord (with optional electrical plug) should be installed by a licensed electrician.

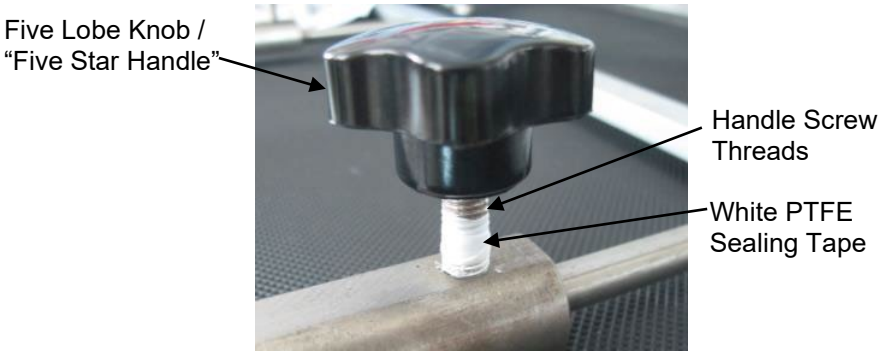
Connect the air line to the regulator. The Auto L-Sealer requires clean dry air supply of 60 – 80 PSI at 3.5 CFM. A ¼" NPT fitting is provided for air connection.



CAUTION! Before operating, ensure the following.

1. **All shipping ties are removed.**
2. **All personnel are clear of the equipment.**
3. **Electrician has stated that all electrical work is complete.**
4. **Adjust all controls according to the settings sheet.**

To prevent adjustment knobs from becoming lost in delivery, all five-lobed plastic knobs (sometimes called five-star handles) have been wrapped with PTFE sealing tape. The five-lobed plastic knobs are used in multiple locations of the L-sealer and generally in the film unwind area. These knobs are used to hold adjustment on the film roller rods and on the adjustable pin perforators. The knobs may be used without removing the sealing tape, or the sealing tape may be removed after installation, per the user's preference.



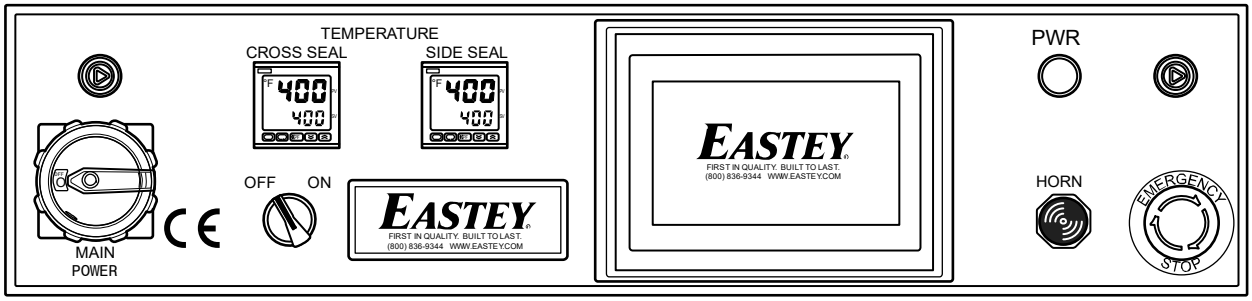
Refer to instructions in the Operation section for instructions to power up or shut down the machine.

Operation

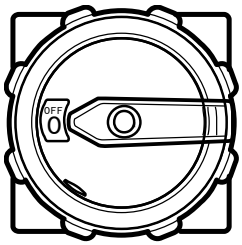
CAUTION! Only persons who have been trained in the operation of the automatic L-sealer should be allowed to operate the machine.

Controls for the L-Sealer are located in the Control Panel box above the sealing area.

Control Panel



Controls are arranged along the front side of the Control Panel. Controls shown above are listed and explained below.

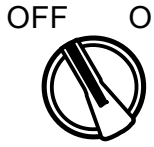


MAIN
POWER

Main Power Switch — Use this switch to turn main power to the automatic L-Sealer on or off. (0 is Off / 1 is On). When the power is on, the green power lamp (PWR) at the upper-right of the Control panel will illuminate green. The Main Power switch has a feature whereby it can be locked in the 0 Off position. Be sure to read and follow the lockout/tagout rules and procedures developed by your company for the Eastey VSA1825-TKV1 Value Series Auto L-Sealer and all equipment attached to it, for example, Eastey VST1710-59-LRV2 Value Series Shrink Tunnel.

CAUTION! When the power is turned on be aware of sealer hot surfaces, moving belts, perforator wheels, and rollers.

Power Lamp (PWR) — When the power lamp, located at the right of the control panel is illuminated with a green light, the machine is powered on and ready for operation. This lamp indicates that the Main Power switch at far left of the panel is turned to the On position and there is power to the machine.



Heating Switch (Off / On) — This switch provides power to the two temperature controllers (Side Seal and Cross Seal) and heating elements for each of the cutting and sealing knives.

E-Stop – In the event of an emergency, press down the large red mushroom shaped E-Stop button. This brings the system to a halt in a way to avoid damage or excessive film waste. In addition to the E-Stop on the Control Panel, there is also an E-Stop at the operator-side corner of the machine near the infeed end of the machine.

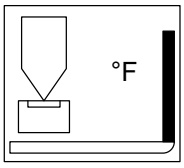
Pressing the E-Stop will stop automatic operation of the machine and set the machine to manual operation. Clear all conditions that required activation of the E-Stop before returning the machine to automatic operation.

HORN

Alarm – When an event occurs that interrupts production, the system will create loud beeping sounds at regular intervals, and this light will flash in synchronization with the beeping sounds. Touch the Reset button in the Operator's Touch Panel user interface to stop the alarm beeping.

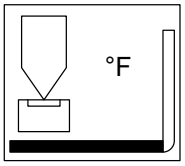
CROSS SEAL

Cross Seal — Temperature controller for the L-Sealer heat element that is aligned across or transverse to the machine direction. More specific information about setting the Cross Seal temperature controller is provided in pages that follow.



SIDE SEAL

Side Seal — Temperature controller for the L-Sealer heat element that is aligned with the machine direction More specific information about setting the Side Seal temperature controller is provided in pages that follow.



Operator's Panel — The operator's panel is a fully functional color touch screen. A technical name used for this is the Human Machine Interface (HMI). It displays current status information and displays buttons for configuring and controlling the system and obtaining system messages and status information. More detail about using the Operator's Panel is explained in the pages that follow.

Other Control Features

Film Unwinder — The film unwinder is inside the upper transparent enclosure located to the right of the Control Panel and above the product infeed conveyor and film separation/inversion area.

Pin Perforators — Pin perforators are located inside the same enclosure with the Film Unwind. Pin Perforators are synchronized with the film during normal operation. Small pins in the perforators create holes in the film to allow air to evacuate during shrinking. Pin perforators can be set to be active or inactivated individually so that the number of them in use can be adjusted for film size and air evacuation requirements.

Infeed Conveyor — The infeed conveyor is used facilitate insertion of the product between the bottom and top layers of film and transport the product into the seal area.

Width and Height Adjustment — The infeed conveyor is adjustable for width to achieve proper placement of the total width of the package, thereby allowing the product to be placed precisely in the seal area and film each time. Infeed film height adjustment allows the height of upper film inverter triangle to be changed for differing heights of product.

Film Inverter — Film as it is supplied on the roll is folded in half as rolled, so the roll length is actually half of the width of the film on the roll. As film comes off the film roll, it must be opened up so product can be placed between the two halves, bottom half and top half. Also, to conserve space, the film inverter redirects the path of unrolling film at a right angle, from cross-machine to machine-direction. It does this using a pair of triangular plates that turn the film inside-out as it unfolds the film for placing the product.

Operator's Touch Panel

As the machine starts up, information will display on the Operator's Touch Panel such as the current operating version and a graphical progress indicator as the system software is loaded. The Operator's Panel screen may appear blank momentarily and then eventually display the Eastey Welcome screen.

When the Operator's Panel displays the Eastey company name, touch the screen surface anywhere with your finger.

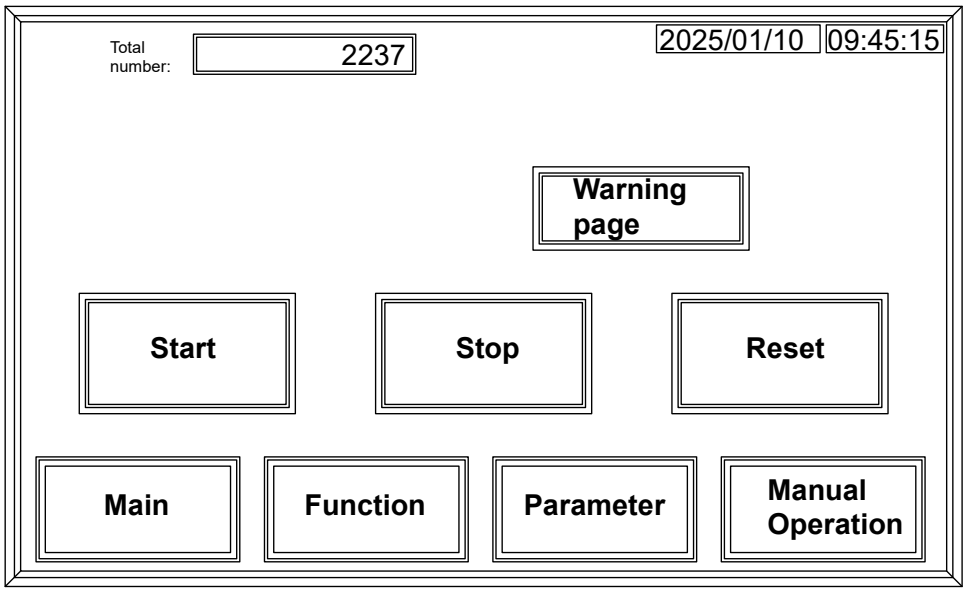
Note: **Screen sensitivity may be such that your finger needs to be in contact with the screen for a fraction of a second longer than just a quick tap. If you tap the screen too quickly, the touch screen sensor may not sense the tap to respond.**

Using the Operator's Panel Touch Screen

Once you have touched the Eastey Welcome screen on the touch panel you will be able to work with the buttons in the Operator's Panel to access any of the four pages of the interface. These pages contain options and settings for setup and operation.

Main Page / Automatic Operation

The Main page is for fully-automatic operation mode and is the page normally active during automatic operation. (If not, you can view it by touching the Main button at the bottom of any page currently displayed.)



The Main page shows the current system date and time and a running counter of the Total Number of units that have been sealed using the current product settings or recipe. Buttons on the screen or view the Warning page. Buttons in the middle row allow you to Start or Stop the currently running batch, or Reset if an alarm condition occurs.

Warning Page — Opens a page that displays warning messages from the machine, with the most recent highlighted.

Start — Starts automatic mode for machine sealing operation.

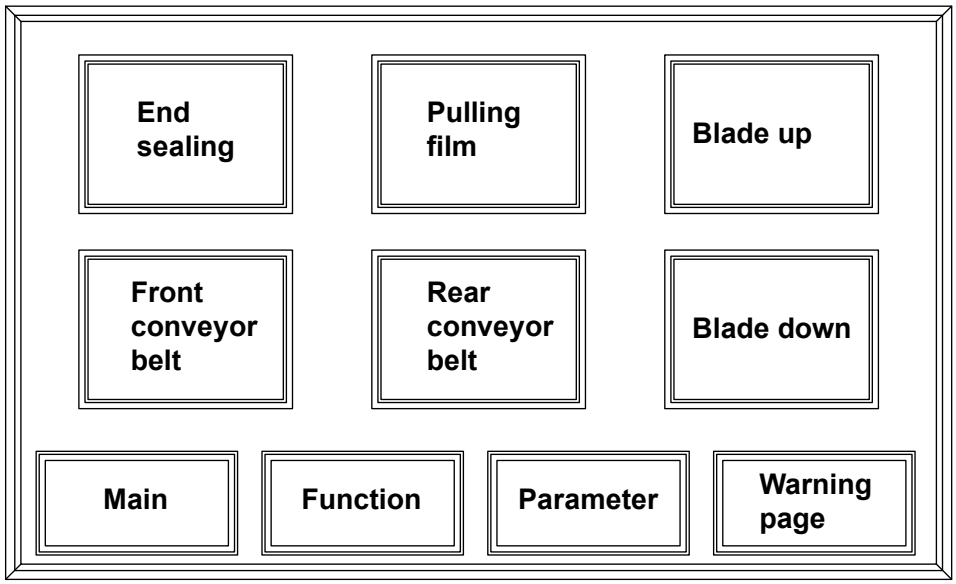
Stop — Stops automatic sealing operation.

Reset — If an alarm condition occurs, click the Reset button to stop the alarm beeping.

Main, **Function**, **Parameter**, and **Manual Operation**
Four buttons along the bottom of the page provide access to the four pages of the interface. They are **Main**, **Function**, **Parameter**, and **Manual Operation**.
These buttons are at the bottom of all four pages of the interface to allow convenient access to any of the other pages from any of the four pages.

Manual Operation Page

The Manual Operation page allows you to operate and control several of the automatic functions of the auto L-sealer manually.



End sealing — Touching this button cycles the hot knife to make a manual L-seal for the end of a bag. Touch this button to manually make an end seal and cut the end of the film.

Pulling film — Touch this button to advance the film to allow you to unroll the film from the roll and manually advance it into the L-sealer.

Blade Up — Touch this button to manually bring the L-sealer blade up if it is in the down position.

Front conveyor belt —Touching this button manually runs the front conveyor belt until stopped.

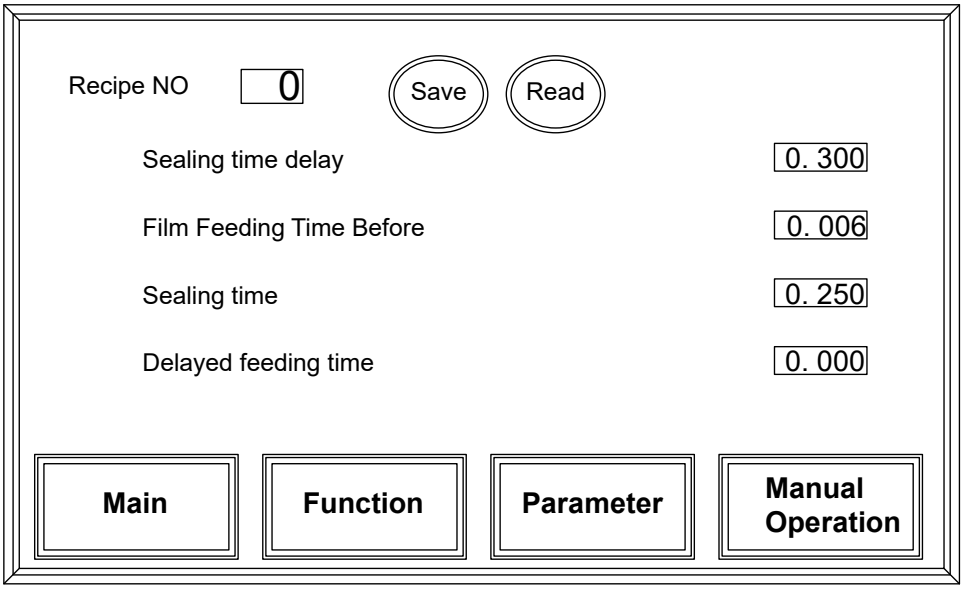
Rear conveyor belt — Touching this button manually runs the rear conveyor belt until stopped.

Blade down — Touch this button to manually bring the L-sealer blade down to the sealing position.

Main, **Function**, **Parameter**, and **Manual Operation**
Four buttons along the bottom of the page provide access to the four pages of the interface. They are **Main**, **Function**, **Parameter**, and **Manual Operation**.
These buttons are at the bottom of all four pages of the interface to allow convenient access to any of the other pages from any of the four pages.

Parameter Page

The Parameter Page allows you to define and store sets of machine parameters, “recipes” for different products you might frequently seal in the auto L-sealer. Recipes are stored sets of machine time settings that are associated with products, so that when you run a batch of products for which time values for Sealing Time Delay, Film Feeding Time Before, Sealing Time, and Delayed Feeding Time, you can recall the saved recipe and do not need to reenter all the numerical values.



Up to ten (10, numbered 0–9) recipes can be created, saved, and/or recalled.

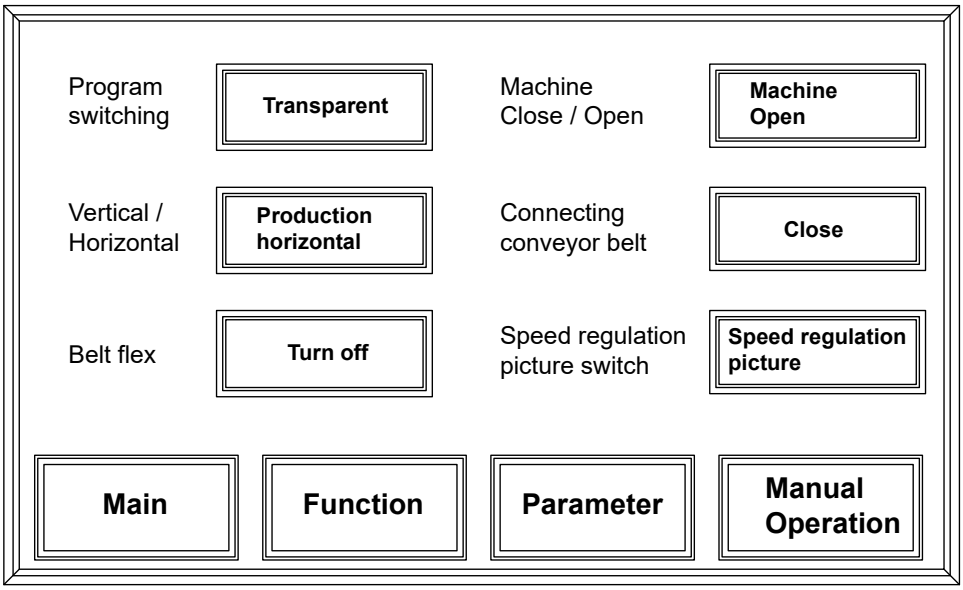
To recall (read) an existing recipe — Touch the Recipe NO numeric field and enter the recipe number (recipes may be numbered 0, 9, or any whole number between 0 and 9), and then touch the Read button. Parameters saved for the recipe will appear in the numeric field for each.

To create a new recipe — Touch the Recipe NO numeric field and enter a number you want to assign to the new recipe. (You can check to see if the recipe number has already been used for a different recipe by touching the Read button. If so, saved parameters will appear for the recipe number.) Touch and fill in the values for each of the four parameters in turn, Sealing Time Delay, Film Feeding Time Before, Sealing Time, and Delayed Feeding Time. When you have entered number values into each of the numeric fields, touch the Save button. The recipe parameters will be saved in the recipe number you specified.

To edit (change parameters of) a recipe — Touch the Recipe NO numeric and touch the Read button. Touch and change the numeric fields for each of the parameters you wish to change, each in turn. When finished, touch the Save button. Your changes to the recipe parameters are saved in the recipe number you selected.

Function Page

Options in the Function page relate to how the Auto-Sealer senses and adapts its programming to products of different appearance and characteristics



Program Switching — Two modes of product detection: for products that appear as a single solid object, or for products that may have spaces or areas that appear as transparent to the product sensor(s).

Machine Close / Open — Determines whether the auto-sealer can start and operate automatically with the machine is open, or if the machine must be closed for automatic operation.

Vertical / Horizontal — Determines whether product detection will scan vertically or horizontally for product entering the sealing area.

Connecting Conveyor Belt — If there is a connecting conveyor belt, set this to Open; if there is no connecting conveyor belt set this to Close,

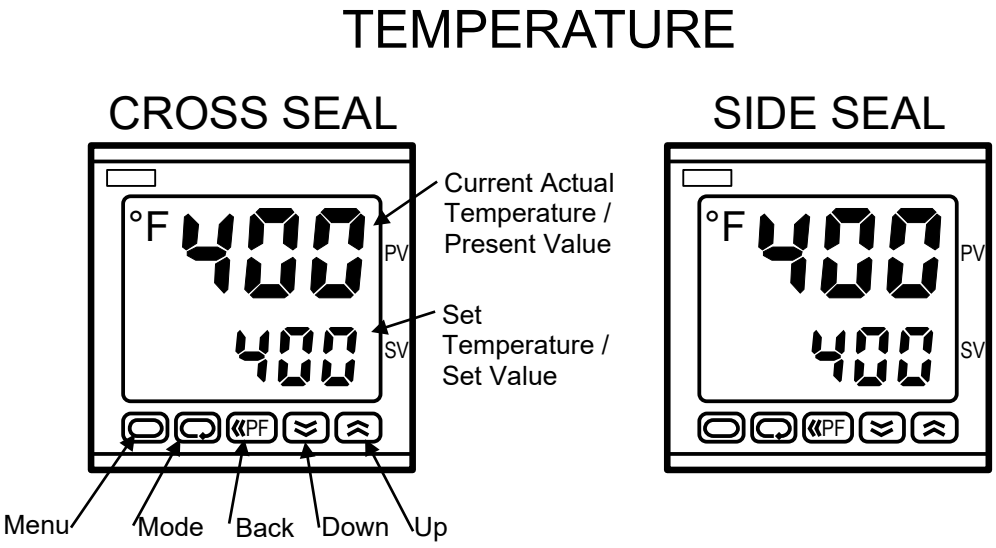
Belt Flex — Allows sensing to compensate for flexing of the auto-sealer infeed conveyor. Depending on application requirements, this feature can be turned on or off.

Speed Regulation Picture Switch — This feature determines whether information returned by the photocell is used to regulate conveyor speed (and thereby speed of product transit). This feature can be set on or off.

Main, **Function**, **Parameter**, and **Manual Operation**
Four buttons along the bottom of the page provide access to the four pages of the interface. They are **Main**, **Function**, **Parameter**, and **Manual Operation**.
These buttons are at the bottom of all four pages of the interface to allow convenient access to any of the other pages from any of the four pages.

Temperature Controllers

Temperature controllers control the temperature of the cutting and sealing knives. There is a separate temperature controller for each of the two knives. For most applications, both temperature controllers should be set to the same temperature, and this will be in the range of 356°F – 428°F (180°C – 220°C) for effective cutting and sealing of polyolefin film.



After turning on the main power, turn on the Heating Switch to provide power to the two temperature controllers and knife heating elements. Use the temperature controllers to set and monitor the temperature of the cutting and sealing knives. All settings on the Temperature controllers that require the Menu and Mode buttons have already been set at the factory and should not require adjustment by nonprofessionals.

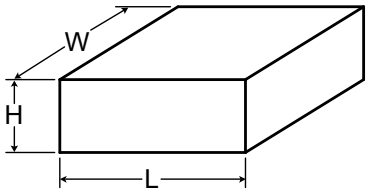
1. Press the left-arrow (≪) button, up-arrow (⌃) button, and down-arrow (⌄) button, and a digit will begin to flash. The flashing digit indicates the digit whose value can be changed by pressing the down- (⌄) or up-arrow (⌃) buttons.
2. If necessary, press the left-arrow (≪) button to shift to the place of the digit that needs to be changed. (The flashing digit indicates the digit that will be changed.)
3. Press up (⌃) or down (⌄) as required to change the flashing digit to the required value.
4. Repeat instructions 2 and 3 above as necessary until all digits have been set to the required value, and then press the MODE button. No digits will be flashing and the new value entered is applied.

Film Setup

CAUTION! **Turn off the working switch when setting up the film.**

Note: **You can turn the heat on to the seal knife heat elements (Side Seal and Cross Seal) to allow them to warm up to operating temperature while setting up the film.**

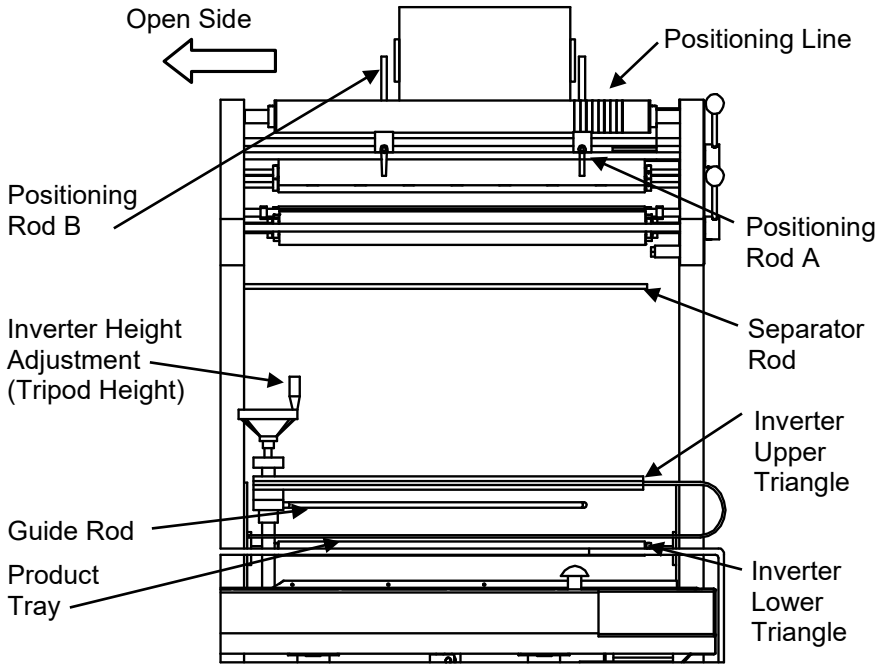
Select the proper width of center-fold film for the product being packaged, taking into account the width and height of the package, plus four to six inches for scrap.



Film Width = Packaging Width (W) + Packaging Height + Scrap (≈ 4 to 6 inches)

1. Place the film roll on the rollers of the film roll cradle at the top of the film unwinder as shown in the following illustration.

   Note: **Place the film center-fold end of the roll toward the infeed end, away from the operator panel. Unless otherwise specified, film opening should be toward Positioning Rod B.**



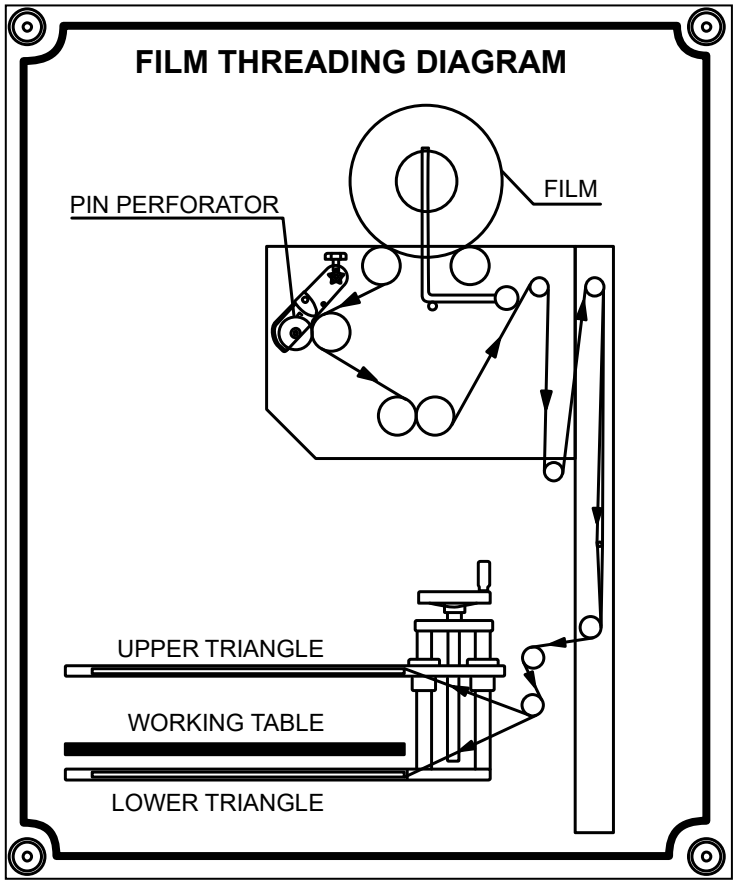
2. Position the film roll on the top cradle rollers. There are eight positioning lines on the front of the film roller to aid in centering the roll. The spacing between positioning lines is 0.394 in. (10 mm). If the height of the product is 0.788 in. (20 mm) or less, the left side of the film should be placed at the rightmost position. If the package height is more than 0.788 in. (20 mm), the higher the packaging, the farther to the left the film should be moved — for every 0.0.394 in. (10 mm) increase in height, move the roll 0.197 (5 mm) closer to the positioning rod. Move the positioning rods (Rod A and Rod B) up to the film roll, then tighten the positioning bolts on the collars to hold the film roll centered in position.

   Note: **As you begin loading the film, you can start heating the L-sealer front and side seals, so they reach operating temperature and are ready for operation when film loading is complete.**

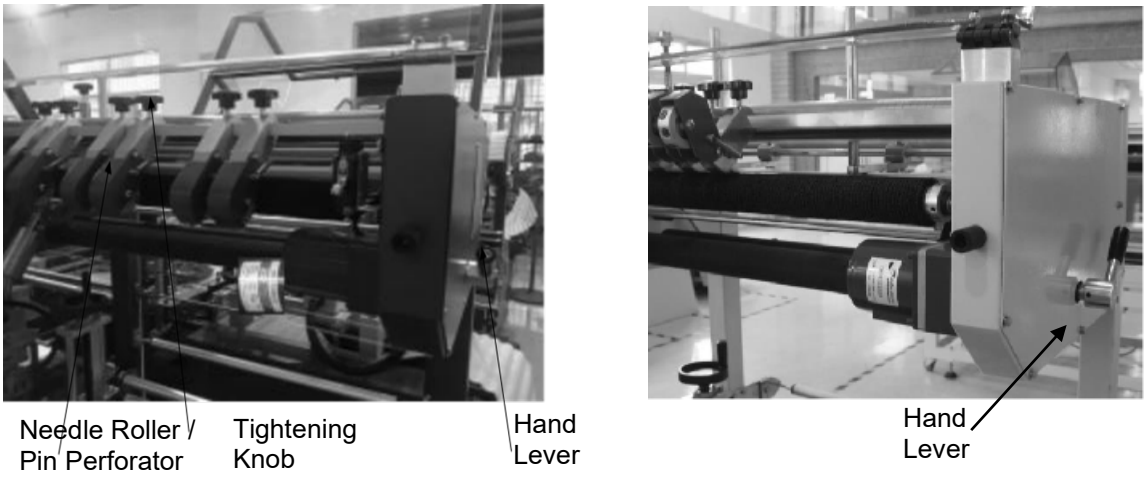
   Polyolefin (POF) film requires a temperature in the range of 356°F – 428°F (180°C – 220°C) for effective sealing and cutting.

3. The Film Threading Diagram plate that is attached to the end of the film unwinder shows how to route the shrink film from the film cradle, through the rollers of the film unwinder, and to the upper and lower triangles of the film inverter.

Film Threading Diagram Plate



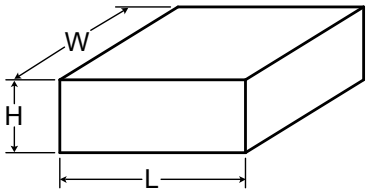
4. Referencing the following figure, pull the handle rearward so that the two rubber wheels are separate. Lift and set needle roller device in the up position, and then spread the film through the needle perforator area. Loosen each needle roller tightening knob to set up and position as many of the pin perforators at positions as required for the application. (Increase or decrease the number and placement of needle rollers as required.)



5. Thread the film through and around the idler rollers and the pin perforator as shown in the Film Threading Path Diagram. Separate the film so one side of the film is to each side of the Film separator

6. Separate the film and pull it through the antistatic bar and around the rollers to the inverters.

7. Adjust the height of the guide rod and film inverter.



Tripod height adjustment is made by turning the handwheel shown on the Film Threading Diagram Plate and film loading diagram shown earlier in this section. Turn the handwheel to adjust the height of the tripod to about 0.2 to 0.4 inches (5 to 10 mm) above the product.

Adjust the guide rod by loosening the screws on the fixed block. The guide rod height can be adjusted up or down depending on requirements for the product. Adjust the guide rod to approximately half the height of the product. Retighten the screws to lock the position of the guide rod after it has been adjusted to the required position.

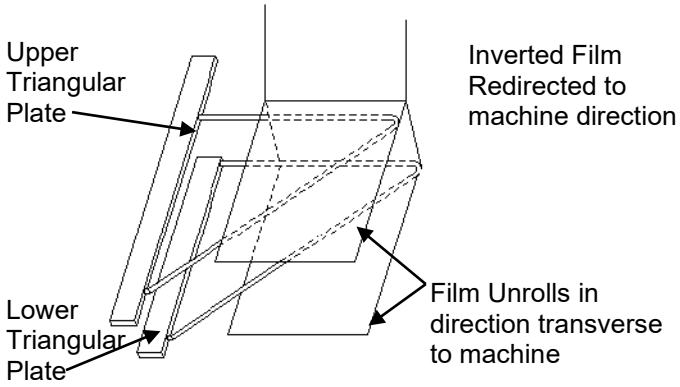
If necessary, adjust the horizontal position of the conveyor belt. To adjust, hold down the handle connecting the rod and locking block and then pull the handle to adjust the position of the front of the conveyor belt. After pulling the handle to properly position the conveyor belt, release the handle and lock the block to secure the conveyor in position.

When the adjustment is complete, the distance from the guide rod to the product should be in the range of one-third to one half of the product height.

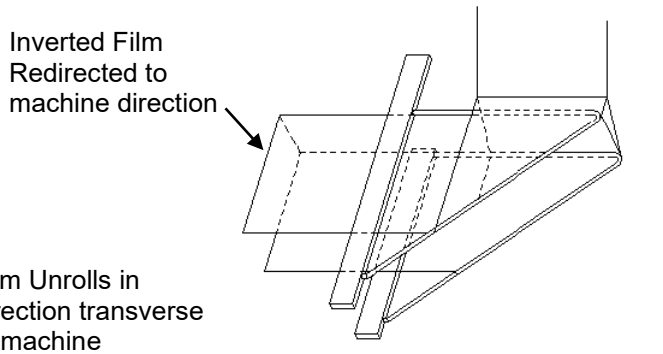
8. Pull the film out approximately three feet and four inches (one meter) across the top of the upper inverter.

9. Carefully separate the two sides of the center-folded film to each side of the guide rod.

10. Unfold and open the film, holding the top film across the top of the upper inverter triangle with your left hand, so the film enters, top film over the top to flip underneath. With your right hand, bring the bottom film underneath the infeed conveyor at the infeed end and underneath the bottom inverter so the bottom film enters under the bottom to flip over to the top side of the bottom inverter. See the following illustration on the next page.

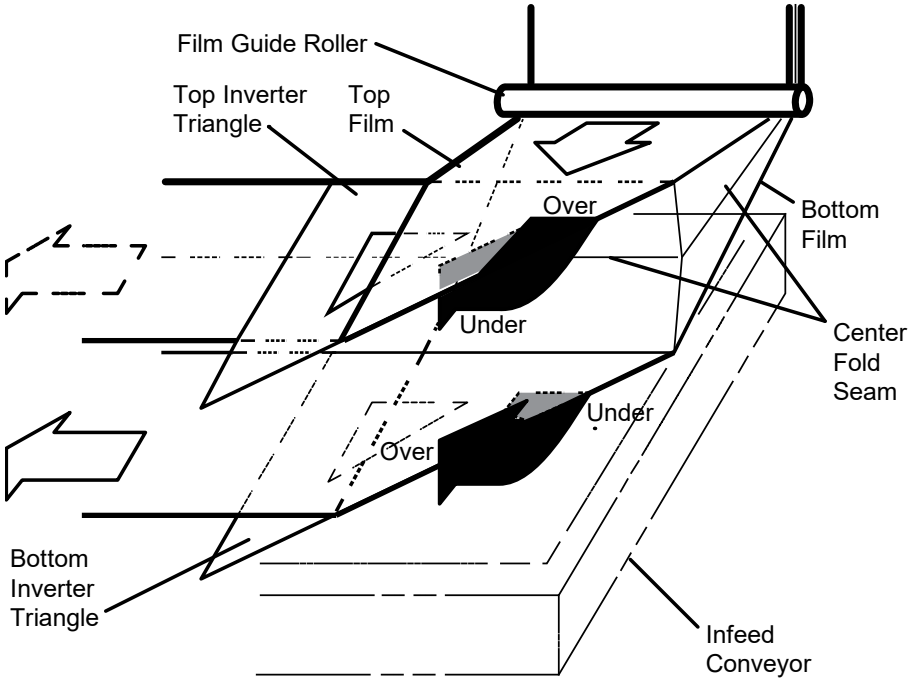


Separate sides / layers of film:
Top film passes over top triangle;
Bottom film passes under bottom triangle.



Invert film: fold film over triangles:
Top folds under top triangle;
Bottom folds over bottom triangle.

Note: **Each inverter triangle (top and bottom) inverts, that is, flips or folds over, the part of the film (top or bottom) with which it comes into contact, upside-down. It turns the top half of the film upside-down and the bottom half upside-down, in such a way that the film exits the inverters inside-out relative to how it is stored on the roll, and in such manner that the center-fold seam approaches the outer corner of the inverter at the infeed end, and when the film is inverted, the center fold seam is then redirected behind and parallel to the infeed conveyor. (See the illustration on the next page.)**



At this point, for the L-sealer to seal and cut film to form bags, the front and side seal blades must be set to the appropriate temperature for the type of film.

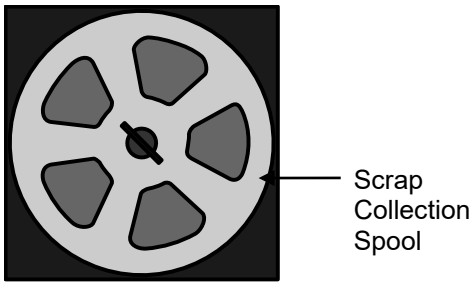
Polyolefin (POF) film requires a temperature in the range of 356°F – 428°F (180°C – 220°C) for effective sealing and cutting.

For the following steps, access the Manual Operation page of the Operator's Panel interface. These steps will involve touching the buttons as directed and interacting with the L-sealer.

11. When the temperature reaches the temperature required for the film being used, touch the Pulling Film button on the Manual Operation page of the Operator's Panel interface. The L-sealer will bull the shrink film. If the shrink film is not pulled, check to make sure the film is placed correctly.

12. If the film advances normally, touch the End Sealing button on the Operator's Panel. The sealing blades will create a seal and cut the shrink film.

13. Repeat advancing and sealing/cutting the shrink film several times as described above until enough scrap is generated to be rolled onto the scrap film collection spool for two to three turns, and then the sealing machine can be operated automatically. More information about setup for scrap winding is provided later in this section.

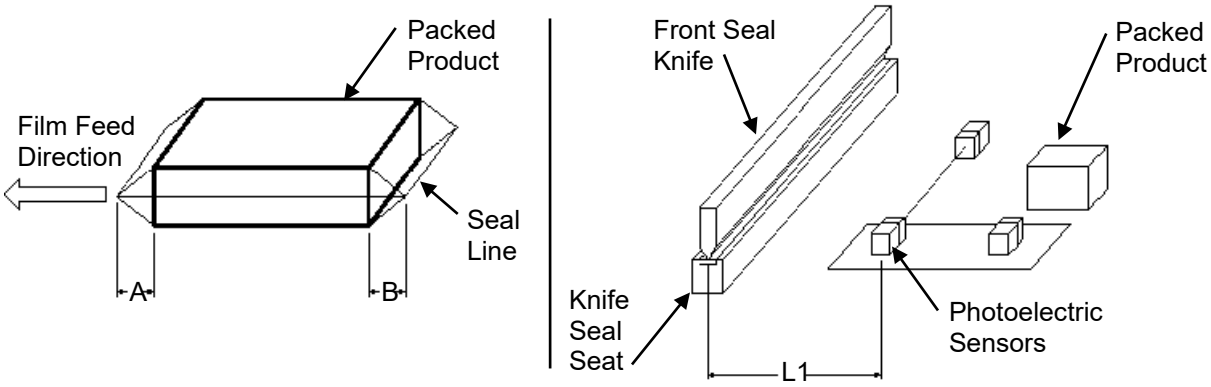


14. Switch the machine to automatic mode and place the product to be sealed on the conveyor.

    Note: Keep both hands completely away from the conveyor surface to avoid injury.

15. Adjust the seal as required for the best seal condition. Typically, the best seal conditions for shrinking film to the package occur when the bag length preceding the package and bag length following the package are both approximately equal to one-third (⅓) of the product height.

    In the illustration to the left below, lengths A and B represent the bag length preceding the package and bag length following the package. Ideally, the package should be positioned in the bag formed by the sealer such that A and B are approximately equal to one third of the height of the product package.



If the product height H is less than 3.94 in. (10 cm), the amount of film preceding the package may be too long and will require adjusting the position of the photoelectric sensors. See the illustration at right above. Here L1 represents the distance from the center of the front seal knife / seat to the center of the front pair of photoelectric sensors.

If the product height is equal to or greater than 3.94 in. (10 cm), set the distance L1 to the maximum available. If the maximum available distance is not enough, this can be compensated for through software by adjusting the reserved pre-feeding film advance time. The longer the time is set, the longer the bag length preceding the product, dimension A, will be.

Bag length following the package, B in the illustration to left on the preceding page, should be adjusted to one half the height to provide the best shrink performance. Seal length is related to the way the photoelectric sensors work and are programmed through the Operator's Panel interface.

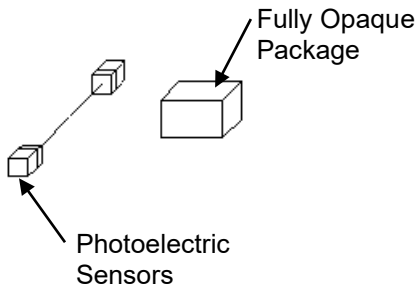
Different shrink films require different sealing time, which is generally about 0.3 to 0.6 seconds, depending on the sealing situation. Sealing lines should be cut off cleanly with no jagged edges or holes.

Note: **If cuts are not uniform, this may be caused by overheating of the hot knife. Check seal temperature setting and make sure the temperature is set to within the correct temperature range for the type sealing film material being used.**

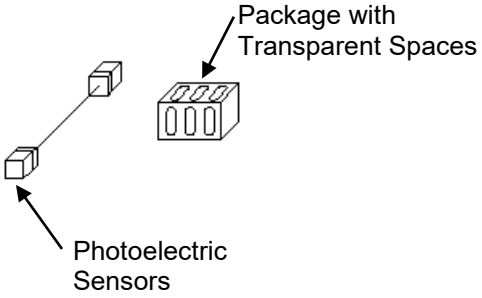
16. If the sealing line is satisfactory, the sealing machine operation setup is complete.

A Note About Products with Void Regions or Transparent Spaces

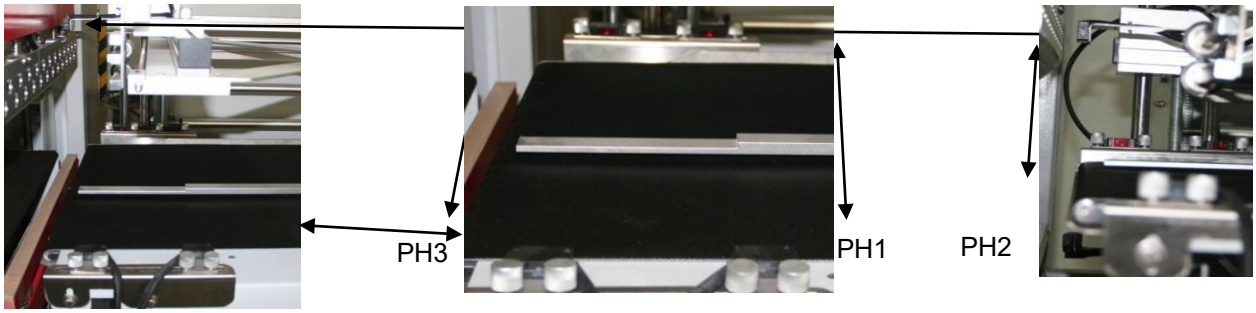
When packaging items are transparent or have irregular shapes (and especially if the objects have holes such that light can pass through) photosensors may mistakenly misinterpret these kinds of items as multiple items instead of a single item with parts where light can pass through. Examples with a fully opaque package and a package with transparent or void spaces are shown below.



Standard Mode



View Compensation "Transparent" Mode



To avoid the misinterpretation described above, this must be compensated for through the software. Specify the Program Switching in the Function Page of the Operation

Interface: Touch the button labeled Transparent and operate in this mode when required for packaging items containing voids or transparent regions.

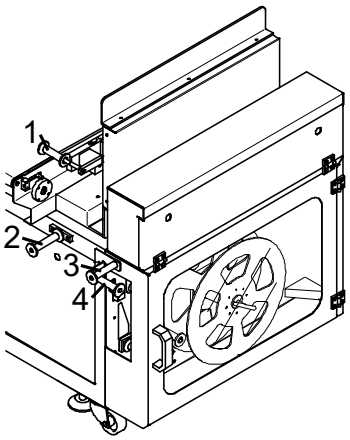
In this mode, the photoelectric cell captures the first point of the product and then sends the instruction to the PLC and controls the delay relay to start timing. (Because before the product can completely pass through the area, the photoelectric cell will sense light, dark, light, dark, possibly several times, which under the standard circumstances indicate the end of one package and beginning of another package — so in this case, the standard mode is not effective and view compensation that allows a longer delay sealing time is required.)

Setup for Scrap Winding

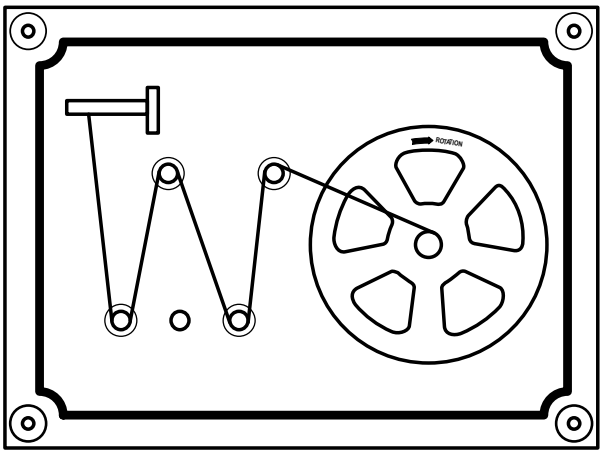
To avoid waste film bunching up and obstructing operation, the scrap film is routed by rollers to the scrap film collection spool in the base of the L-Sealer. Use the following instructions and illustrations to collect generated film scrap onto the scrap collection spool.

As you run the L-Sealer, excess film will be cut off and exit the front of the chain drive near the discharge end. Follow the instructions below to guide the scrap film line around the scrap guide roller spools, under and over through the array of anti-slack tensioners, and on to the scrap collection spool.

1. As scrap begins to be generated, guide the scrap film around the scrap guide spool rollers 1, 2, 3, and 4, shown below, located at the exit conveyor at the exit end of the L-sealer. Route the film over guide roller spool 1, under guide roller spool 2, over guide roller spool 3, and under guide roller spool 4, into the scrap collection spool compartment. Refer to the diagram on the plate affixed to the L-sealer near the scrap guide spool rollers.



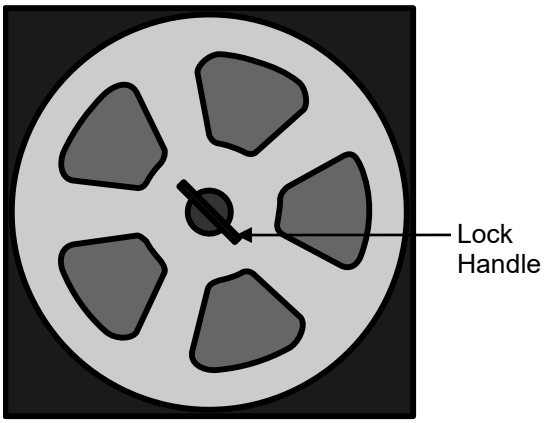
2. Inside the scrap collection spool compartment are anti-slack tensioner rollers that the scrap film must be wound onto. These tension rollers help take up slack and maintain proper tension in the scrap film before being wound finally onto the scrap collection spool.

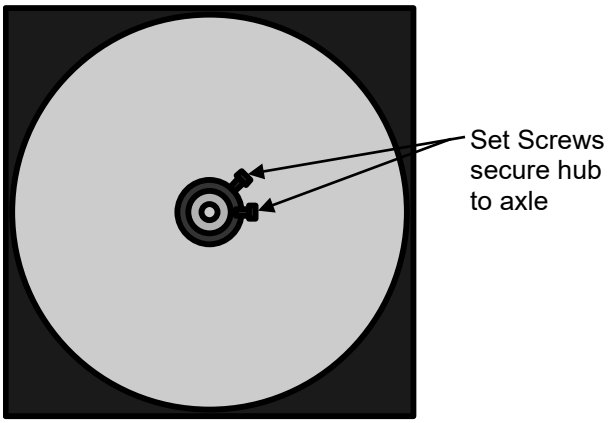


3. Route the scrap film line around the scrap film collection spool, as shown. Begin winding the scrap one complete revolution around the center hub of the scrap film collection spool, so the cling of the film will keep the film from slipping on the spool as the drive motor rotates the spool.

If there is scrap already on the spool, remove the old scrap before you start winding the new scrap. If the film tends to slip, the start of the scrap film can be tied loosely around one of the “spokes” of the spool as shown at right below.

Differing film applications may have different tension requirements for scrap collection. Friction driving the scrap spool is adjustable to allow or restrict slipping as required. The lock handle on the scrap spool can be tightened or loosened to increase or decrease friction, or the external fixed disk may be removed to access the socket screws to adjust to increase or decrease the friction between the collection spool hub and driving axle.





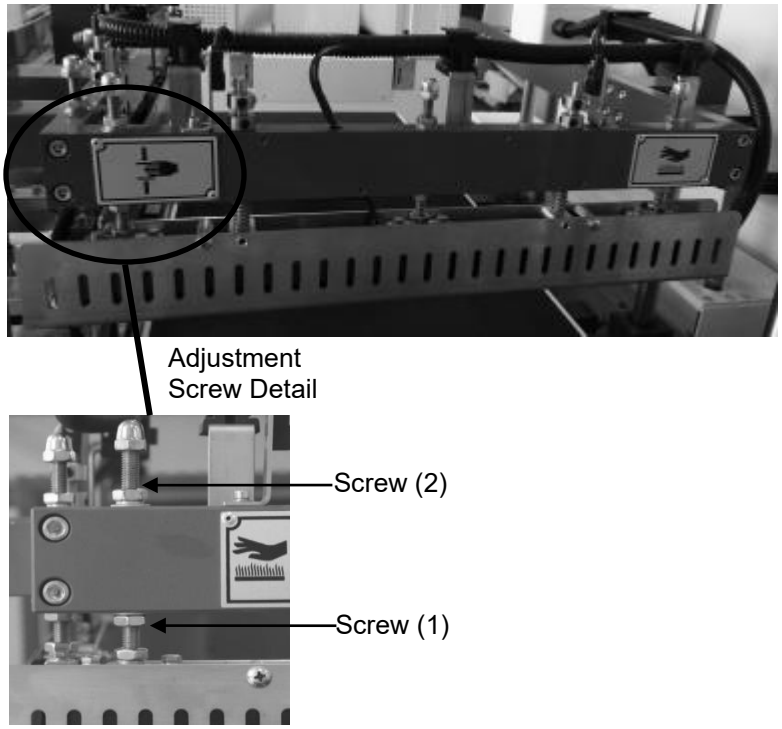
When complete, the scrap film should accumulate on scrap film collection spool as packages are sealed. When the spool is full of scrap film, cut the film, remove the scrap film from the spool, and restart the scrap film from the end that was cut off.

L-Seal Check and Blade Adjustment

As a final step in the setup of the L-sealer for operation, perform a check of the L-sealer seal. Use a piece of white paper that can be placed beneath the knife seal to perform this check.

1. Place a piece of white paper between the sealing knife and the sealing seat. Select Manual Mode for sealing, then touch Blade Down and Blade Up to simulate creating a seal. Check the piece of paper to see visible evidence of the knife seal contact. If the contact is uneven, this can be adjusted.

2. To Adjust the knife to relax the blade, loosen the fixed nut (1) in the photo below and rotate the screw (2) counterclockwise. Adjust the screw (2) for even moderate strength, and then retighten the fixed nut (1) to secure the blade pressure setting.



3. When the fine adjustment is completed, if the seal is not even or there is not a definite cut-off or a weak seal, adjust the sealing knife using the instructions in the Adjustments section.

Caution: **As air pressure is removed from the system, the seal head will not be supported and will collapse downward. Wait for the hot knife blades to cool down before making further adjustments.**

If the sealing knife is damaged it must be replaced (see instructions in the Maintenance section of this user guide) and adjusted according to the steps above.

Adjustments

Unless specifically stated otherwise, shut down the Auto L-Sealer and all connected equipment and disable input power before performing any adjustments, maintenance, or repairs. Be sure to follow your company's lockout/tagout rules and procedures for the VSA1825 Automatic L-Sealer and all equipment connected to it (for example, VST1710 Shrink Tunnel or coding/marking or printing equipment). Refer to accompanying user guides or manuals for connected equipment for any special shutdown instructions to allow for proper cooldown of belts and internal components to protect them from extended periods of excessive heat.

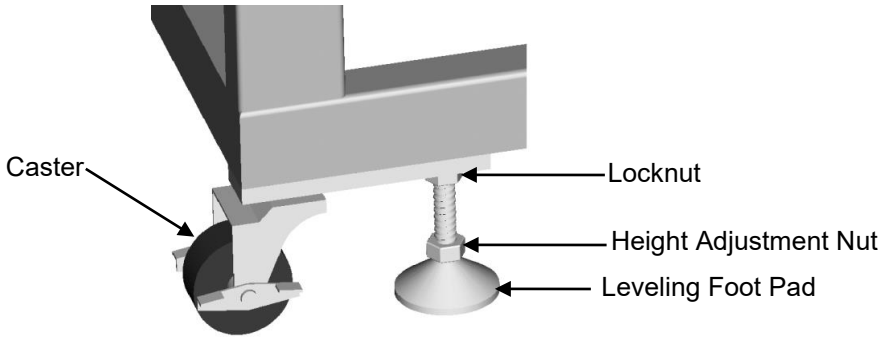
WARNING: Failure to follow lockout/tagout practices can result in serious injury and/or equipment damage and may void the warranty.

Note: Lockout mechanism(s), padlock(s) and identification tag(s) are the responsibility of your company in accordance with your company's lockout/tagout rules and procedures and are not provided by Eastey.

Note: **Before shipping, the machine has been carefully adjusted at the manufacturer, Eastey, for the product samples that have been provided for product testing. If adjustments are not required, do not arbitrarily make adjustments to the machine. It is recommended that only trained technicians make adjustments as required**

Auto L-Sealer Leveling and Height Adjustment

When the Auto L-sealer has been moved to its location, block the wheels to prevent rolling while adjusting the leveling legs to raise and level the machine in its permanent location.



To adjust the height or to level the L-sealer, first loosen the locknut that secures the leg height. Turn the height adjustment nut clockwise to raise the corner of the L-sealer or turn the height adjustment nut counterclockwise to lower the corner. When the desired height is attained and the machine is level, retighten the locknut to secure the leveling

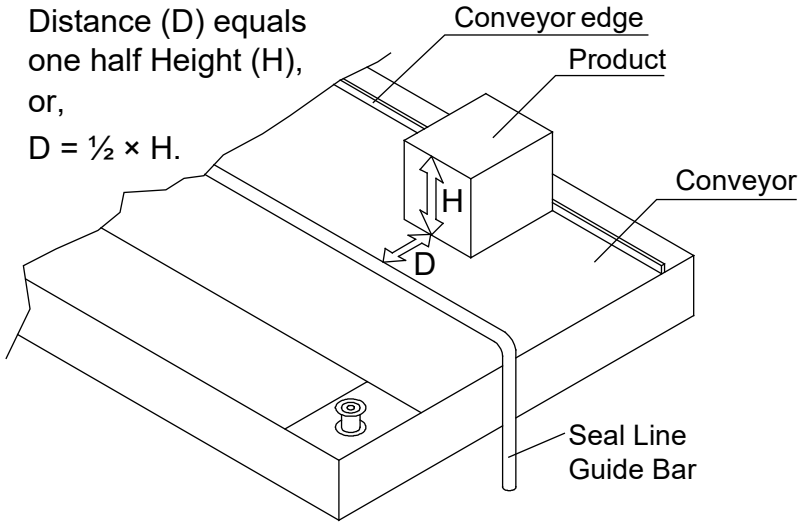
foot height. Repeat for all four leveling feet so each leveling foot is extended approximately equally to raise the machine to the desired height and the machine is level.

Adjusting Conveyor Width for Size of Product

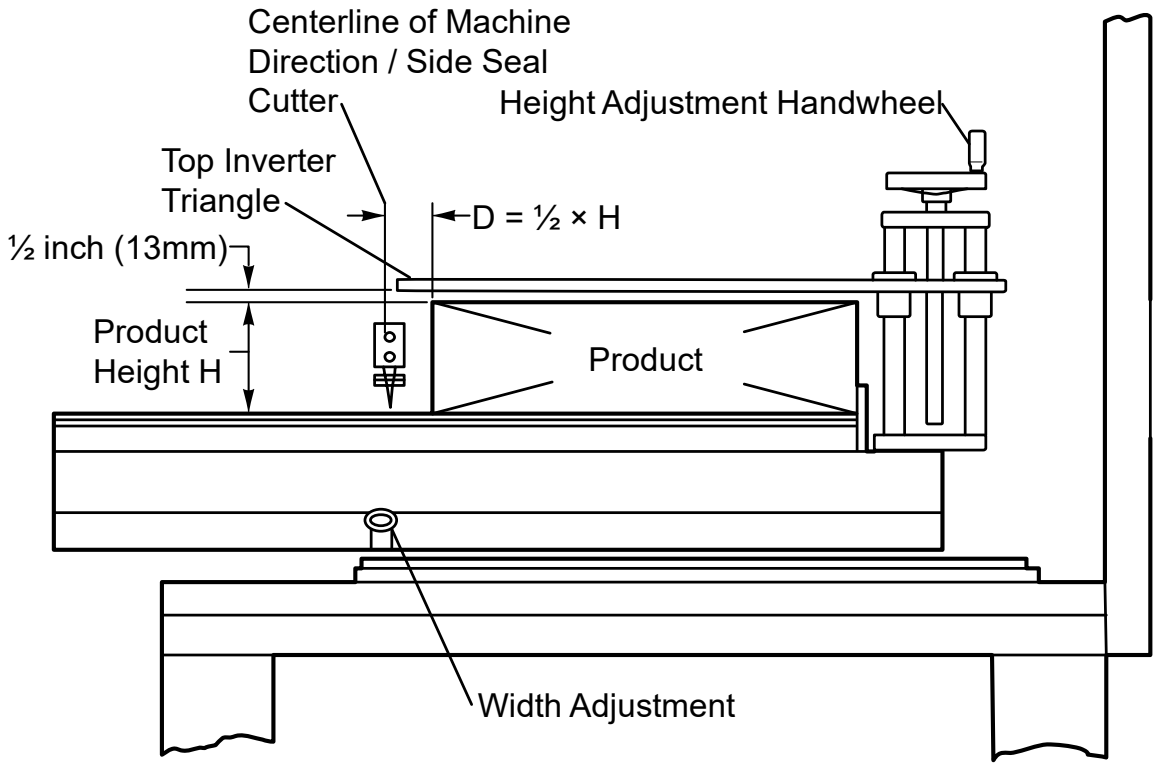
1. Temporarily turn the Working switch to Off and place a sample of the product to be sealed on the conveyor near the infeed end.
   - Place the product against the rear edge of the infeed conveyor as shown below and measure the height.
2. Place the product against the rear edge of the Infeed conveyor. Measure the height of the product, (H) and calculate the distance (D) as half of the height of the product (½ × H = D).

   Example 1: Product Height, H = 4 inches.
   Distance from product to seal line guide bar, D = ½ H = ½ × 4 in.
   D = 2 inches.

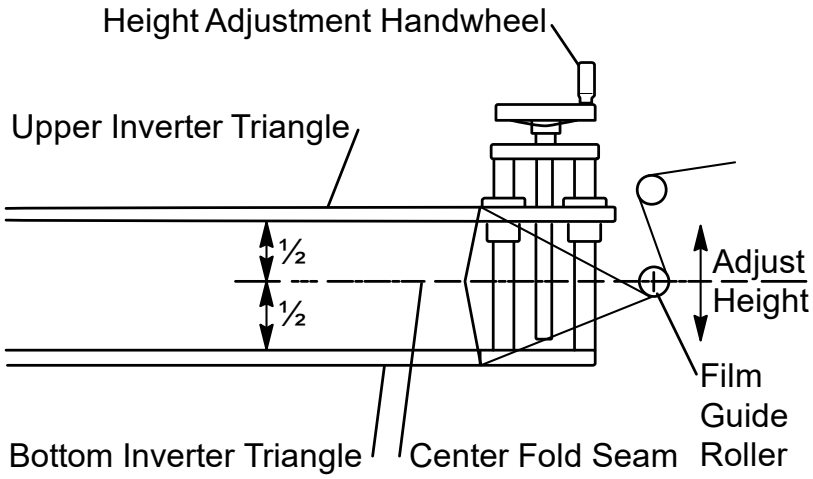
   Example 2: Product Height, H = 7 inches.
   Distance from product to seal line guide bar, D = ½ H = ½ × 7 in.
   D = 3½ inches.
3. Move the Seal Line Guide Bar the distance (D) from the base of the product as calculated (D = ½ × H) and shown in the illustration.



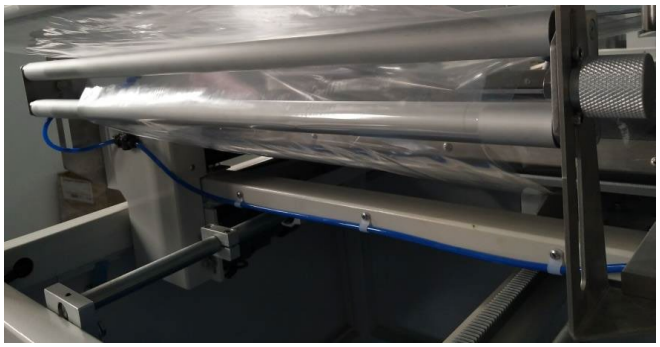
4. Use the Infeed Conveyor Width Adjustment to adjust the width of the infeed conveyor to the calculated distance D.



5. Adjust the film guide roller to the center of the distance between the two Inverter Triangles. See the illustration at the top of the following page.
6. Use the Infeed Conveyor Width Adjustment to adjust the width of the infeed conveyor to the calculated distance D.

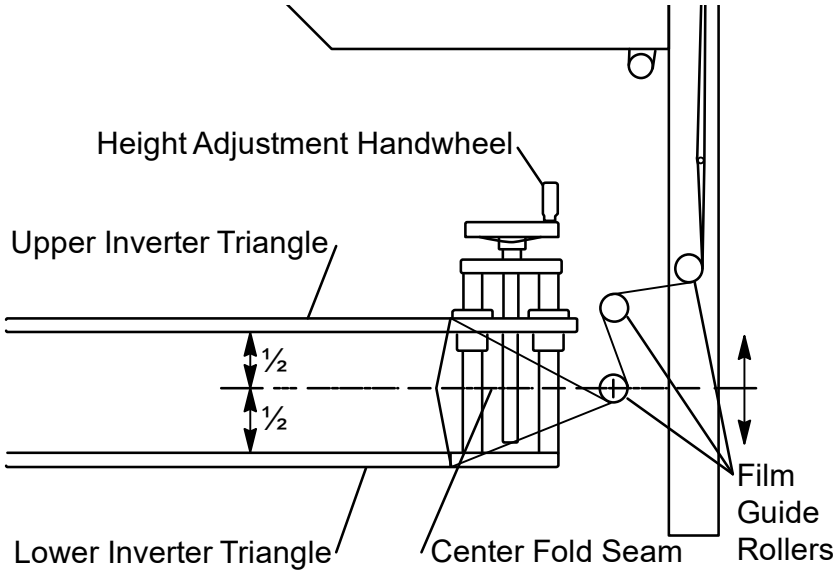


Shrink Film Guide Rollers Parallel and Height Adjustment



The film guide rollers shown in the above photo are the rollers at the back of the machine at the bottom of the film unwind behind the film inverter. These rollers are adjustable and must be parallel and level for the film to unwind to the inverter triangles area properly.

To adjust the film guide rollers, loosen the fixed nut and adjust the guide roller up or down as required and then retighten the fixed nut to secure the guide roller. Adjust the final guide roller setting the roller center to approximately one half (½ H) the distance between the lower and upper inverter triangles. See the following diagram.

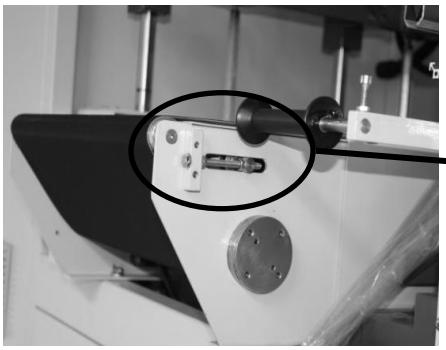


Note: **If the adjusted position of the film guide rollers results in the machine beating due to harmonic vibration during operation, it will be necessary to adjust the location of the film guide rollers to eliminate beating and stabilize operation as required for the specific application.**

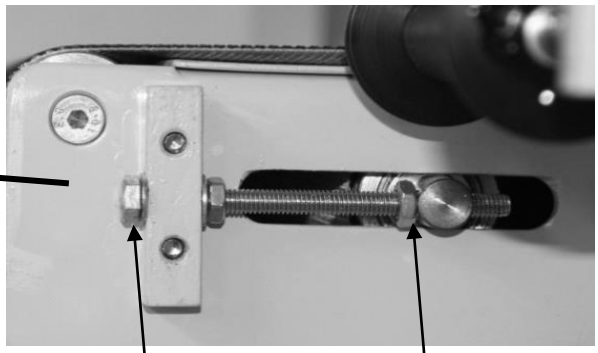
Conveyor Belt Tension and Alignment Adjustment

Shut off power and disconnect electrical connections before making any adjustments. When the conveyor belt has become too loose or is out of alignment, it can be adjusted by tightening or loosening the conveyor tension adjustment screws.

Conveyor adjustment screw mechanisms are at the corners of each conveyor assembly. See the following photos and accompanying instructions.



Belt Tension Adjustment Detail



To adjust the conveyor tension, loosen the setscrew (1) on the collar against the conveyor roller shaft, shown in the photo above. This allows movement of the conveyor shaft by turning the screw (2). Loosen the setscrew (1) on both sides of the conveyor, as it will be necessary to adjust the shaft positioning screws (2) on both sides of the conveyor to maintain conveyor alignment.

If the belt is too loose, turn the screw (2) on both sides of the machine counterclockwise to tighten the belt to the required tightness; if the belt is too tight, turn the screw (2) on both sides of the machine clockwise to loosen the belt slightly as required.

If the belt tends to pull to either side, turn the screw (2) counterclockwise to increase the tightness between the roller and the belt, or turn the screw (2) on the other side of the conveyor clockwise to decrease the belt tension.

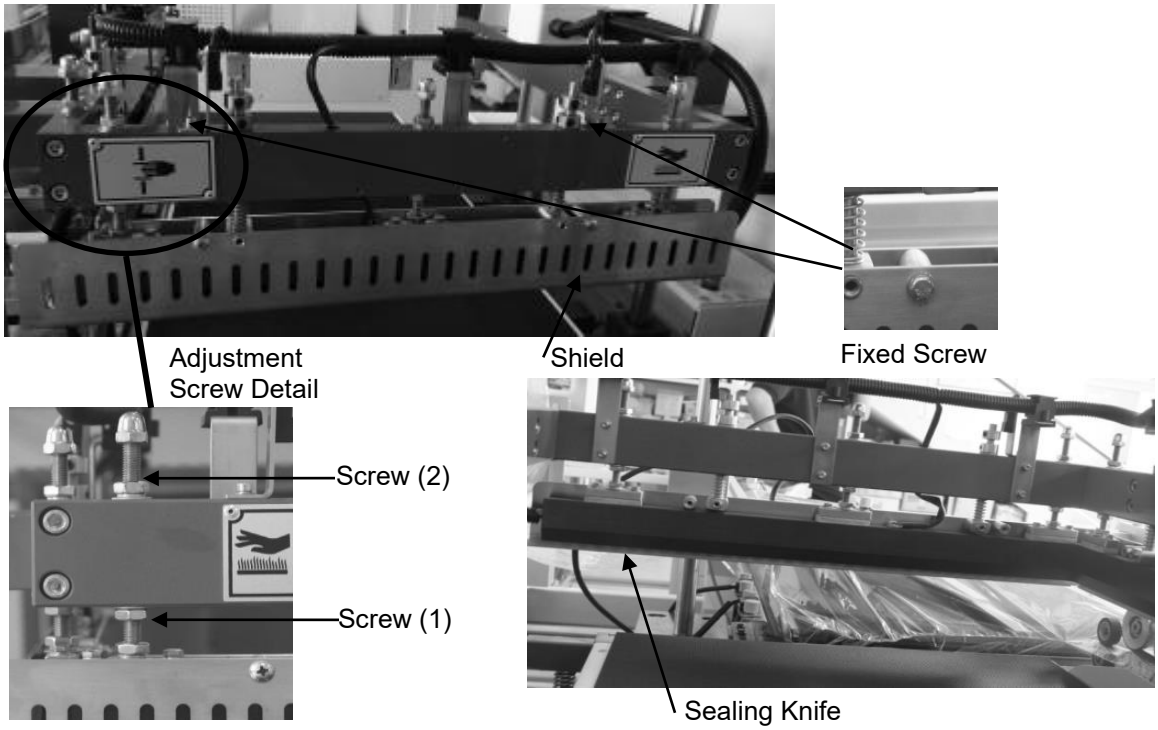
When conveyor tension is complete, retighten setscrews (1) to lock the tensioning positioning screws (2). Run the machine for about ten minutes to test the conveyor tension setting. If the conveyor runs centered without pulling to either side, the adjustment is complete.

L-Seal Check and Adjustment

To perform a check of the L-sealer seal, use a piece of white paper that can be placed beneath the knife seal.

1. Place a piece of white paper between the sealing knife and the sealing seat. Select Manual Mode for sealing, then touch Blade Down and Blade Up to simulate creating a seal. Check the piece of paper to see visible evidence of the knife seal contact. If the contact is uneven, this can be adjusted.

2. To Adjust the knife to relax the blade, loosen the fixed nut (1) in the photo below and rotate the screw (2) counterclockwise. Adjust the screw (2) for even moderate strength, and then retighten the fixed nut (1) to secure the blade pressure setting.



3. When the fine adjustment is completed, if the seal is not even or there is not a definite cut-off or a weak seal, adjust the sealing knife using the following instructions.
4. First tun off the power and then shut off the air tube.

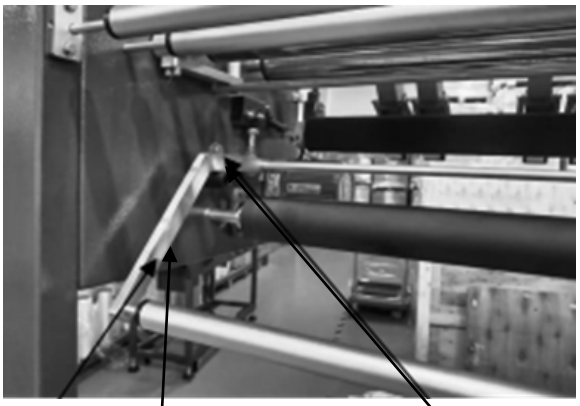
Caution: **As air pressure is removed from the system, the seal head will not be supported and will collapse downward. Wait for the hot knife blades to cool down before making further adjustments.**

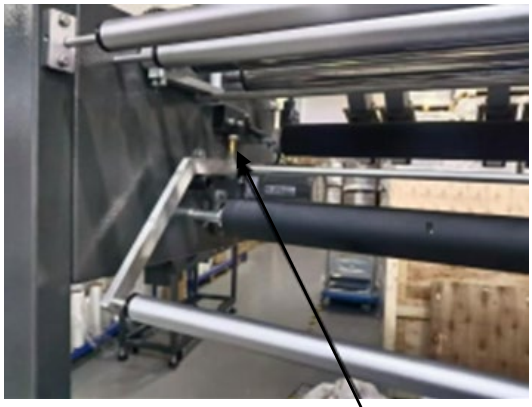
If the sealing knife is damaged it must be replaced (see instructions in the Maintenance section of this user guide) and adjusted according to the steps above.

Shrink Film Feed Limit Switch and Eccentric Trigger Adjustment

This section explains how to adjust the limit switch and eccentric trigger wheel mechanism.

When the swing arm is in the position shown in the photo at left on the following page, the smaller diameter of the eccentric trigger wheel is slightly in contact with limit switch and the feed motor is not running.





When the swing arm is in the position shown in the photo at the right above, the trigger wheel will have turned through an angle and moved relative to the limit switch and the film feed motor starts running. When adjusting the trigger wheel, make sure the small diameter end contacts the limit switch.

Package Anti-Cut / Anti-Crush Safeguard Adjustment

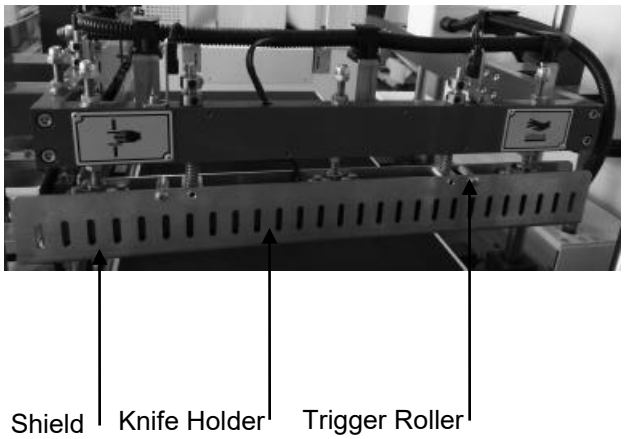
Caution: **Only experienced technicians who have training and previous experience with this L-sealer should change this setting. If you are not experienced with this machine, do not attempt to adjust this setting.**

The auto L-sealer is designed and manufactured with a safeguard feature to help prevent having the L-sealer from closing on top of and damaging product packages as they enter the product sealing area to be sealed. Without this feature, if an item enters the sealing area during the part of the sealing cycle when the L-seal is coming down, the software would not sense the product to stop the sealing operation and the L-sealer would come down to close, and cut or crush the product package, resulting in damage to both the product and the sealing knife.

The anti-cut / anti-crush sealing protection height is set from the factory to 0.2 in. (5mm) and this is the factory default setting set in the software. This means that if the height of the package is 0.2 in (5mm) or higher (inclusive), both the product and knife sealer are protected from any potentially damaging collisions. Any product under 0.2 in. (5mm) would not be protected, however. The minimum product height value is adjustable and can be raised or lowered for the specific sealing application.

To be able to adjust the minimum product height for anti-cut / anti-crush requires a basic understanding of the mechanism. As shown in the photo at the left below, the sealing

device is linked to the cylinder by a gear and chain which actuate the L-sealer seal head. The magnetic proximity switch, PS1, shown in the center photo is mounted onto the cylinder. When the piston of the cylinder reaches the stroke position where PS1 is located, a safety sealing signal is generated. The piston is allowed to continue to run to the cylinder bottom point to complete the sealing action. The sealing time is finished and the piston returns.



As shown in the photo at right above, the proximity switch is affixed to the knife blade holder, and the shield can move up or down along the positioning hole of the upper knife holder. When the guard plate is subjected to an upward force (indicating it has come into contact with a product package or other object under the knife), the trigger roller is triggered and moves to a certain height and is detected by the proximity switch. The proximity switch will issue an abnormal sealing signal to the controller and the cylinder will immediately return, to prevent the seal knife from continuing downward and accidentally cutting or crushing the product package.

Under normal circumstances, the safety seal priority to the abnormal sealing signal does not activate. But when sealing, if there is a product package in the sealing area, the shield pressure to the product package and the trigger roller has triggered an abnormal sealing signal in the product height range (at or above the minimum height setting) and priority has been set to the security sealing signal, so before the sealing signal is sent, the cylinder sensor has detected the knife holder shield bounce and issued an alarm to prevent further downward motion of the sealing head, and in turn, prevents the sealing knife cut on the package and prevents resulting damage.

Caution: Only experienced technicians who have training and previous experience with this L-sealer should change this setting. If you are not experienced with this machine, do not attempt to adjust this setting.

Adjusting the location of the magnetic switch on the cylinder facilitates adjustment of trigger signal timing. When adjusting the magnetic switch position, only move it 0.04 in. (1 mm) at each adjustment. Moving the magnetic switch backward causes the security signal to be triggered later; moving the magnetic switch forward causes the security signal to be triggered earlier. This adjustment should be made only by an experienced

technician who has training and previous experience with this machine. Operators without experience or training should not attempt this adjustment.

The trigger time adjustment is made by adjusting the trigger roller and proximity switch. Loosen the screws on the trigger wheel, adjust the height of the trigger wheel up or down. The shorter the sensing distance, the faster the trigger time, and the longer the sensing distance the slower the trigger time. This adjustment should be made only by an experienced technician who has training and previous experience with this machine. Operators without experience or training should not attempt this adjustment.

Note: **If there is any obstruction between the trigger roller and the proximity switch, this will defeat the anti-cut / anti-crush protection.**

Maintenance

Unless specifically stated otherwise, shut down the Auto L-Sealer and all connected equipment and disable input power before performing any adjustments, maintenance, or repairs. Be sure to follow your company's lockout/tagout rules and procedures for the VSA1825 Automatic L-Sealer and all equipment connected to it (for example, VST1710 Shrink Tunnel or coding/marking or printing equipment). Refer to accompanying user guides or manuals for connected equipment for any special shutdown instructions to allow for proper cooldown of belts and internal components to protect them from extended periods of excessive heat.

WARNING: Failure to follow lockout/tagout practices can result in serious injury and/or equipment damage and may void the warranty.

Note: Lockout mechanism(s), padlock(s) and identification tag(s) are the responsibility of your company in accordance with your company's lockout/tagout rules and procedures and are not provided by Eastey.

The Eastey VSA Value Series Automatic L-Sealer will provide many hours of maintenance-free operation. Regular maintenance is the best way to ensure the active service life of the machine. There are a few items that may require attention from time to time. To aid in the high reliability of the Automatic L-Sealer, inspect the machine regularly and clean machine components or make adjustments if necessary. Disconnect power before making any repairs. Be very careful when servicing or adjusting this equipment. If in doubt, stop and obtain qualified help before proceeding.

Cleaning

Cleaning of the machine is occasionally necessary. Turn off machine power while cleaning.

1. After daily operation, carefully wipe the sealing cutter clean with a soft cloth. A damp cotton towel is recommended to clean knife blades.
2. The machine is not designed or built for waterproof function. When cleaning the machine, use a damp cloth. DO NOT splash water or other liquids on or into the machine.
3. Avoid spilling liquid or acid or other corrosives on the machine. Do not operate in wet or corrosive conditions.

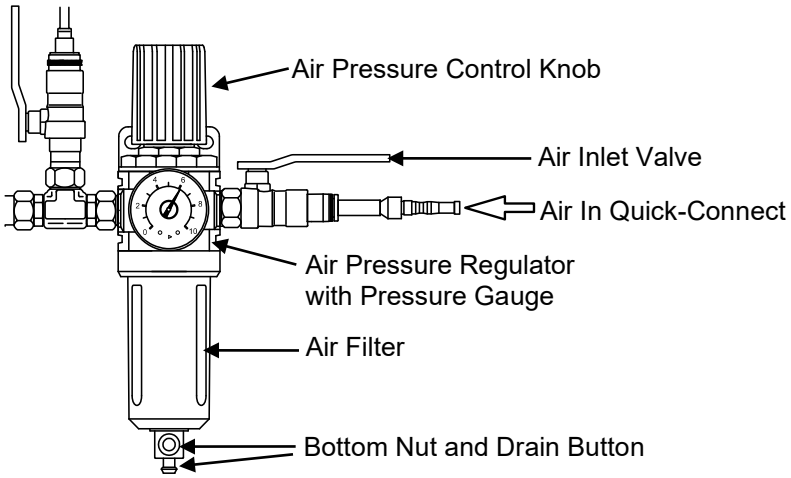
Rollers

Make sure rollers stay clean and grease free. If you need to clean the rollers, simply wipe them down with a clean lint free cloth. If a more thorough cleaning is necessary,

wipe the rollers down with a mild detergent and water and let dry. DO NOT splash water or other liquids into the machine. **Never use harsh or abrasive cleaners or chemical agents when cleaning this machine.**

Pneumatic Control Valve Maintenance

Check the pneumatic filter and pressure regulator from time to time for moisture accumulation. If the air filter tank accumulates more than 2/3 of the total tank volume, it will be necessary to drain the water. To drain the water, disconnect air or shut off the air inlet valve. Press the drain button at the bottom of the filter and allow all water to drain from the filter tank.



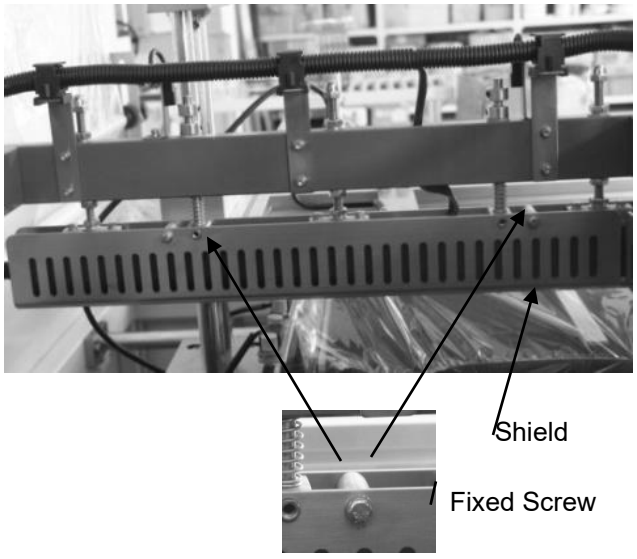
Inspect Sealing Areas and if Necessary, Clean Excess Film Residue

At the beginning of each day before working with the L-sealer, you may use air pressure to blow dust from the machine to keep it clean.

If there is film stuck to the sealing knife, use a cotton towel to gently remove the film. For best results, remove stuck film and residue while the knife is warm. Do not use metal or abrasives to scrub the knife or pad, as this will damage the protective film on the knife and cause degradation of the knife and seal pad.

Check the Cutting Knife Fixed Screw

At the beginning of each use or at least once each month, check the cutting knife fixed screw for tightness. If it has come loose, retighten it.



Inspect and, If Necessary, Replace the Cutting Blade

If the sealing knife becomes worn or damaged to the point where it is no longer usable, it must be replaced and the new sealing knife installed and adjusted for use. Inspect the knife periodically for wear or damage.

1. First turn off the power, disconnect air and relieve air pressure.

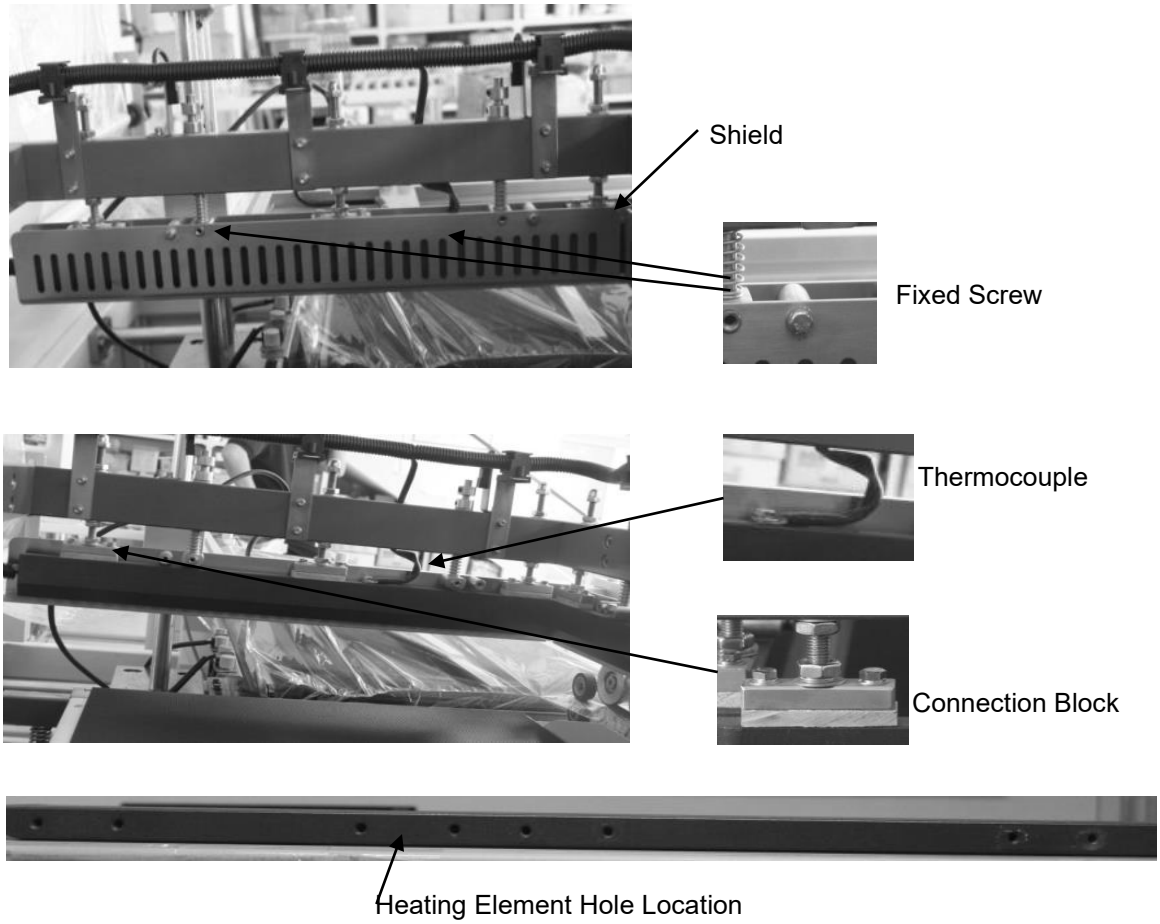
   Caution: **As air pressure is removed from the system, the seal head will not be supported and will collapse downward. Wait for the hot knife blades to cool down and for air to exit the system before making further adjustments.**

2. Disconnect the two air tubes as shown in the following photos.

Air Hoses Shown Disconnected

3. Remove the fastening screws on the hot knife shield and remove the shield.
4. Remove the thermocouple from the heating unit, loosen the screws on the connection block, and remove the knife from the upper knife holder. See the group of photos that follow, at the top of the next page.
5. Disassemble the set screw of the heating element inside the sealing knife and remove the heating element.

6. Clean the sealing knife blade. If the sealing knife shows wear or damage and cannot be used anymore, replace the blade with a new sealing knife blade.

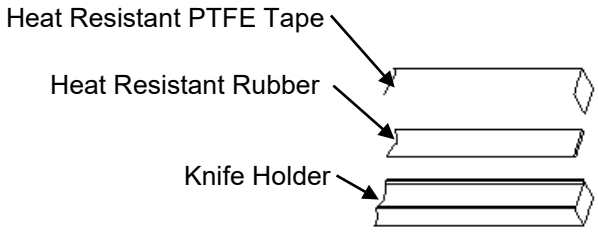


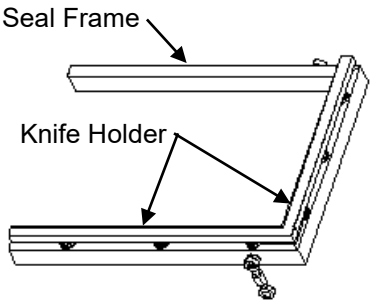
7. When finished, reassemble the sealing knife assembly, following the above steps in reverse order.

If the sealing knife is damaged, replace the sealing knife and then adjust it according to the instructions in the Adjustments section of this user guide.

Replace Worn Tape or Ineffective Sealing Area Parts

Replace the tape each week for regular operation or if the tape comes loose during normal operation. The tape will become worn through normal use and will require replacement. Loose or missing tape will allow the sealing film to easily stick to the cutting knife. When sealing becomes ineffective because of undesired sticking of the film to the knife or sealing components, replace the tape — check the tape cover on the silicone strip, and check the knife itself. If either is worn or damaged, replace it with new replacement tape and parts.





Replacement of Heat-Resistant Rubber

1. Turn off power and wait until the heating element has cooled, then tear off heat-resistant tape.
2. Remove the heat-resistant rubber, noting its orientation, and replace it with new heat-resistant in the same orientation. Make it match with the knife seat concave side to ensure its surface is flat, and then remove excess.
3. Affix the heat-resistant tape paying close attention. The tape surface must be flat and cannot have any wrinkles.

Belt Maintenance

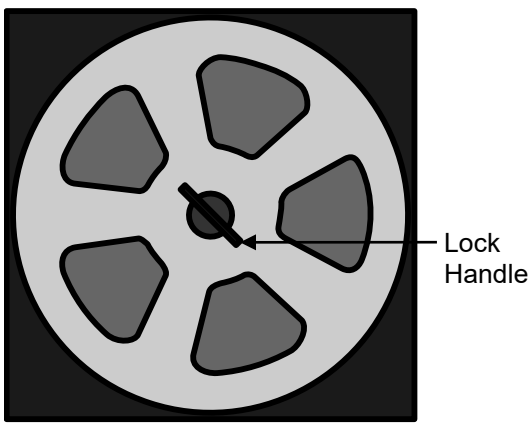
After a period of running time, the belt will gradually loosen. When the belt begins to slip noticeably or track to either side, the belt will require adjustment to tighten the belt and may require adjustment to correct belt alignment and tracking. See the instructions for Conveyor Belt Tension and Alignment Adjustment in the Adjustments section of this user guide.

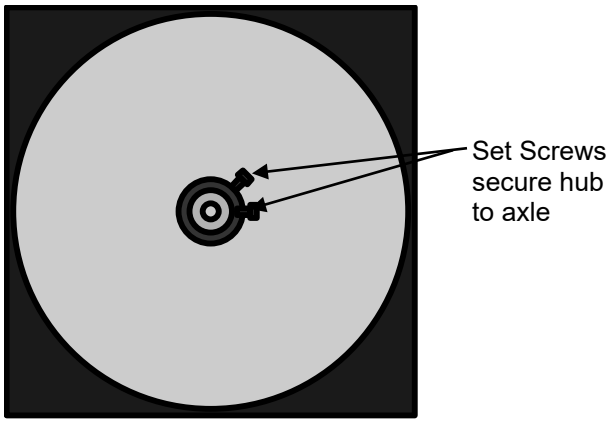
Scrap Collection Spool Maintenance

Once every month, grease the scrap collection spool as needed.

Temporarily remove the scrap collection spool, apply grease to contacting surfaces, and then reinstall the scrap collection spool using original hardware when finished.

Note: Remove any accumulated scrap film from the spool if present.





Bearing and Bearing Block Maintenance

Approximately every three months or as needed, apply a small amount of hydraulic oil the bearing and bearing block. Apply the hydraulic oil to the contact gap between the spindle and bearing to maintain a film of oil for lubrication.

Chain and Sprocket Maintenance

Approximately every three months or as needed, temporarily remove the shield for the chain and sprocket and apply grease to the chain and sprocket. Reinstall the shield after maintenance.

Lifting Screws Maintenance

Once a month, service the lifting screw. Temporarily remove the rear baffle to access the lifting screw. Apply grease to the chain, sprocket, and the contact clearance for the four T-type screws. Operate the lift down and up to adjust so that all parts are fully lubricated. When finished, re-secure the rear baffle.

Heating Element Maintenance

When the electric heating element is burnt out or damaged and will not heat, replace the heating element and replace it with an equivalent heating element.

Note: **When replacing the heating element, note the rated voltage and wattage of the heating element to be sure to replace it with the correct replacement.**

1. Turn off the power and wait for the heating element to cool.
2. Remove the heating element wires located in the wiring panel.
3. Loosen the attaching screws and remove the heating element.

4. Replace the removed heating element with a new working element of the same electrical ratings for voltage and wattage.
5. Fasten the replacement heating element in place with attaching screws.
6. Route the heating element wires to the wiring panel and connect them and then re-secure the electrical panel.

Troubleshooting

Problem	Possible Cause	Solution
Machine has no electricity; Control power lamp does not light.	■ Power not connected. ■ Power Switch Off ■ Power switch burned out. ■ Fuse burned out.	► Connect machine to power. ► Switch on the power. ► Replace the power switch with a new switch. ► Replace burned-out fuse with new fuse.
Machine has electricity but will not run.	■ Emergency switch (E-Stop) is pressed. ■ PLC is not working. ■ PLC is burned out. ■ Emergency switch contact is burned out.	► Release the emergency (E-stop) switch. ► Check PLC input power. ► Replace PLC with new PLC. ► Replace Emergency switch with working Emergency switch.
Heater doesn't heat.	■ Heater switch is turned off. ■ Default temperature is set too low. ■ Heater switch contact is burned out. ■ TC temperature controller burned out. ■ SSR solid-state relay is burned out. ■ Heating rod is broken.	► Turn on the heater switch. ► Adjust the default temperature higher to required heat setting. ► Replace the heater switch. ► Replace temperature controller with working temperature controller. ► Replace nonfunctioning SSR with working solid state relay. ► Replace broken heating rod.
Temperature controller is not working.	■ SSR solid-state relay is not working or broken. ■ Thermocouple is loose or broken. ■ Thermocouple is burned out. ■ Heat protective relay R7 is broken.	► Replace broken or nonfunctioning SSR with a new working solid state relay. ► Retighten the thermocouple or replace it. ► Replace thermocouple. ► Replace relay R7.

Problem	Possible Cause	Solution
Film feeding motor doesn't run.	■ Feeding limit switch PR6 is broken.	► Replace feeding limit switch PR6.
	■ Feeding relay R5 is broken.	► Replace relay R5
	■ Feeding motor has been overloaded or overheated.	► Restart the feeding motor.
	■ Feeding motor has been overladed or overheated and is broken or damaged.	► Replace the feeding motor.
Front conveyor motor doesn't run.	■ PLC Y1 contact is damaged.	► Replace contact Y1 or change the PLC program or replace the PLC.
	■ Brake controller BR1 is broken.	► Replace brake controller BR1.
	■ Front conveyor motor has been overloaded or overheated.	► Restart the front conveyor motor.
	■ Front conveyor motor has been overloaded or overheated and is broken or damaged.	► Replace the front conveyor motor.
Rear conveyor motor doesn't run.	■ PLC Y2 contact is damaged.	► Replace contact Y2 or change the PLC program or replace the PLC.
	■ Brake controller B2 is broken.	► Replace brake controller BR2.
	■ Rear conveyor motor has been overloaded or overheated.	► Restart the rear conveyor motor,
	■ Rear conveyor motor has been overloaded or overheated and is broken or damaged.	► Replace the rear conveyor motor.

Problem	Possible Cause	Solution
Pulling film motor doesn't run.	■ PLC Y3 contact is damaged. ■ Scrap motor relay R9 broken. ■ Manual feeding film switch is broken. ■ Scrap film motor has been overloaded or overheated and is broken or damaged.	► Replace contact Y3 or change the PLC program or replace the PLC. ► Replace the scrap motor relay R9. ► Replace the manual feeding film switch. ► Replace the scrap film motor.
Sealing device doesn't work.	■ Mechanical failure due to film or foreign matter stuck in the gear rack. ■ PCL Y4 contact is damaged. ■ Sealing solenoid valve SV1 is broken. ■ Manual sealing button is broken.	► Clear foreign matter and film residue. Replace contact Y4 or change the PLC program or replace the PLC. ► Replace solenoid valve SV1. ► Replace the broken manual sealing button.
Sealing alarm buzzer sounding.	■ Knife shield is pressing on the packaged product. ■ Sealing stops suddenly and the alarm buzzer is sounding.	► Take out the product and press manual sealing button. ► Lower the trigger sleeve on the cutter seat slightly to the proper position, or adjust (move forward) the sensor on the cylinder to the appropriate position.
After sealing, the film didn't cut off, or sealing is not fast, or sealing line is cracking.	■ Sealing time is set too short. ■ Upper and lower sealing seat didn't seal tightly. ■ PTFE tape is damaged. ■ Down-seat rubber is damaged.	► Adjust sealing time, add 0.1 second at each time adjustment. ► Adjust the sealing seat. ► Replace the PTFE sealing tape. ► Replace rubber.

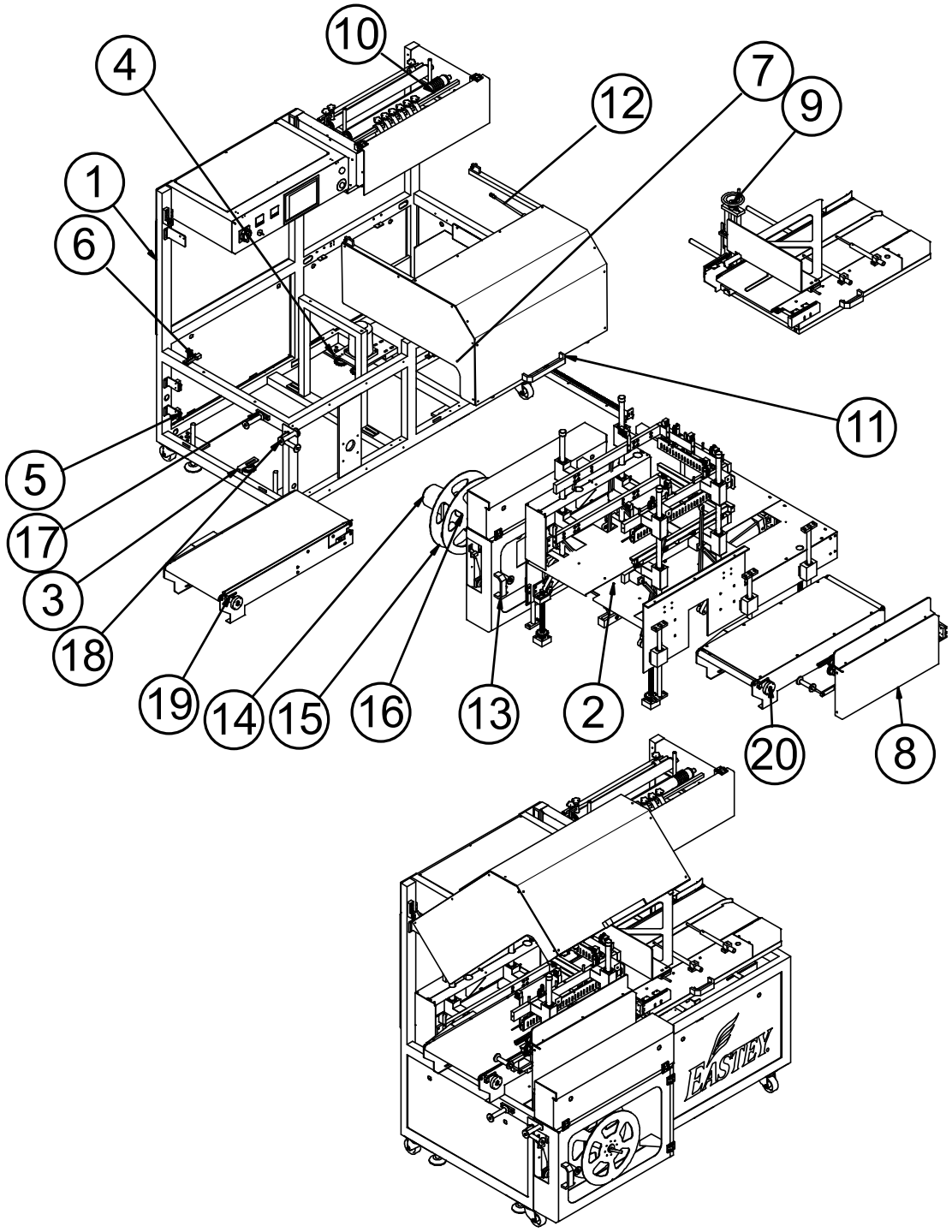
Problem	Possible Cause	Solution
Scrap film pull motor keeps running.	■ Electric photosensors are not aligned.	► Loosen the photosensor adjustment screws and make the photosensor line up so that the indicator light lights up, and then retighten the adjustment screws.
	■ Electric photosensor is broken or nonfunctioning.	► Replace the electric eye.
Side knife presses on the packaged product.	■ The product was not driven by the conveyor guide edge.	► Place the produce against the conveyor guide edge correctly.
Front knife presses on the packaged product.	■ Delay sealing time is not set long enough; the machine starts sealing before the product has passed completely through the sealing seat.	► Increase the time setting for the seal timer.
	■ Packaged product has transparent or void spaces within the product.	► Change the electric photosensor mode. Refer to the review of compensation mode operation.
Front conveyor deviates from running straight.	■ The front driving roller is unstable.	► Adjust the front driving roller until the conveyor is running normally.
Film pull is not smooth.	■ The film placement is wrong.	► Adjust the placement of the film to center the film roll. See page 28.
Film puller doesn’t pull film.	■ Film scraps are jamming up the film puller.	► Clean film scraps from film puller.

Problem	Possible Cause	Solution
Film top layer or bottom layer is offset.	■ The film is not centered correctly on the film cradle. ■ Bottom film guide roller is not set to proper height and/or inverter and tripod are not set correctly. ■ Wrong position of film clamp. ■ Film roll was not folded at center correctly.	► Center the film on the film cradle. See page 28. ► Adjust bottom film guide roller to correct height and adjust inverter triangle and tripod setting to correct for the offset. See page 42. ► Adjust film clamp to correct position. ► Replace film roll
After sealing once, the machine does not work.	■ Proximity switch PR5 is broken or does not sense induction.	► Check proximity switch PR5; if it is broken or nonfunctioning, replace it.
Intermittent behavior where sealing Knife doesn’t reach full seal position.	■ Output point of PLC sealing time replay, Y6 is kept closed.	► Replace PLC.

Parts List

VSA1825 Value Series Auto L-Sealer Assembly

Partially-Assembled View and Assembled View – FM350-00-00 | 350 Final Assembly



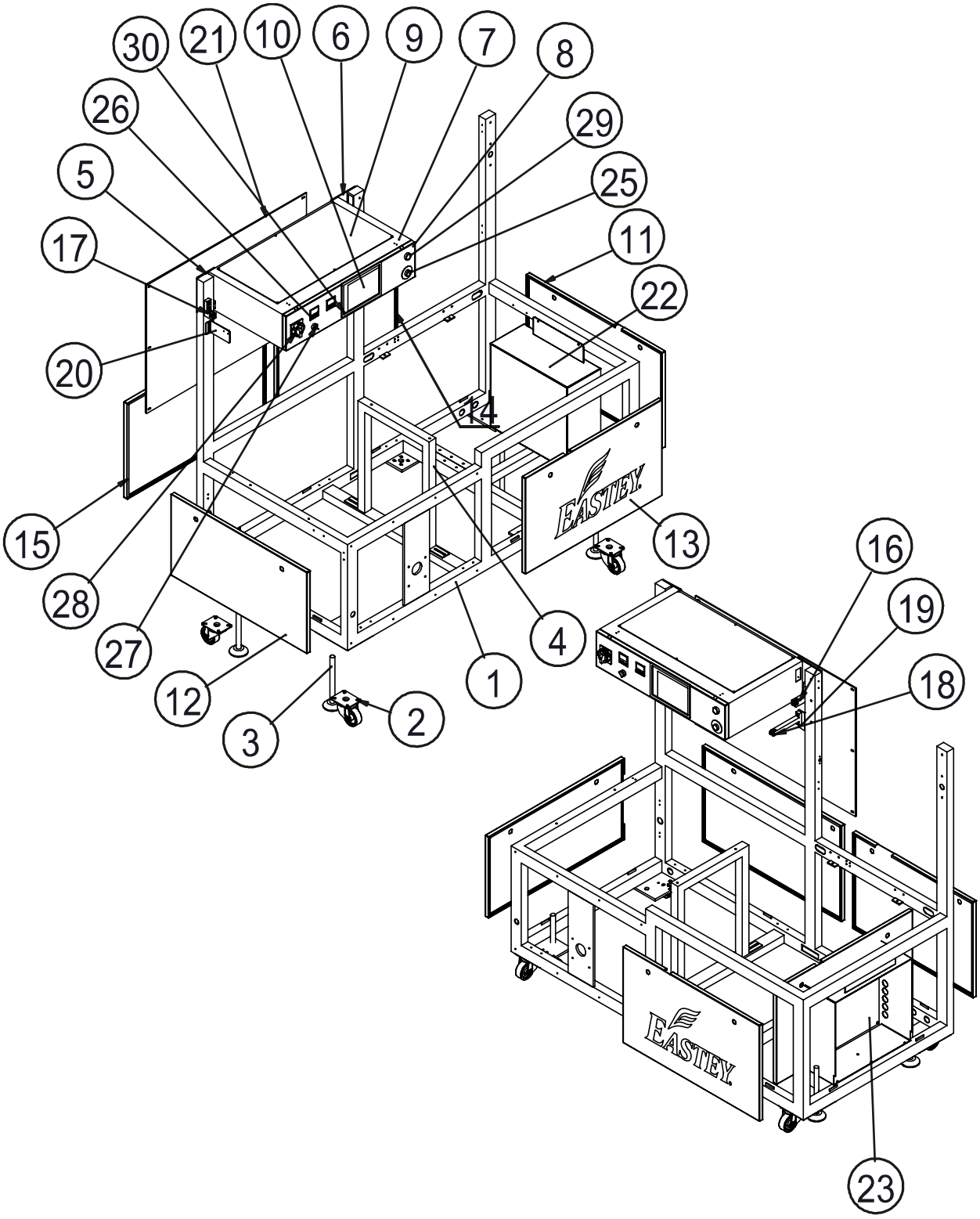
VSA1825-TKV1 Auto L-Sealer Assembly

Parts List – FM350-00-00 | 350 Final Assembly

Item	Part Number	Description	Reference	Quantity
1	SUBV0001	Base and Controls Frame and Cover Panels	FM350-01-00	1
2	SUBV0005	L-Sealer Sealing Components Area	FM350-05-00	1
3	SUBV0006	Sprocket with Tension Bracket & Bearing	FM350-05-00018	1
4	SUBV0007	Lift Motor with Mounting & Sprockets	FM350-05-00019	1
5	SUBV0008	Limit Switch with Bracket	FM350-05-00021	2
6	SUBV0009	Limit Switch with Adjust Plate & Angle Bracket.	FM350-05-00022	1
7	VS180305	Air Tank	B350B102	1
8	SUBV0010	Film Pulling Assembly	FM350-07-00	1
9	SUBV0002	Infeed Conveyor with Inverter & Tripod	FM350-02-00	1
10	SUBV0003	Film Cradle, Film Unwind, and Perforators	FM350-03-00	1
11	SUBV0004	Sealing Area Safety Cover Assembly	FM350-04-00	1
12	VS180052	Lift Strut, Safety Door	FM350-04-05	1
13	SUBV0011	Scrap Wind Up Assembly	FM350-08-00	1
14	VS180053	Drive Motor, Scrap Film Accumulation Spool	B350B008	1
15	SUBV0012	Scrap Disk Assembly (Accumulation Spool)	FM350-08-0005	1
17	SUBV0013	Tensioning Spool with Bar	FM350-08-0002	1
18	SUBV0014	Right-Angle Redirect Scrap Guide Spools	FM350-08-0004	1
19	SUBV0015	Exit Conveyor	FM350-12-00	1
20	SUBV0016	Infeed Conveyor	FM350-06-00	1

SUBV0001 Rack Assembly

Partially-Exploded – 2 Views – FM350-01-00 | 350 Rack Assembly



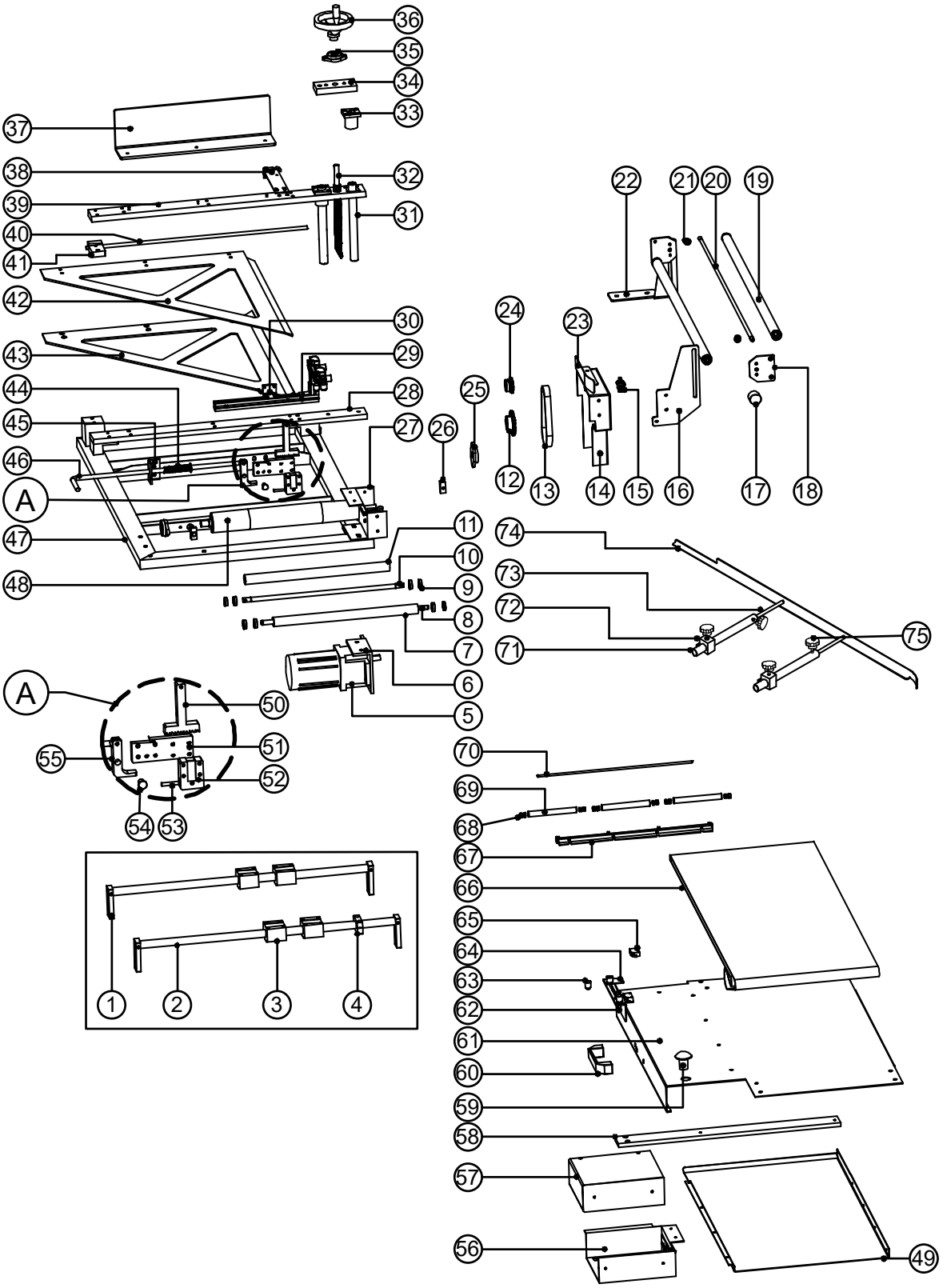
SUBV0001 Rack Assembly

Parts List – FM350-01-00 | 350 Rack Assembly

Item	Part Number	Description	Reference	Quantity
1	SUBV0017	VSA1825 Frame Weldment	FM350-01-01	1
2	VS180054	VSA Casters	B7070002	4
3	VS180055	M20 Leveling Foot	B7070001	4
4	VS180304	Exit Conveyor Support	FM350-01-02	1
5	VS180047	Enclosure Mount Plate, Left	2005-01-08	1
6	VS180048	Enclosure Mount Plate, Right	2005-01-09	1
7	VS180049	VSA1825 Electrical Enclosure	FM350-01-07	1
8	VS180050	Enclosure Front Cover	FM350-01-06	1
9	VS180051	Enclosure Top Cover	FM350-01-08	1
10	VS180056	Mount, HMI Display	FM350-01-09	1
11	VS180057	Frame Cover Panel, Infeed	FM350-01-03	1
12	VS180058	Frame Cover Panel, Exit	FM350-01-04	1
13	VS180059	Frame Cover Panel, Front	FM350-01-05	1
14	VS180060	Frame Cover Panel, Rear Right	FM350-01-10	1
15	VS180061	Frame Cover Panel, Rear Left	FM350-01-11	1
16	VS180062	Right Hinge, Sealing Cover	2005-04-03	1
17	VS180063	Left Hinge, Sealing Cover	2005-04-04	1
18	VS180064	Lift Strut Base	2005-04-09	1
19	VS180065	Strut Mount Bracket	2005-04-10	1
20	VS180066	Sheild Switch Mount Bracket	2005-04-11	1
21	VS180067	Rear Protective Glass	FM350-01-12	1
22	VS180068	Remote Enclosure	FM350-01-14	1
23	VS180069	Remote Enclosure Panel	FM350-01-15	1
24	VS180023			
25	VS180070	Emergency Stop (E-Stop) Button	B250B047	1
26	VS180304	Temperature Controller	B250B030	2
27	VS180071	Selector Switch	B250B046	1
28	VS180072	Disconnect	B3070022	1
29	VS180073	Indicator Light	B250B040	3
30	VS180074	Touch Screen	B250B034	1

SUBV0002 Infeed Conveyor Assembly

Partially-Exploded View – FM350-02-00 | 350 Front Conveyor Assembly



SUBV0002 Infeed Conveyor Assembly

Parts List – FM350-02-000 | 350 Front Conveyor Assembly

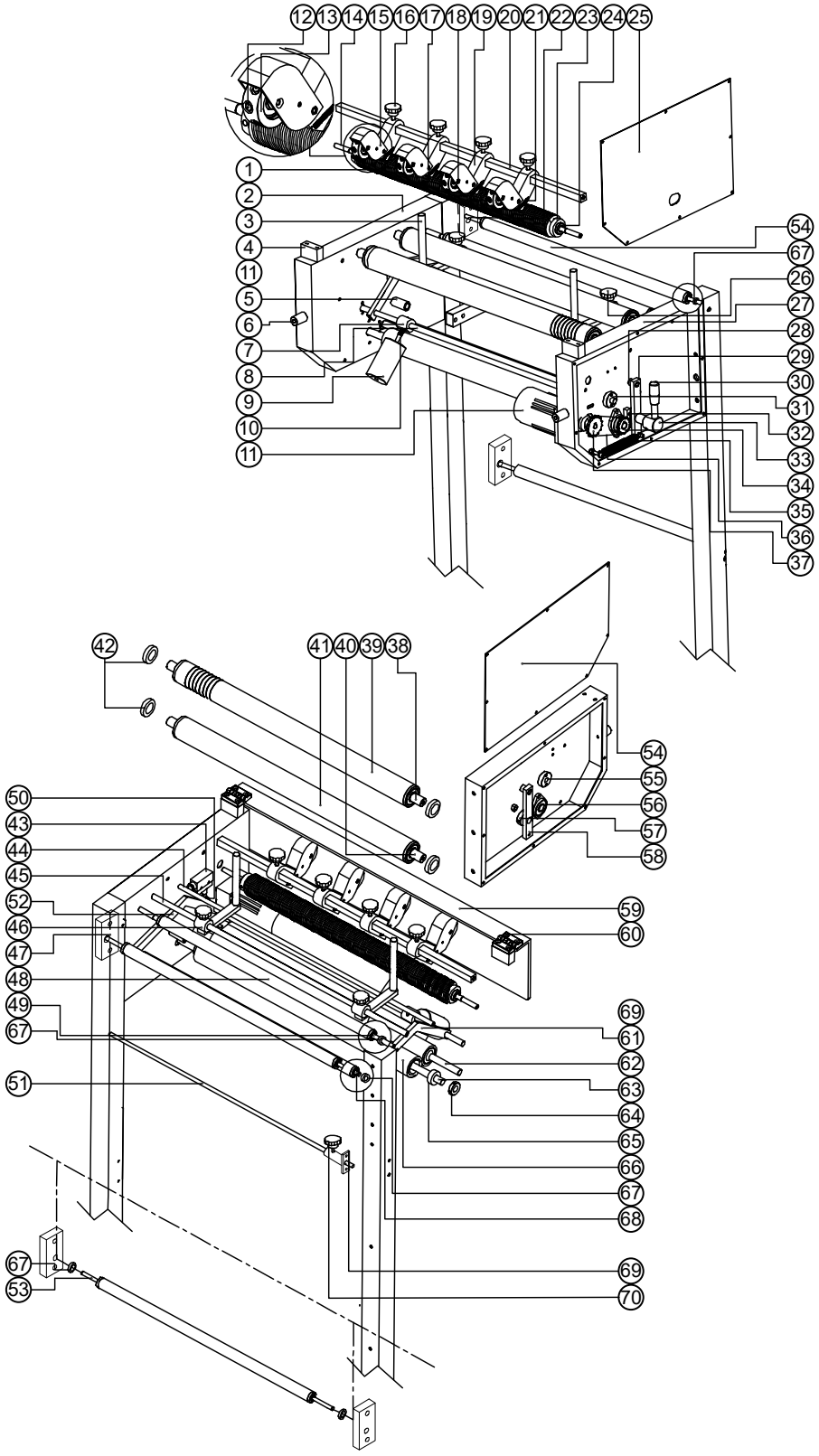
Item	Part Number	Description	Reference	Quantity
1	VS180075	Mounting Block, Linear Rail	2005-02-04	4
2	VS180076	Linear Rail, Optical Sensors	FM350-02-74	2
3	VS180077	Linear Bearing	SCS20UU	4
4	VS180078	Limit Stop, Linear Rail	2005-02-08	1
5	VS180079	Motor	B250B033	1
6	VS180080	Mount Plate, Infeed Motor	2005-02-71	1
7	VS180035	Roller	2005-02-33	1
8	VS180081	Roller Shaft	2005-02-34	1
9	4500171	Bearing	6900ZZ	8
10	VS180082	Tension Roller Shaft	2005-02-35	1
11	VS180035	Roller	2005-02-33	1
12	VS180083	Conveyor Drive Sprocket	2005-02-75	1
13	VS180032	Chain 06b	2530-01-17	1
14	VS180084	Chain Cover	2005-02-37	1
15	VS180085	Pneumatic Speed Control Valve	SC12-03	1
16	VS180086	Roller Mounting Plate, Slotted	2005-02-69	1
17	VS180087	Hand Knob, Film Rollers	2005-02-70	2
18	VS180088	Roller Link Plate	2005-02-68	2
19	VS180089	Tripod Roller	2005-02-65	2
20	VS180090	Tripod Roller Shaft	2005-02-67	2
21	4500169	Bearing (688-ZZ 8X16X5)	688ZZ	4
22	VS180251	Rear, Roller Mounting Plate, Slotted	2005-02-51	1
23	VS180091	Product Guide	2005-02-38	1
24	VS180036	Sprocket 12 Teeth	2005-02-32	1
25	VSA00084	Bearing	UFL002	2
26	VS180092	Belt Tension Block	2005-02-28	2
27	VS180093	Right Housing	2005-02-29	1
28	VS180094	Lower Triangle Mount Plate	2005-02-39	1
29	VS180095	Post-Horizontal Bracket IT	2005-02-58	1
30	VS180097	Vertical Bracket	2005-02-53	1

Item	Part Number	Description	Reference	Quantity
31	VS180098	Linear Shaft, Vertical Bracket	FM350-02-03	2
32	VS180099	Thread Shaft, Tripod Bracket	FM350-02-04	1
33	VS180100	Linear Bearing, Flanged. 20mm Shaft Dia.	LMK20UU	2
34	VS180101	Bearing Retainer Plate	2005-02-45	1
35	VS180102	Flange Bearing, 12mm Shaft Dia.	KFL001	2
36	VS180103	Folding Handwheel	12*100	1
37	VS180104	Protective Glass	2005-02-72	1
38	VS180105	Photo-Eye Bracket	2005-02-54	1
39	VS180106	Upper Triangle Mount Plate	2005-02-41	1
40	VS180107	Support Rod	2005-02-76	1
41	VS180108	Mount Block, Support Rod	2005-02-49	1
42	VS180109	Upper Triangle	2005-02-42	1
43	VS180110	Lower Triangle	2005-02-40	1
44	VS180111	Spring	2005-02-26	1
45	VS180112	Limit Shaft Support, Angle Iron	2005-02-24	
46	VS180113	Shaft, Rack Limit Hook	2005-02-25	1
47	VS180114	Frame, Infeed Belt	2005-02-01	1
48	VS180115	Drive Roller, Infeed Belt	2005-02-30	1
49	VS180116	Infeed Belt Lower Tray	2005-02-16	1
50	VS180117	T-Rack	2005-02-17	1
51	VS180118	Rack Limit Mount	2005-02-20	1
52	VS180119	Rack Mount Block	2005-02-18	1
53	VS180120	Bolt, Rack Mount	2005-02-19	1
54	VS180121	Pivot Shaft, Limit Hook	2005-02-23	1
55	VS180122	Rack Limit Hook	2005-02-21	1
56	VS180123	Left Housing	2005-02-27	1
57	VS180124	Left Housing Cover	2005-02-36	1
58	VS180125	Infeed Belt Retainer Plate	2005-02-11	1
59	VS180023	Emergency Stop Button	B250B047	1
60	VS180020	Handle	B5010009	1
61	VS180252	Belt Plate	2005-02-12	1
62	VS180253	Front Photo-Eye Bracket	2005-02-55	1
63	VS180254	M5 Nut	M 5 nut	11

Item	Part Number	Description	Reference	Quantity
64	VS180255	Horizontal Photo-Eye Bracket	2005-02-56	1
65	VS180024	Microswitch	B250B044	2
66	VS180256	Conveyor Belt	2005-02-52	6
67	VS180257	Fixing Plate	2005-02-14	1
68	4500188	Bearing	685ZZ	1
69	VS180126	Plastic Roller Cover	2005-02-77	59
70	VS180127	Roller Axle Shaft	2005-02-15	4
71	VS180128	Product Guide Mount Shaft	2005-02-62	1
72	VS180129	Product Guide Mount Block	2005-02-63	2
73	VS180130	Product Guide Shaft	2005-02-61	2
74	VS180131	Product Guide Plate	2005-02-60	1
75	VS180034	Five-Lobed Knob Handle	2005-02-64	4

SUBV0003 Film Cradle and Unwind Assembly

Partially-Exploded – 2 Views – FM350-03-00 | 350 Feed Box Assembly



SUBV0003 Film Cradle and Unwind Assembly

Parts List – FM350-03-00 350 | 350 Feed Box Assembly

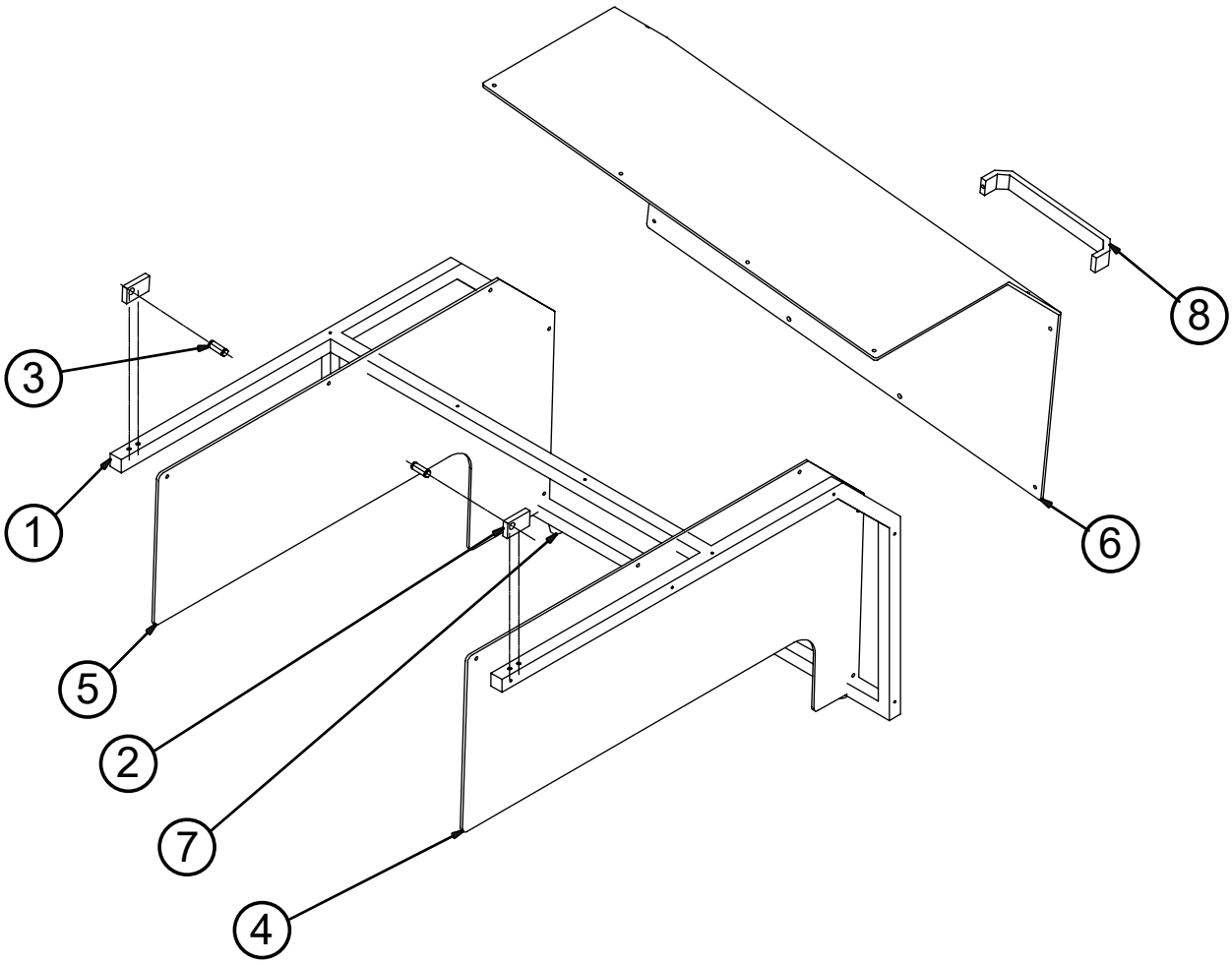
Item	Part Number	Description	Reference	Quantity
1	VS180132	Roller Brush	2005-03-13	1
2	VS180133	Left Frame, Film Feed	2005-03-02	1
3	VS180134	Baffle Short Shaft	2005-03-42	2
4	VS180135	Sheild Mount Block	2005-03-51	2
5	VS180136	Arm Stop Block	2005-03-32	2
6	VS180137	Film Cover Standoff	2005-03-53	2
7	VS180138	Slide Collar, Counterweight	2005-03-28	1
8	VS180139	Pivot Shaft, Counterweight	2005-03-24	1
9	VS180140	Counterweight	2005-03-30	1
10	VS180141	Counterweight Adjustment Shaft	2005-03-29	1
11	VS180142	Film Drive Motor	B250B031	1
12	VS180143	Perf. Needle	2005-03-12	32
13	VS180144	Perf Wheel	2005-03-10	4
14	VS180145	Shaft, Brush Roller	2005-03-07	1
15	VS180146	Perf Wheel Cover	2005-03-15	4
16	VS180034	Five-Star Handle	2005-02-64	4
17	VS180147	Shaft, Perf Wheel Cover	2005-03-16	4
18	VS180148	Shaft, Perf Wheel	2005-03-11	4
19	VS180149	Mount, Perf Wheel	2005-03-14	4
20	VS180150	Perf Wheel Mount Shaft	2005-03-06	1
21	VS180151	Spring, Perf Wheel Cover	2005-03-54-01	8
22	VS180033	Three Rollers	2005-03-37	1
23	VS180152	Hanger, Perf Rollers	2005-03-09	2
24	4500170	Bearing	6800 ZZ	2
25	VS180153	Right Cover Plate, Film Frame	2005-03-49	1
26	VS180154	Five-Star Handle	2005-03-60	2
27	VS180155	Right Feed Frame	2005-03-01	1
28	VS180156	Fixed Bushing	2005-03-21	2
29	VS180044	Fix The Connecting Rod	2005-03-22	1
30	VS180157	Straight Handle	2005-03-61	1

Item	Part Number	Description	Reference	Quantity
31	VS180045	Straight Shaft Fixed Seat	2005-03-25	1
32	VS180158	Limit Block	2005-03-27	2
33	VS180159	Handle Base	2005-03-48	1
34	VS180159	Sprocket 12 Teeth	2005-02-32	1
35	VS180160	Spring	2005-03-59	1
36	VS180032	Chain 06b	2530-01-17	
37	VS180161	Sprocket 15 Teeth	2005-03-47	1
38	VS180043	Unloading Roller Shaft	2005-03-05	1
39	VS180162	Unloading Drum Two	2005-03-04	1
40	VS180043	Unloading Roller Shaft	2005-03-05	1
41	VS180163	Stripper Drum One	2005-03-03	1
42	VS180303	Bearing	6004	4
43	VS180026	Induction Switch	B250B015	1
44	VS180164	Film Width Bar Support Shaft	2005-03-39	1
45	VS180165	Film Width Bar Pivot Shaft	2005-03-38	1
46	VS180166	Collar, Film Width Bar	2005-03-40	2
47	VS180167	Roller Housing	2005-03-36	4
48	VS180168	Roller	2005-03-33	4
49	VS180169	Roller Two	2005-03-35	1
50	VS180300	Eccentricity Wheel	2005-03-54	1
51	VS180170	Film Rod	2005-03-46	1
52	VS180046	Bracket(Symmetrical)	2005-03-31	1
53	VS180033	Three Rollers	2005-03-37	1
54	VS180171	Left Cover Plate Of Film Feeding Frame	2005-03-50	1
55	VS180045	Straight Shaft Fixed Seat	2005-03-25	1
56	VS180301	Bearing	VFL002	2
57	VS180302	Limit Wheel	2005-03-20	2
58	VS180044	Fix The Connecting Rod	2005-03-22	1
59	VS180172	Rear Shield, Perf Area	2005-03-52	1
60	VS180173	Hinge, Rear Shield	B51100021	2
61	VS180046	Counter Weight Bracket	2005-03-31	1
62	VS180174	Drive Roller, Film Feed	2005-03-17	1
63	VS180175	Driven Rubber Feed Roller	2005-03-19	1

Item	Part Number	Description	Reference	Quantity
64	VS180176	Limit Block	2005-03-23	2
65	5001725	Bearing	6002 ZZ	2
66	VS180177	Driven Feed Roller	2005-03-18	1
67	4500169	Bearing (688-ZZ 8X16X5)	688 ZZ	8
68	VS180033	Three Rollers	2005-03-37	1
69	VS180178	Mount, Film Rod	2005-03-45	1
70	VS180179	Hand Knob, M8 X 40 X 20	M8*40*20	1

SUBV0004 Safety Cover Assembly

Exploded View – FM350-04-00 | 350 Safety Cover Assembly



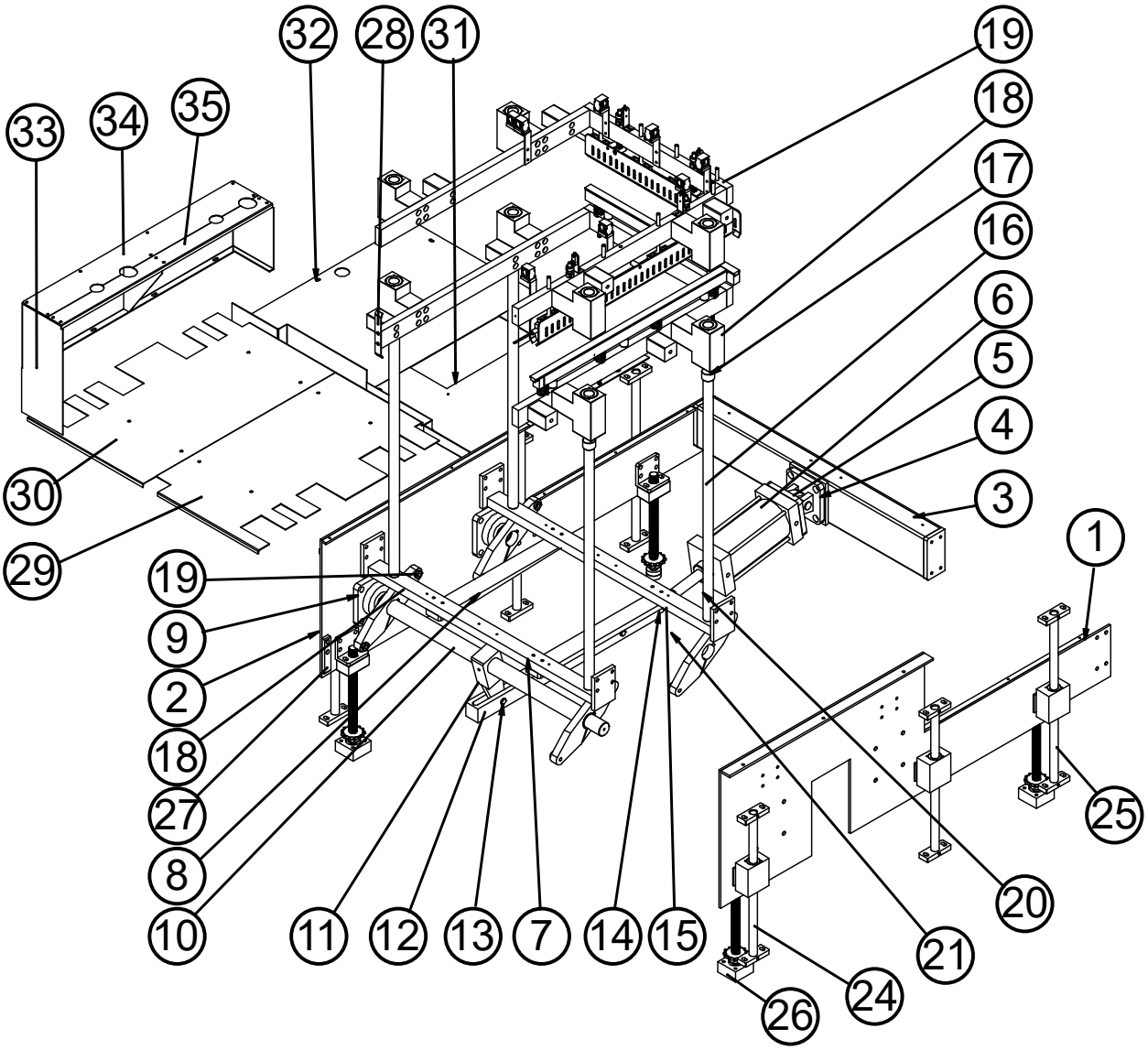
SUBV0004 Safety Cover Assembly

Parts List – FM350-04-00 | 350 Safety Cover Assembly

Item	Part Number	Description	Reference	Quantity
1	VS180180	FRAME, SEAL AREA COVER	FM350-04-01	1
2	VS180181	PIVOT BLOCK, SEAL COVER	2005-04-02	2
3	VS180182	PIN, SHIELD HINGE	2005-04-05	2
4	VS180183	LEFT PANEL, SEAL AREA SHIELD	FM350-04-02	1
5	VS180184	RIGHT PANEL, SEAL AREA SHIELD	FM350-04-04	1
6	VS180185	FRONT PANEL, SEAL AREA SHIELD	FM350-04-03	1
7	VS180186	RUBBER PAD, SEAL AREA SHIELD	231k478238573	2
8	VS180020	HANDLE, SEAL AREA SHIELD	B5010009	1

SUBV0005 Sealing Components

Partially-Exploded View – FM350-05-00 | 350 Sealing Components



SUBV0005 Sealing Components

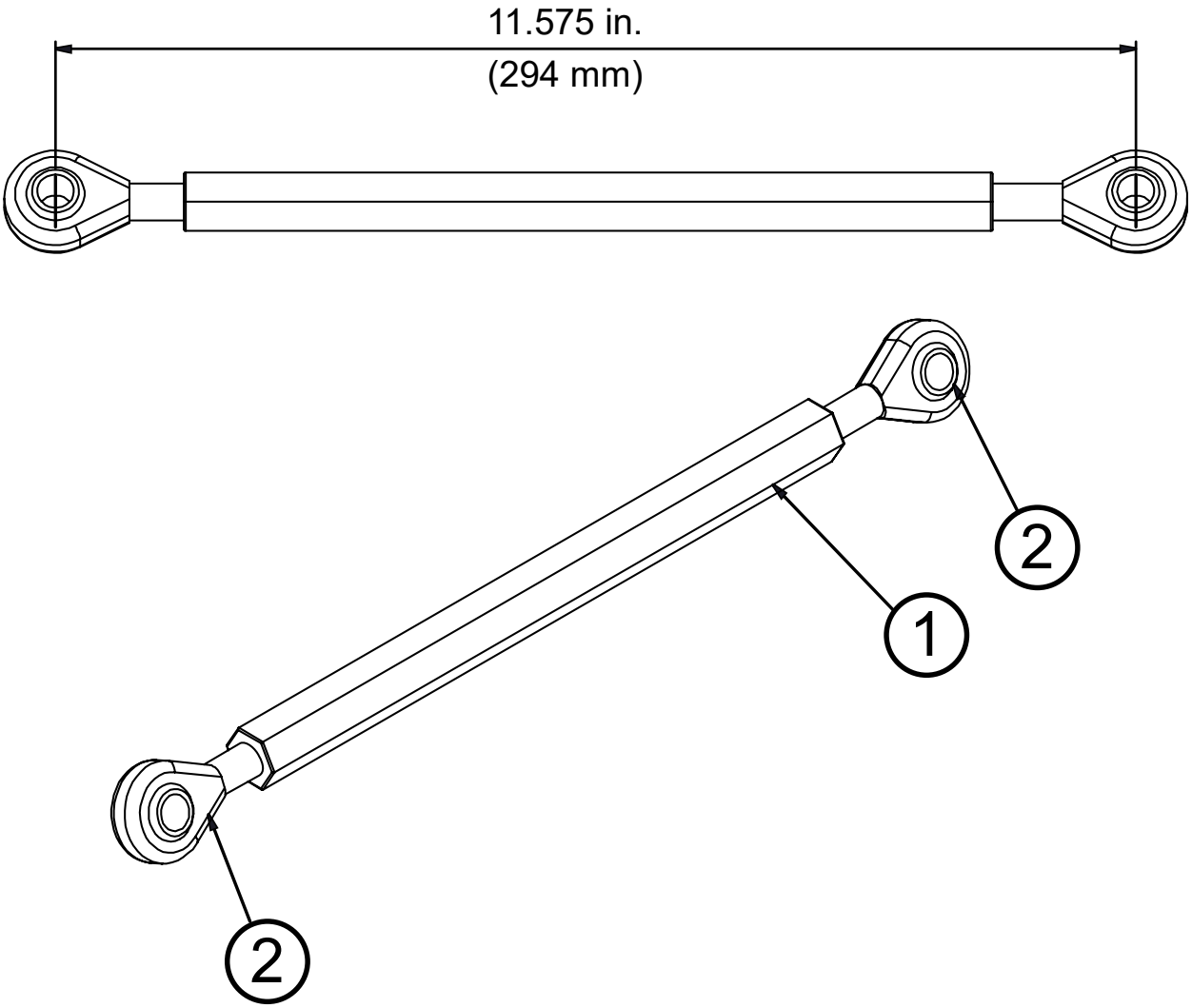
Parts List — FM350-05-00 | 350 Sealing Components

Item	Part Number	Description	Reference	Quantity
1	VS180187	Seal Head Front Lifting Plate	FM350-05-01	1
2	VS180188	Seal Head Rear Lifting Plate	FM350-05-02	1
3	VS180189	Base Support Mount	FM350-05-03	1
4	VS180190	Actuator Clevis Base	B350B010-CB100	1
5	VS180191	Actuator Pivot Base	B350B010-CA100	1

Item	Part Number	Description	Reference	Quantity
6	VS180192	Pneumatic Actuator, 100mm Bore × 150mm Stroke	B350B010-SC100X150S	1
7	VS180193	Front And Rear Lift Link Bar	FM350-05-04	2
8	VS180194	Lift Link Connecting Bar	FM350-05-05	2
9	VS180195	Flange Bearing	SF207- UC207	4
10	VS180196	Seal Lift Crank Shaft	FM350-05-06	2
11	VS180197	Seal Lift Crank Link	FM350-05-07	2
12	VS180198	Actuator Crank Link	FM360-05-09	1
13	VS180199	Crank Arm Pivot Pin	FM360-05-08	2
14	VS180200	Actuator Clevis Joint	FM360-05-10	1
15	VS180201	Actuator Clevis Joint Pin	FM360-05-11	1
16	VS180202	Guide Rod, Seal Head	FM350-05-08	4
17	VS180203	Guide Rod End Cap	FM360-05-13	4
18	VS180204	Swing Arm	FM360-05-14	4
19	VS180205	Swing Arm Bushing	FM350-05-11	8
20	SUBV0033	Vsa1825 Short Connecting Rod	FM350-05-0001	4
21	SUBV0034	Vsa1825 Long Connecting Rod	FM350-05-0002	4
22	SUBV0018	Seal Bed Frame	FM350-05-0003	1
23	SUBV0019	Seal Knife Frame	FM350-05-0004	1
24	SUBV0022	Short Guide Shaft, Seal Bed	FM350-05-0007	2
25	SUBV0023	Long Guide Shaft, Seal Bed	FM350-05-0008	4
26	SUBV0024	Seal Bed Lift Screw	FM350-05-0009	4
27	VS180206	Seal Head Limit Block	FM350-05-21	1
28	VS180207	Seal Head Limit Bracket	FM360-05-68	1
29	VS180208	Cover Plate Two	FM350-05-23	1
30	VS180209	Cover Plate One	FM350-05-22	1
31	VS180210	Cover Plate Four	FM350-05-25	1
32	VS180211	Cover Plate Three	FM350-05-24	1
33	VS180212	Protective Cover	FM350-05-26	1
34	VS180213	Upper Cover Plate One	FM350-05-27	1
35	VS180214	Upper Cover Plate Two	FM350-05-28	1

SUBV0033 Short Connecting Rod

Assembled – 2 Views – FM350-05-0001 | 350 Short Connecting Rod



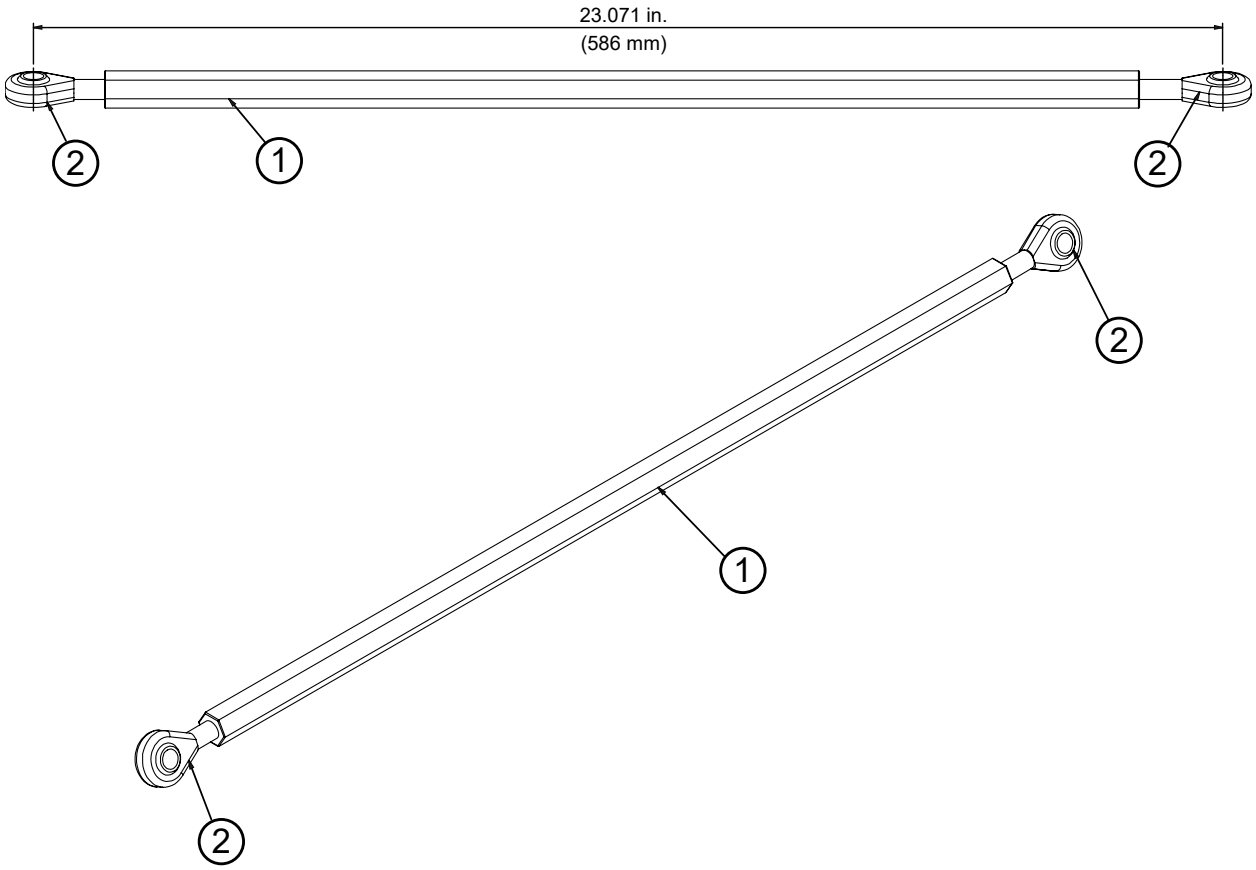
SUBV0033 Short Connecting Rod

Parts List – FM350-05-0001 | 350 Short Connecting Rod

Item	Part Number	Description	Reference	Quantity
1	VS180215	SHORT CONNECTING ROD	FM350-05-09	1
2	VS180002	ROD END BEARING (SA10TK)	SA10TK	2

SUBV0034 Long Connecting Rod

Assembled – 2 Views – FM350-05-0002 | 350 Long Connecting Rod



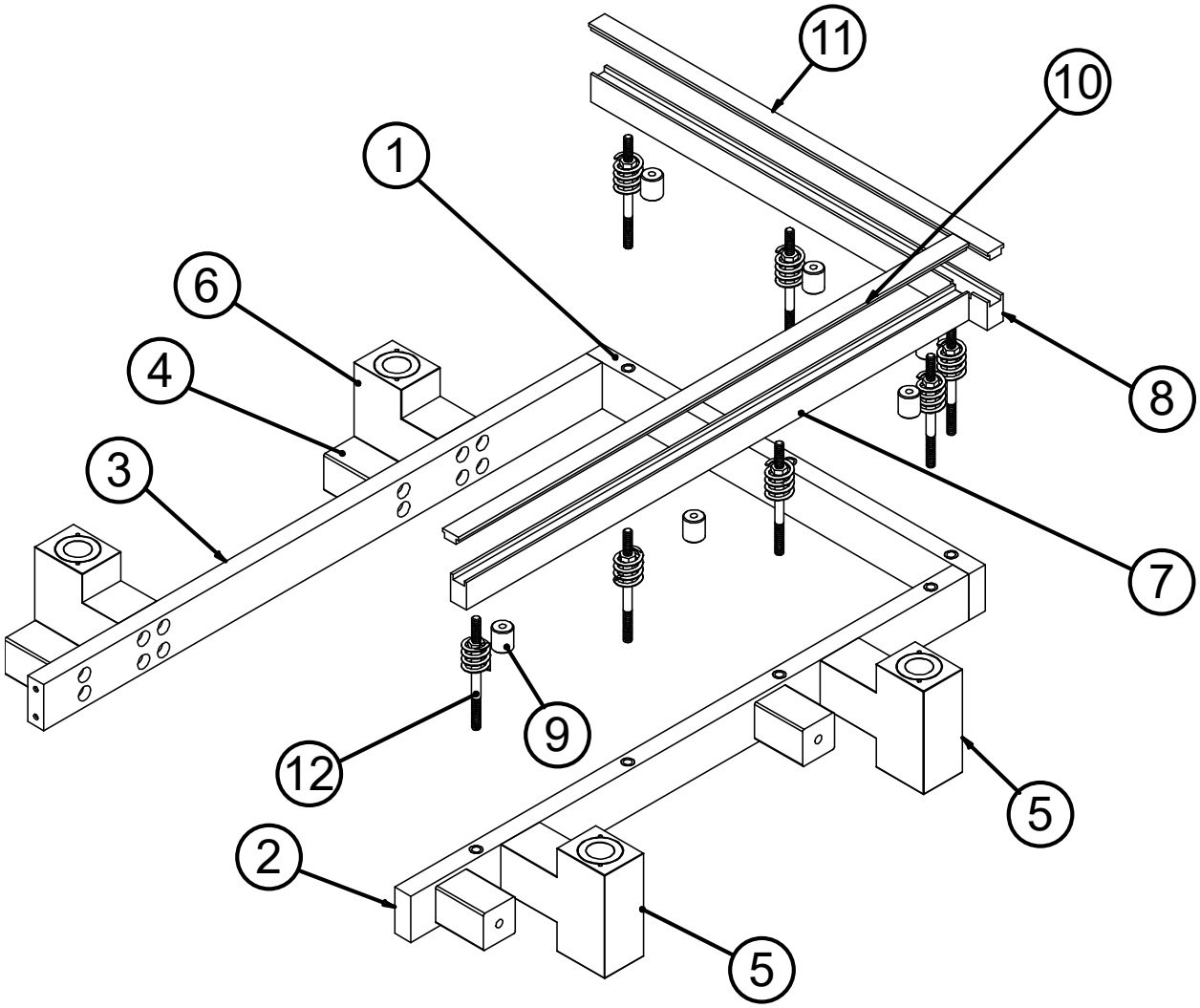
SUBV0034 Long Connecting Rod

Parts List – FM350-05-0002 | 350 Long Connecting Rod

Item	Part Number	Description	Reference	Quantity
1	VS180216	LONG CONNECTING ROD	FM350-05-10	1
2	VS180002	ROD END BEARING (SA10TK)	SA10TK	2

SUBV0018 Seal Bed Frame

Partially-Exploded View – FM350-05-0003 | 350 Lower Tool Holder



SUBV0018 Seal Bed Frame

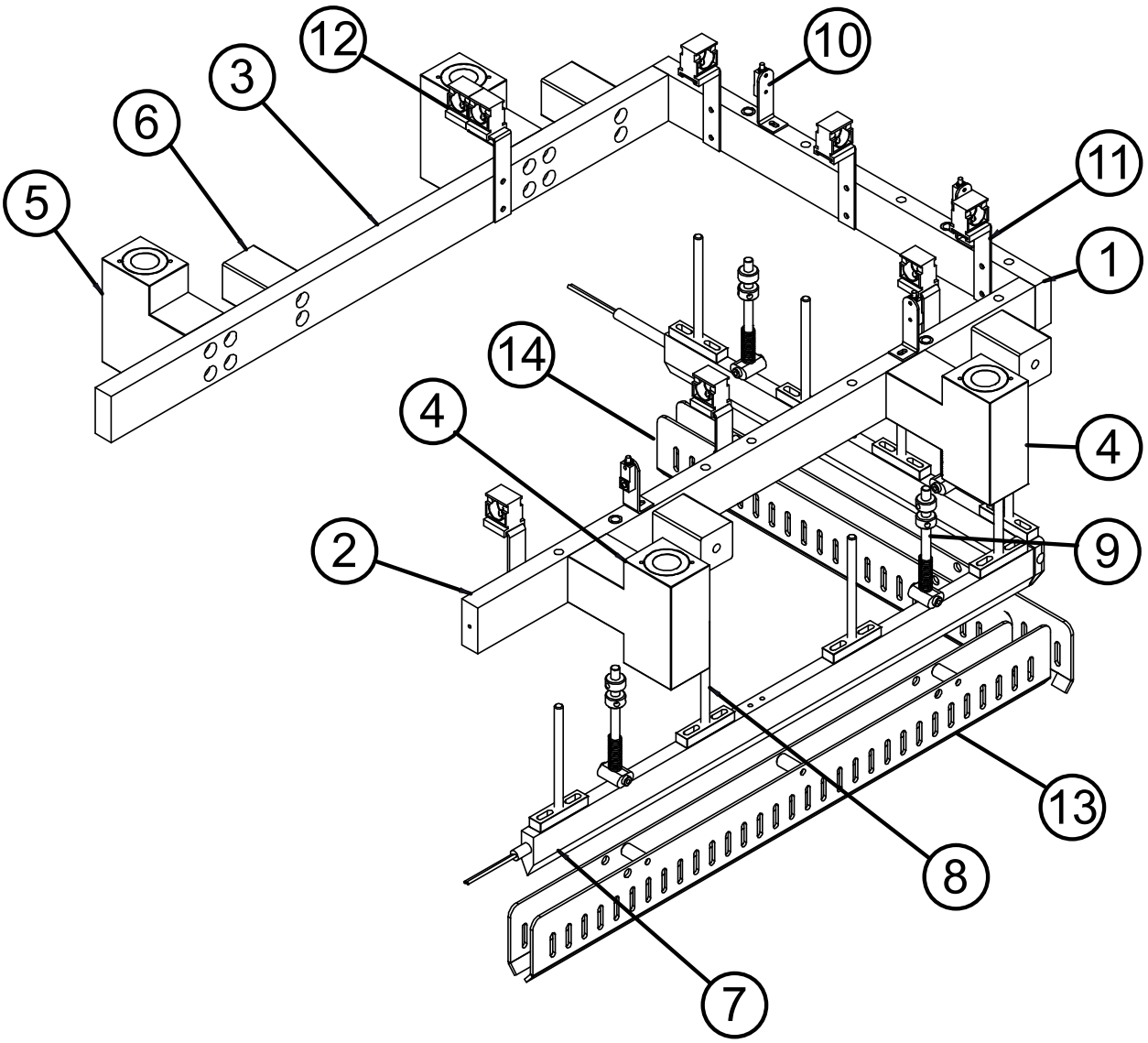
Parts List – FM350-05-0003 | 350 Lower Tool Holder

Item	Part Number	Description	Reference	Quantity
1	VS180218	Lower Seal Frame Cross Bar	FM350-05-12	1
2	VS180219	Lower Seal Frame Front Bar	FM360-05-17	1
3	VS180220	Lower Seal Frame Rear Bar	FM360-05-18	1
4	VS180010	Connecting Rod Seat	FM360-05-20	4
5	SUBV0020	Vsa1825 Front Lift Bracket	FM350-05-0005	2
6	SUBV0021	Vsa1825 Rear Lift Bracket	FM350-05-0006	2
7	VS180220	Long Sponge Rubber Seat	FM350-05-13	1

Item	Part Number	Description	Reference	Quantity
8	VS180221	Short Sponge Rubber Seat	FM350-05-14	1
9	VS180222	Sponge Rubber Locating Bushing	FM360-05-39	6
10	VS180223	Long Silicone Strip	FM350-05-15	1
11	VS180224	Short Silicone Strip	2005-05-4 8	1
12	VS180225	Compression Screw	FM360-05-26	7

SUBV0019 Seal Knife Frame

Partially-Exploded View – FM350-05-0004 | 350 Upper Tool Holder



SUBV0019 Seal Knife Frame

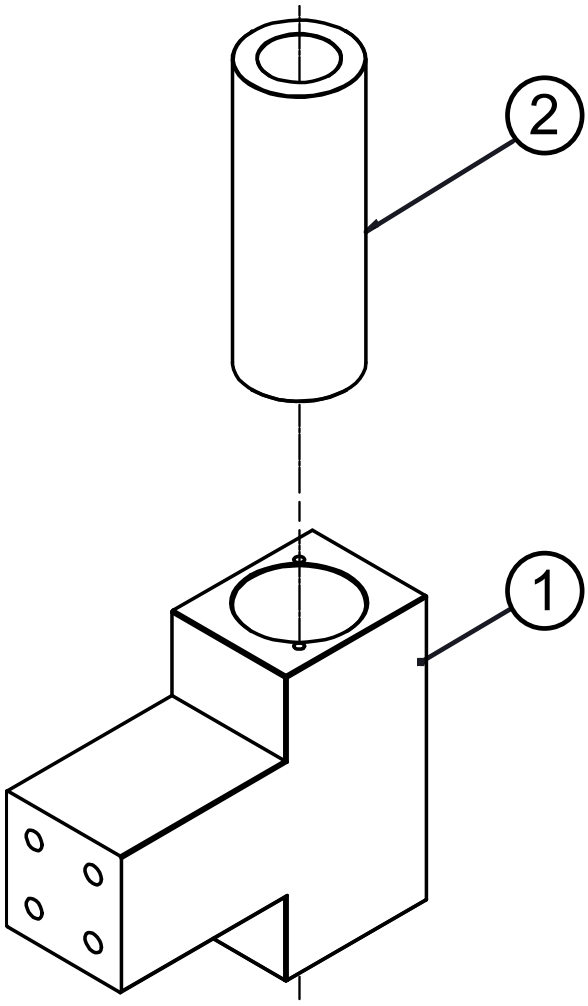
Parts List – FM350-05-0004 | 350 Upper Tool Holder

Item	Part Number	Description	Reference	Quantity
1	VS180226	UPPER SEAL FRAME CROSS BAR	FM350-05-16	1
2	VS180227	UPPER SEAL FRAME FRONT BAR	FM360-05-30	1
3	VS180228	UPPER SEAL FRAME REAR BAR	FM360-05-29	1
4	SUBV0020	VSA1825 FRONT LIFT BRACKET	FM350-05-0005	2
5	SUBV0021	VSA1825 REAR LIFT BRACKET	FM350-05-0006	2
6	VS180010	CONNECTING ROD SEAT	FM360-05-20	4

Item	Part Number	Description	Reference	Quantity
7	SUBV0025	VSA1825 SEALING KNIFE	FM350-05-00010	1
8	SUBV0026	VSA1825 KNIFE HANGER	FM350-05-00011	8
9	SUBV0027	VSA1825 GUARD DEPTH LIMIT	FM350-05-00012	4
10	SUBV0028	VSA1825 GUARD SENSOR	FM350-05-00013	4
11	SUBV0029	VSA1825 LINE CARD	FM350-05-00014	6
12	SUBV0030	VSA1825 LONG LINE CARD	FM350-05-00015	1
13	SUBV0031	VSA1825 LONG KNIFE GUARD	FM350-05-00016	1
14	SUBV0032	VSA1825 SHORT KNIFE GUARD	FM350-05-00017	1

SUBV0020 Front Lift Bracket

Exploded View – FM350-05-0005 | 350 Front Lift



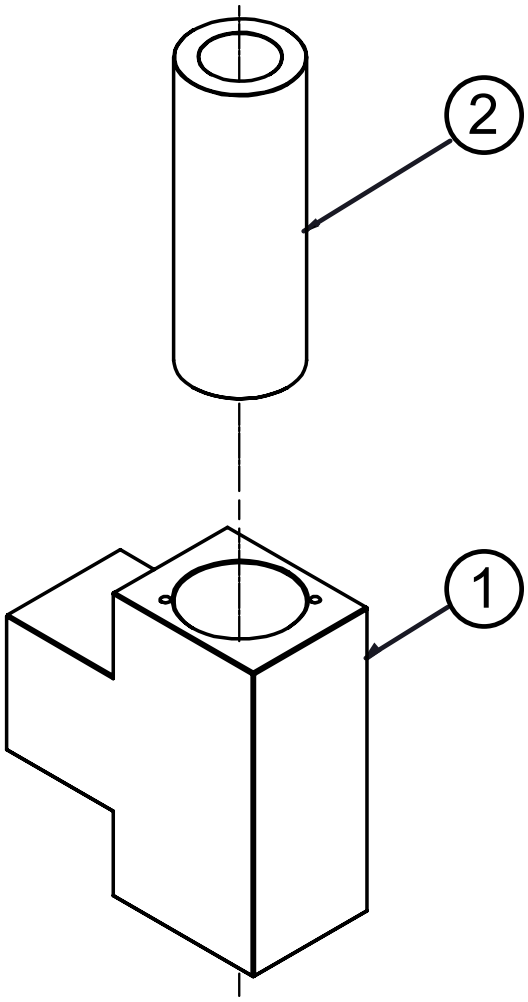
SUBV0020 Front Lift Bracket

Parts List – FM350-05-0005 | 350 Front Lift

Item	Part Number	Description	Reference	Quantity
1	VS180229	VSA1825 Front Lift Seat	FM360-05-21	1
2	VS180003	Linear Bearing, 25mm Dia. Shaft	LM25LUU	1

SUBV0021 Rear Lift Bracket

Exploded View – FM350-05-006 | 350 Rear Lift Seat



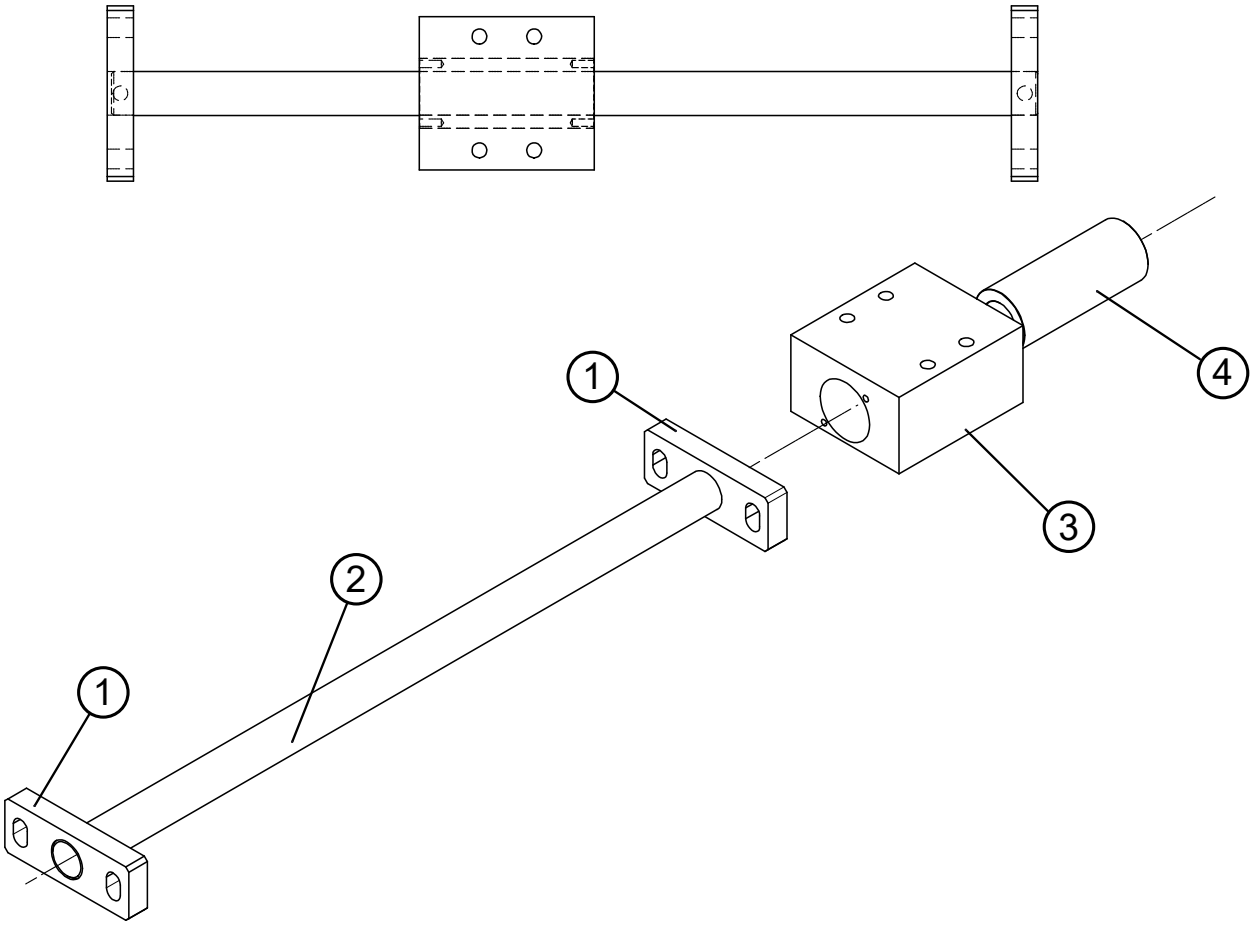
SUBV0021 Rear Lift Bracket

Parts List – FM350-05-0006 | 350 Rear Lift Seat

Item	Part Number	Description	Reference	Quantity
1	VS180009	VSA1825 REAR LIFT SEAT	FM360-05-23	1
2	VS180003	LINEAR BEARING, 25MM DIA. SHAFT	LM25LUU	1

SUBV0022 Short Guide Shaft, Seal Bed

Partially-Exploded – 2 Views – FM350-05-0007 | 350 Short Lift Shaft



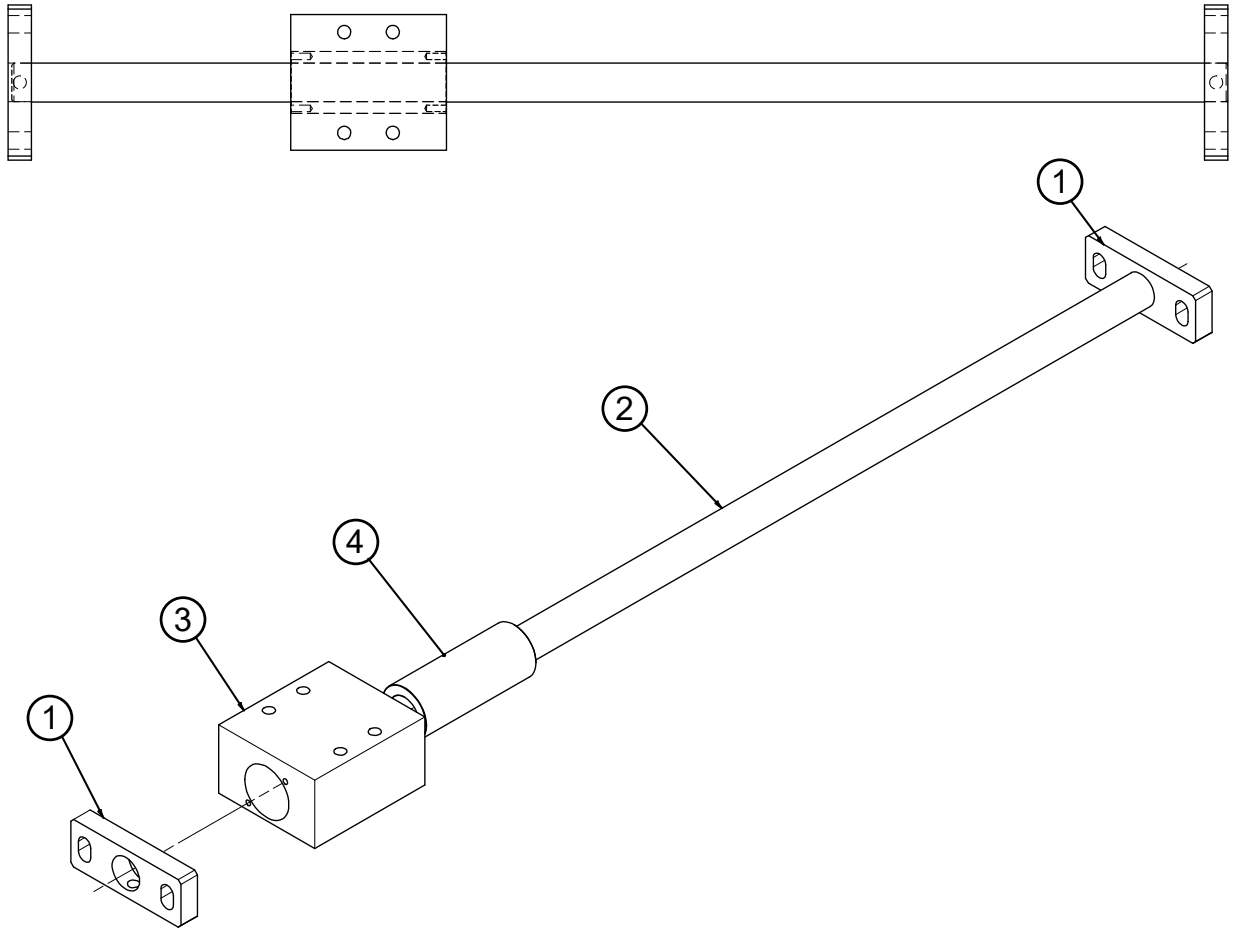
SUBV0022 Short Guide Shaft, Seal Bed

Parts List – FM350-05-0007 | 350 Short Lift Shaft

Item	Part Number	Description	Reference	Quantity
1	VS180009	Lift Shaft Seat	FM360-05-41	2
2	VS180231	Linear Shaft, Lift	FM350-05-18	1
3	VS180008	Lifting Shaft Guide Seat	FM360-05-42	1
4	VS180004	Linear Bearing, 20mm Dia. Shaft	LM20LUU	1

SUBV0023 Long Guide Shaft, Seal Bed

Partially-Exploded – 2 Views – FM-350-05-0008 | 350 Long Shaft



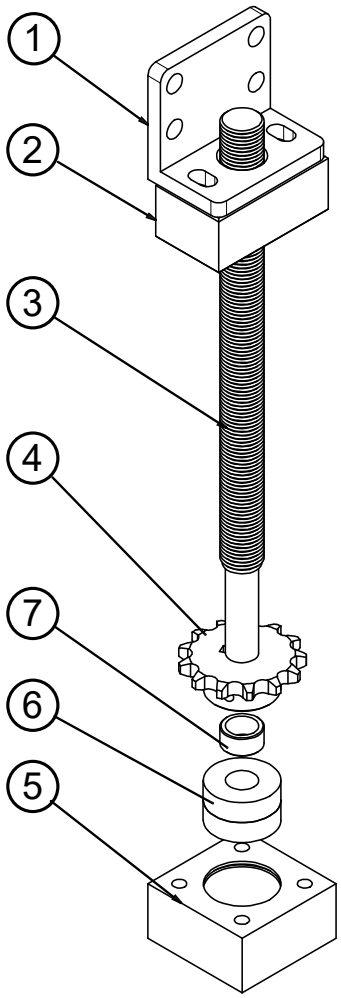
SUBV0023 Long Guide Shaft, Seal Bed

Parts List – FM-350-05-0008 | 350 Long Shaft

Item	Part Number	Description	Reference	Quantity
1	VS180009	Lift Shaft Seat	FM360-05-41	2
2	VS180232	VSA1825 Width Adj. Shaft	FM350-05-17	1
3	VS180008	Lifting Shaft Guide Seat	FM360-05-42	1
4	VS180004	Linear Bearing, 20mm Dia. Shaft	LM20LUU	1

SUBV0024 Seal Bed Lift Screw

Partially-Assembled View – FM350-05-0009 | 350 Lift Screw



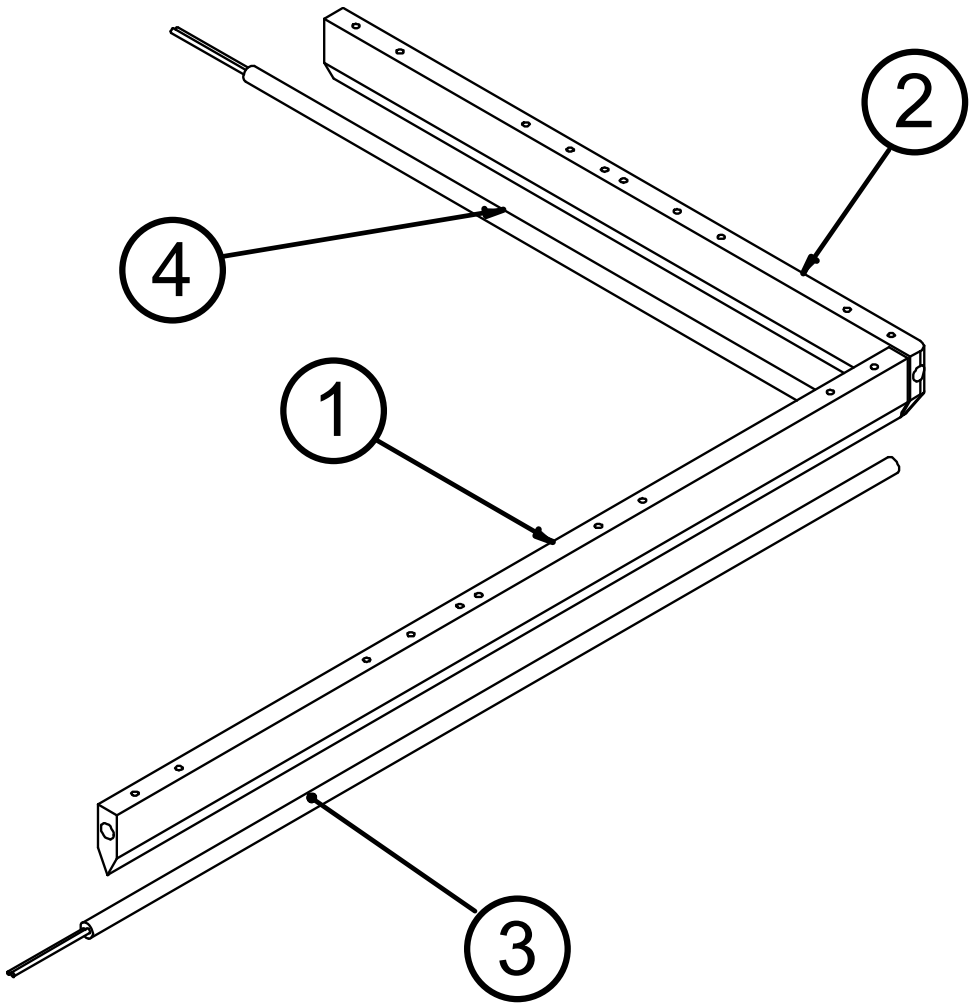
SUBV0024 Seal Bed Lift Screw

Parts List – FM350-050-009 | 350 Lift Screw

Item	Part Number	Description	Reference	Quantity
1	VS180233	Lift Angle Bracket	FM360-05-44	1
2	VS180234	Lift Nut	FM360-05-45	1
3	VS180235	Threaded Rod, Lift	FM360-05-46	1
4	VS180236	13 Tooth Sprocket	FM360-05-51	1
5	VS180237	Bearing Housing, Lift Shaft	FM360-05-47	1
6	5001852	Bearing 15X35X11	6202- 2Z	2
7	VS180343	Sprocket Spacer	FM350-05-19	1

SUBV0025 Sealing Knife

Partially-Exploded View – FM350-05-00010 | 350 Sealing Knife



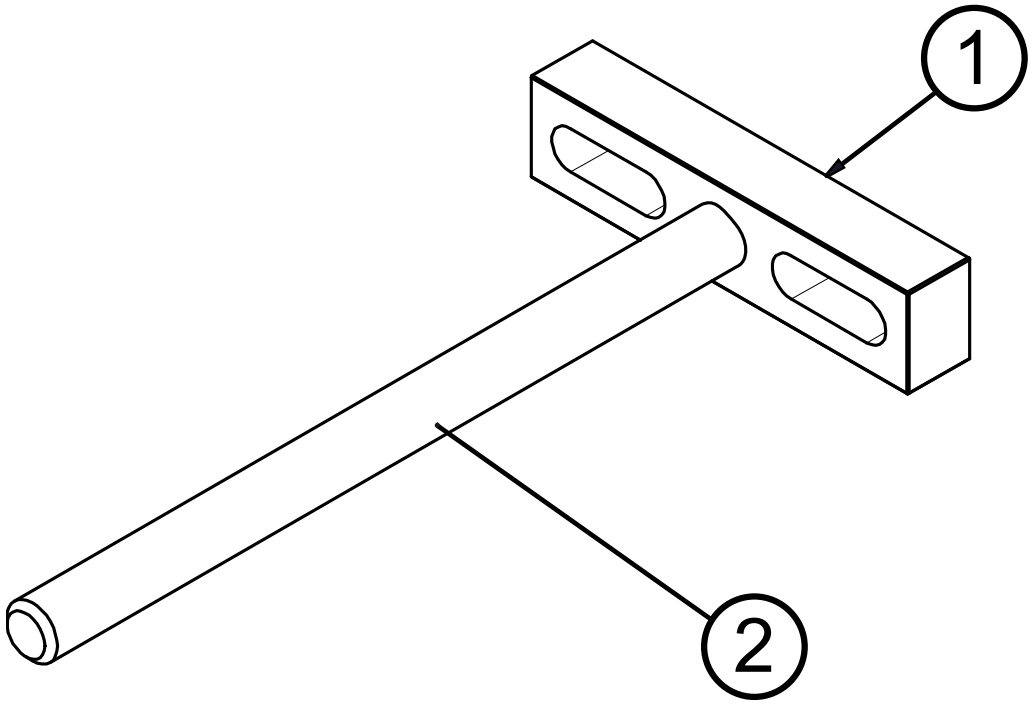
SUBV0025 Sealing Knife

Parts List – FM350-05-00010 | 350 Sealing Knife

Item	Part Number	Description	Reference	Quantity
1	VS180344	VSA1825 Long Sealing Knife	FM360-05-32	1
2	VS180345	VSA1825 Short Sealing Knife	2005-05-25	1
3	VS180333	VSA1825 Long Heater Rod	B350B002	1
4	VS180346	VSA1825 Short Heater Rod	B250B003	1

SUBV0026 Knife Hanger

Assembled View – FM350-05-00011 | 350 Sealing Knife Fixed Block



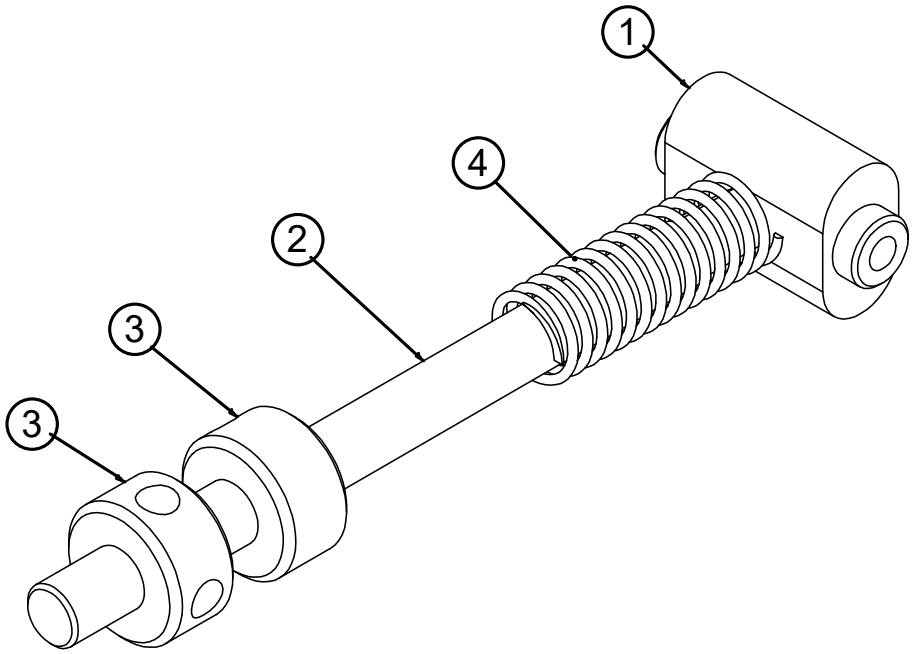
SUBV0026 Knife Hanger

Parts List – FM350-05-00011 | 350 Sealing Knife Fixed Block

Item	Part Number	Description	Reference	Quantity
1	VS180347	Seal Knife Mount	2005-05-30B	1
2	VS180348	Screw M8	2005-05-31	1

SUBV0027 Guard Depth Limit

Assembled View – FM350-05-00012 | 350 Guard Plate Limit



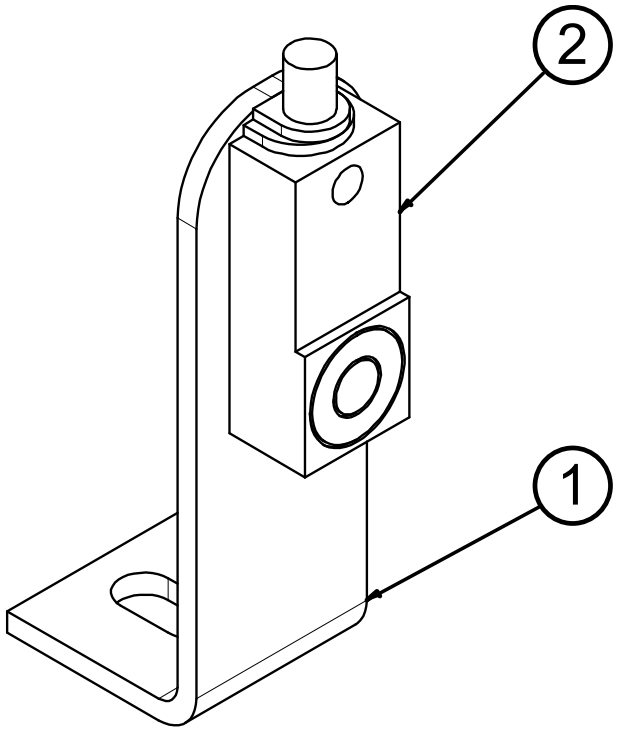
SUBV0027 Guard Depth Limit

Parts List – FM350-05-00012 | 350 Guard Plate Limit

Item	Part Number	Description	Reference	Quantity
1	VS180349	Guard Plate Adjustment Block	2005-05-33	1
2	VS180350	Guard Plate Adjustment Shaft	2005-05-32	1
3	VS180247	Guard Plate Limit Collar	2005-05-34	2
4	VS180352	Spring	2005-05- 4 5	1

SUBV0028 Guard Sensor

Assembled View – FM350-05-00013 | 350 Guard Plate Sensing



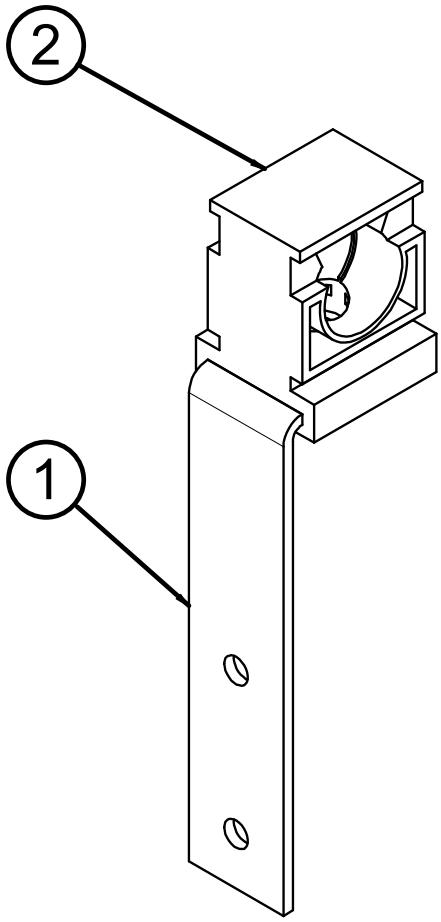
SUBV0028 Guard Sensor

Parts List – FM350-05-00013 | 350 Guard Plate Sensing

Item	Part Number	Description	Reference	Quantity
1	VS180249	Sensor Mount	2005-05-11	1
2	VS180025	Proximity Switch	B250B024	1

SUBV0029 Cable Support Retention Clip, Single

Assembled View – FM350-05-00014 | 350 Line Cards



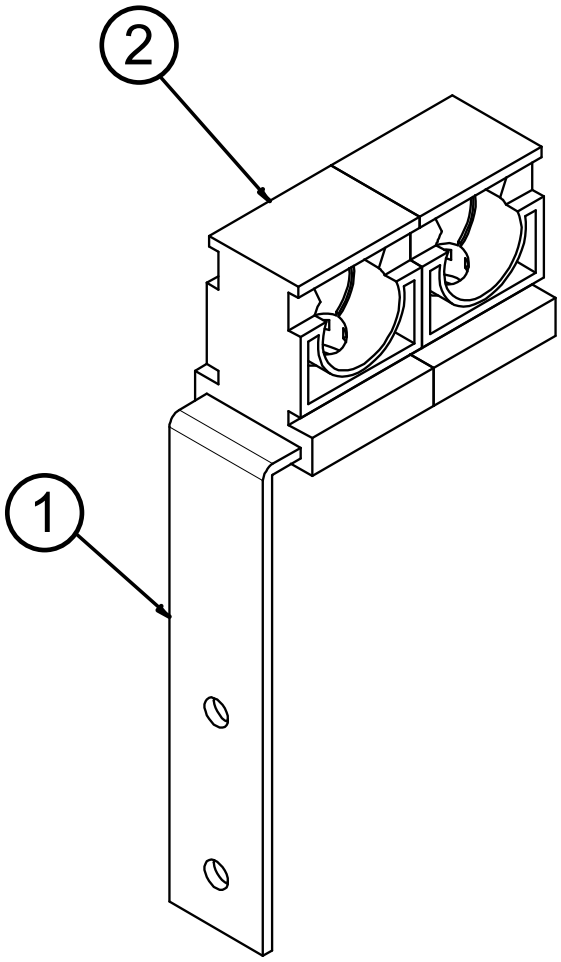
SUBV0029 Cable Support Retention Clip, Single

Parts List – FM350-05-00014 | 350 Line Cards

Item	Part Number	Description	Reference	Quantity
1	VS180250	Wire Clip Bracket	2005-05-10	1
2	VS180021	Wire Clip	B350B10400	1

SUBV0030 Cable Support Retention Clip, Dual

Assembled View – FM350-05-00015 | 350 Long Line Card



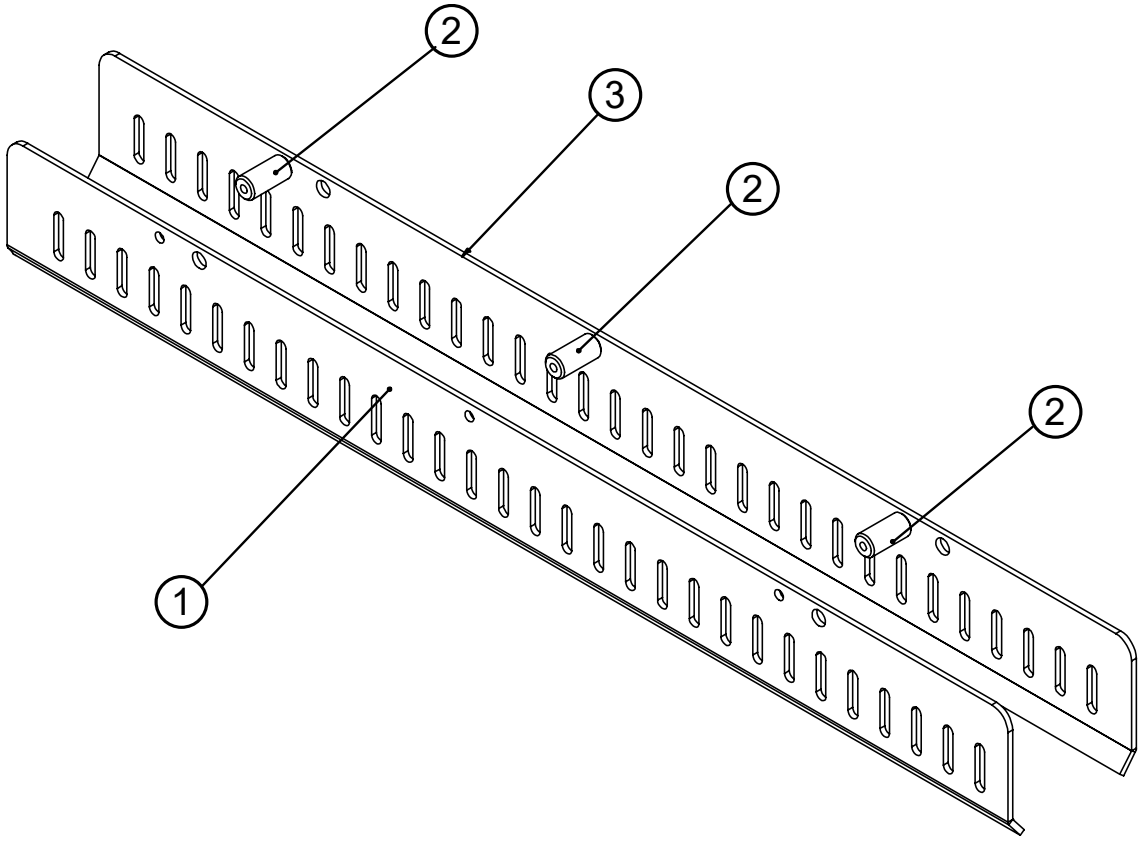
SUBV0030 Cable Support Retention Clip, Dual

Parts List – FM350-05-00015 | 350 Long Line Card

Item	Part Number	Description	Reference	Quantity
1	VS180355	Duplex Wire Clip Bracket	FM360-05-34	1
2	VS180021	Wire Clip	B350B10400	2

SUBV0031 Long Knife Guard

Exploded View – FM350-05-00016 | 350 Long Knife Guard Plate



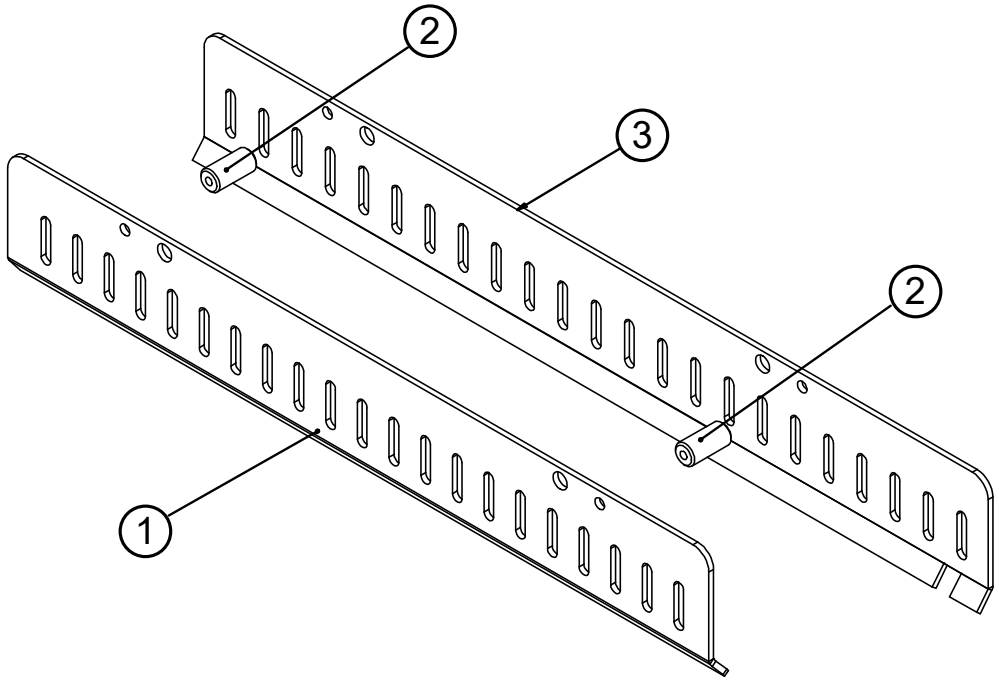
SUBV0031 Long Knife Guard

Parts List – FM350-05-00016 | 350 Long Knife Guard Plate

Item	Part Number	Description	Reference	Quantity
1	VS180356	Inner Guard, Long Knife	FM360-05-35	1
2	VS180037	Knife Guard Spacer	2005-0 5-36	3
3	VS180357	Outer Guard, Long Knife	FM360-05-36	1

SUBV0032 Short Knife Guard

Exploded View – FM350-05-00017 | 350 Blade Guard Plate



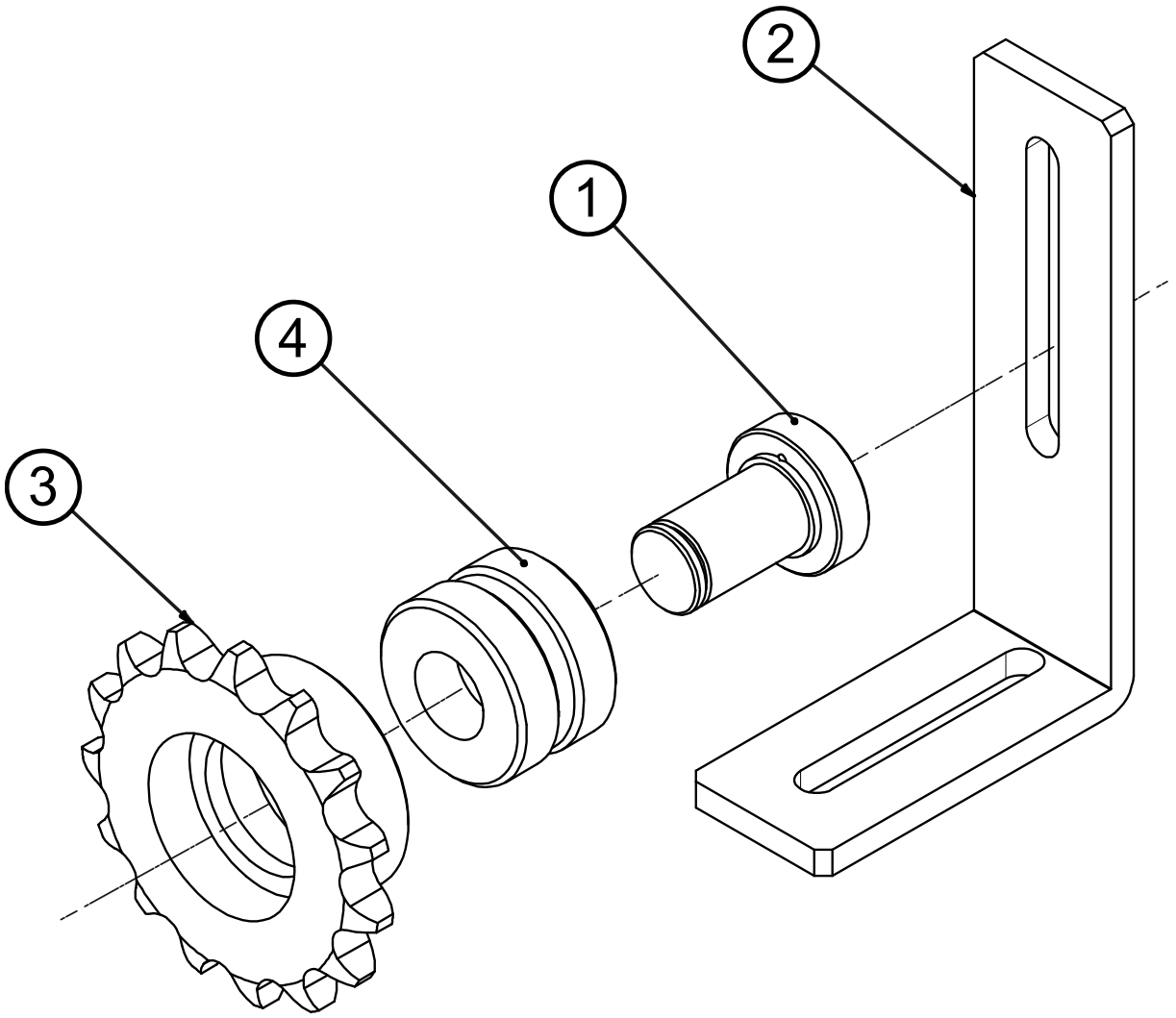
SUBV0032 Short Knife Guard

Parts List – FM350-05-0017 | 350 Blade Guard Plate

Item	Part Number	Description	Reference	Quantity
1	VS180358	Inner Guard, Short Knife	2005-05-28	1
2	VS180037	Knife Guard Spacer	2005-05-36	2
3	VS180359	Outer Guard, Short Knife	FM350-05-33	1

SUBV0006 Chain Tensioner Assembly

Exploded View – FM350-05-00018 | 350 Tension in the Lift



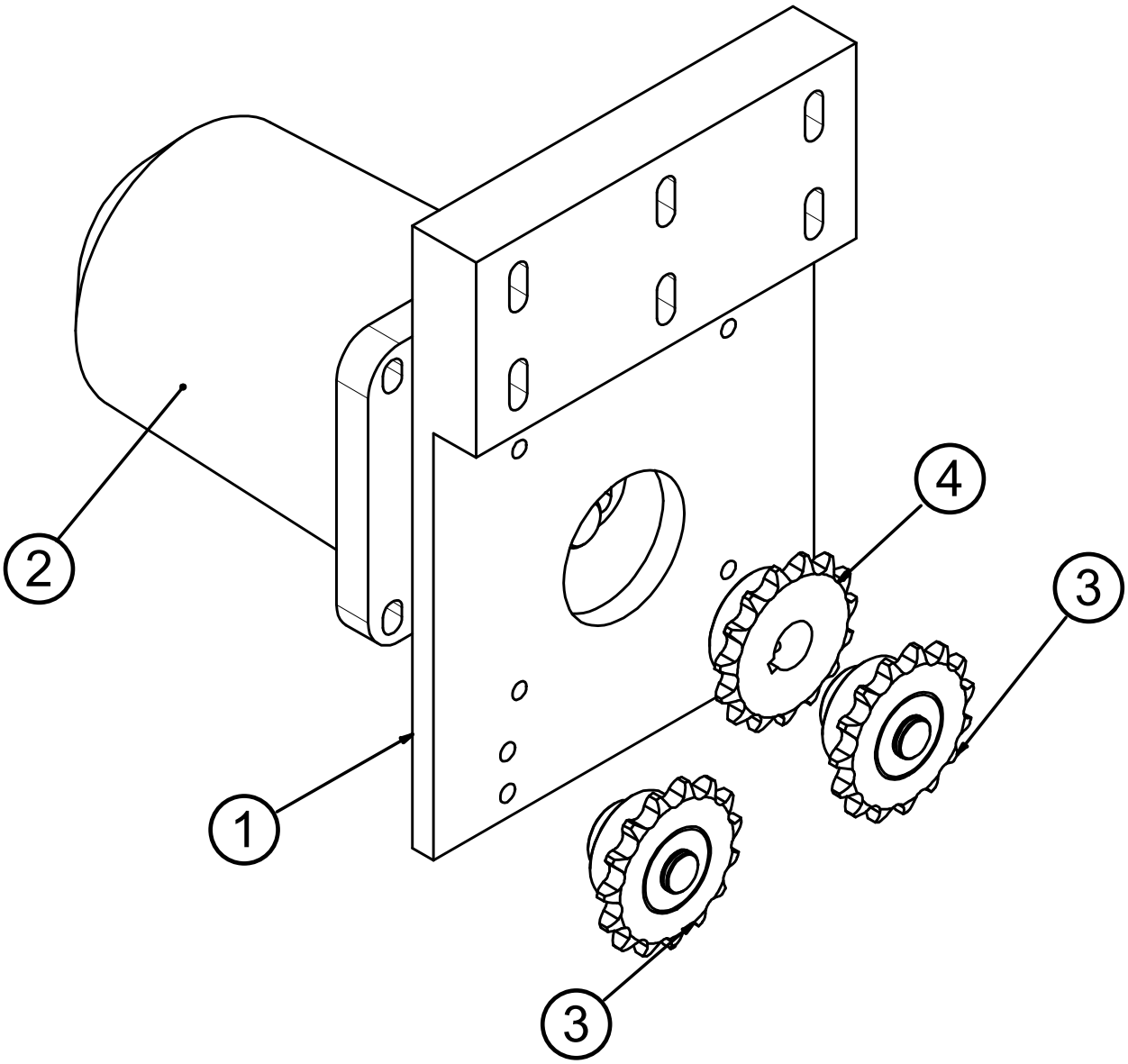
SUBV0006 Chain Tensioner Assembly

Parts List – FM350-05-0018 | Tension in the Lift

Item	Part Number	Description	Reference	Quantity
1	VS180006	Shaft, Tensioner	FM360-05-55	1
2	VS180360	Bracket, Tensioner	FM360-05-56	1
3	VS180007	Sprocket, Tensioner (15Z)	FM360-05-54	2
3	VS180030	Bearing	6002Z	1

SUBV0007 Lift Motor Assembly

Exploded View – FM350-05-00019 | 350 Lift Motor



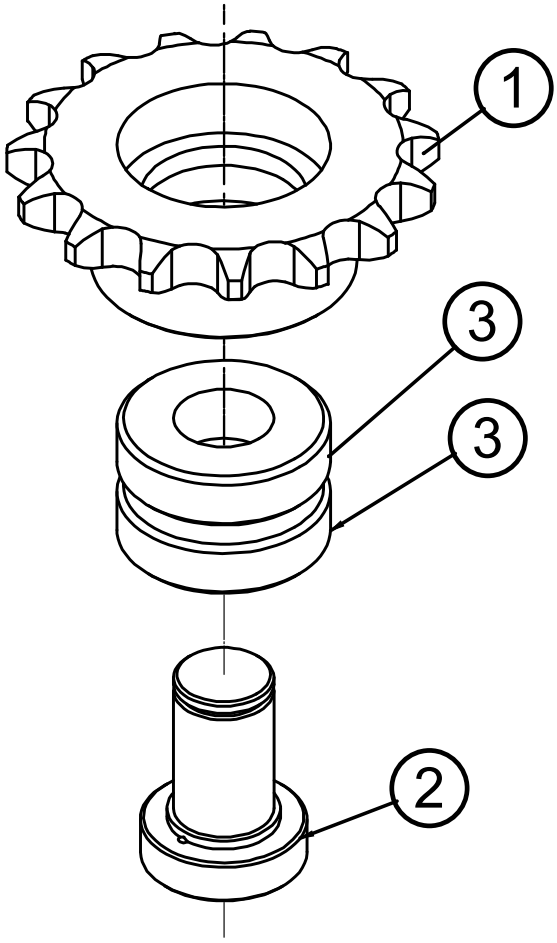
SUBV0007 Lift Motor Assembly

Parts List – FM350—05-00019 | 350 Lift Motor

Item	Part Number	Description	Reference	Quantity
1	VS180361	Lift Motor Mount	FM350-05-20	1
2	VS180258	Lift Motor	B350B007	1
3	SUBV0048	Tensioner Sprocket, Lift Motor	FM350-05-00020	2
4	VS180259	Drive Sprocket, Lift (15Z)	FM360-05-58	1

SUBV0048 Tension Sprocket, Lift Motor

Exploded View – FM350-05-00020 | 350 Tension Sprocket



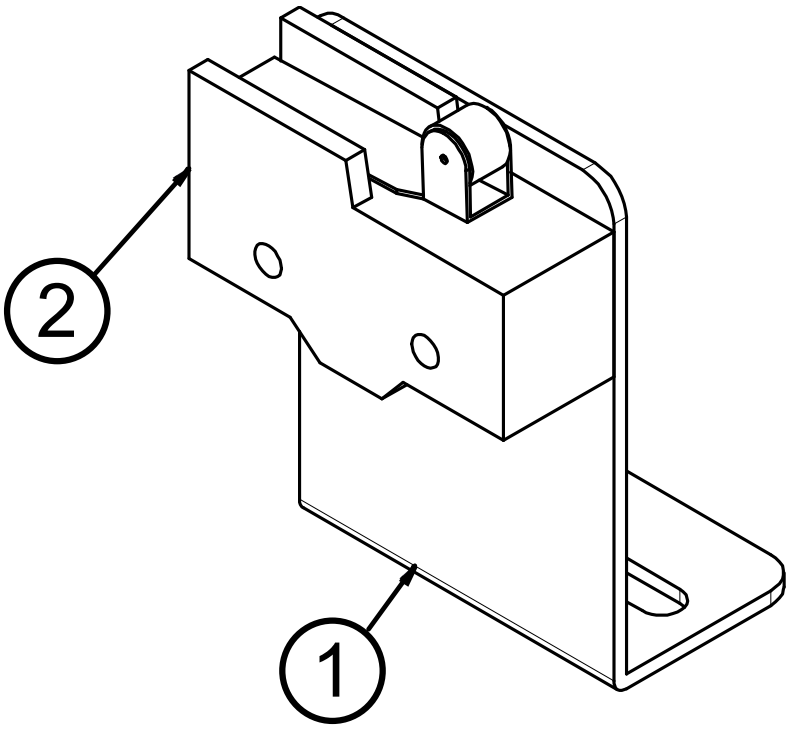
SUBV0048 Tension Sprocket, Lift Motor

Parts List – FM350-00-00020 | 350 Tension Sprocket

Item	Part Number	Description	Reference	Quantity
1	VS180007	Sprocket, Tensioner (15Z)	FM360-05-54	1
2	VS180006	Shaft, Tensioner	FM360-05-55	1
3	VS180030	Bearing	6002Z	2

SUBV0008 Lift Limit Switch Assembly

Assembled View – FM350-05-00021 | 350 Tool Holder Lifting Limit



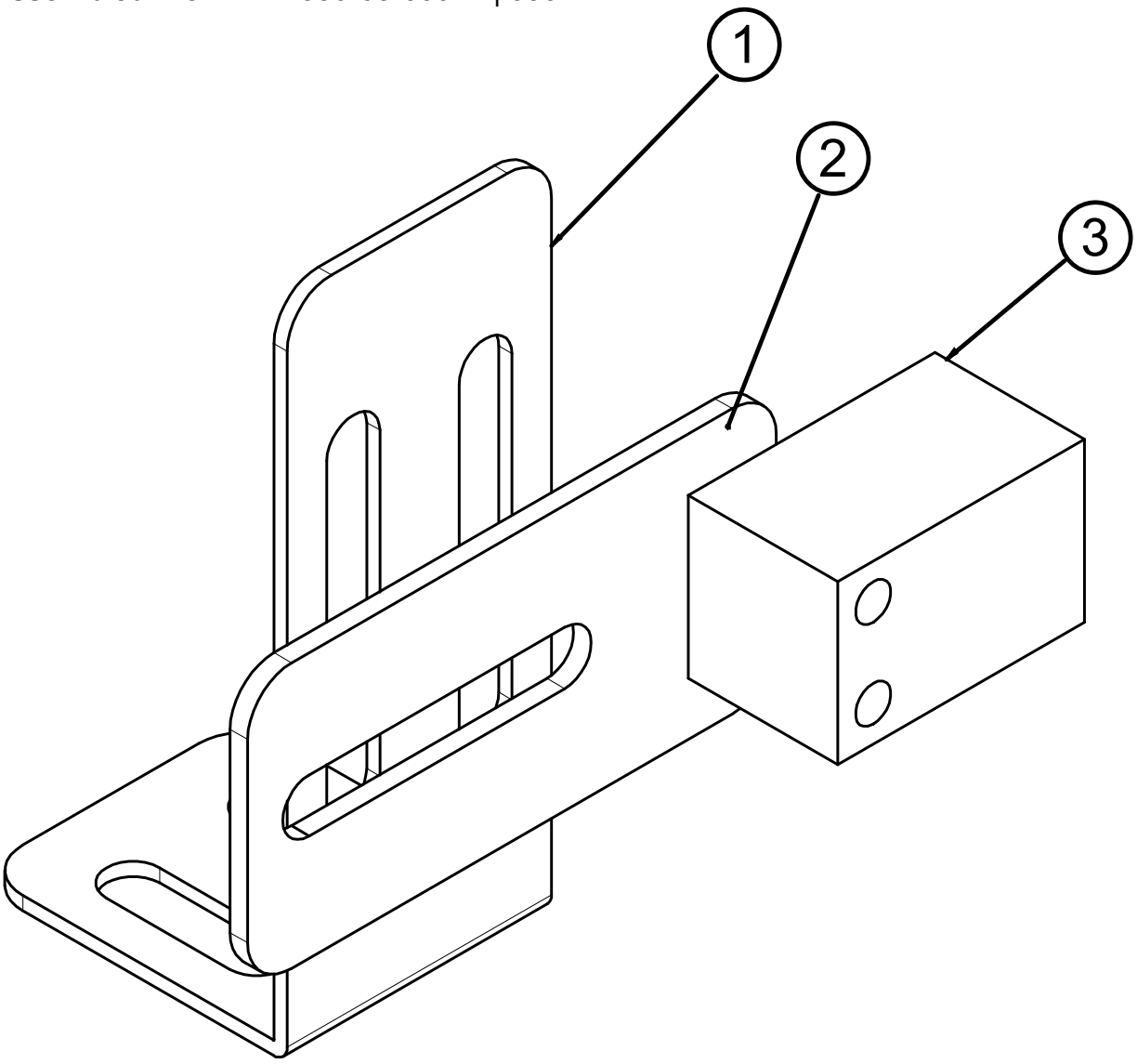
SUBV0008 Lift Limit Switch Assembly

Parts List – FM350-05-00021 | 350 Tool Holder Lifting Limit

Item	Part Number	Description	Reference	Quantity
1	VS180260	LIMIT BRACKET, SEAL HEAD IV	FM360-05-69	1
2	VS180024	MICROSWITCH	B250B044	1

SUBV0009 Tool Holder Limit Switch Assembly

Assembled View – FM350-05-00022 | 350 Tool Holder Limit



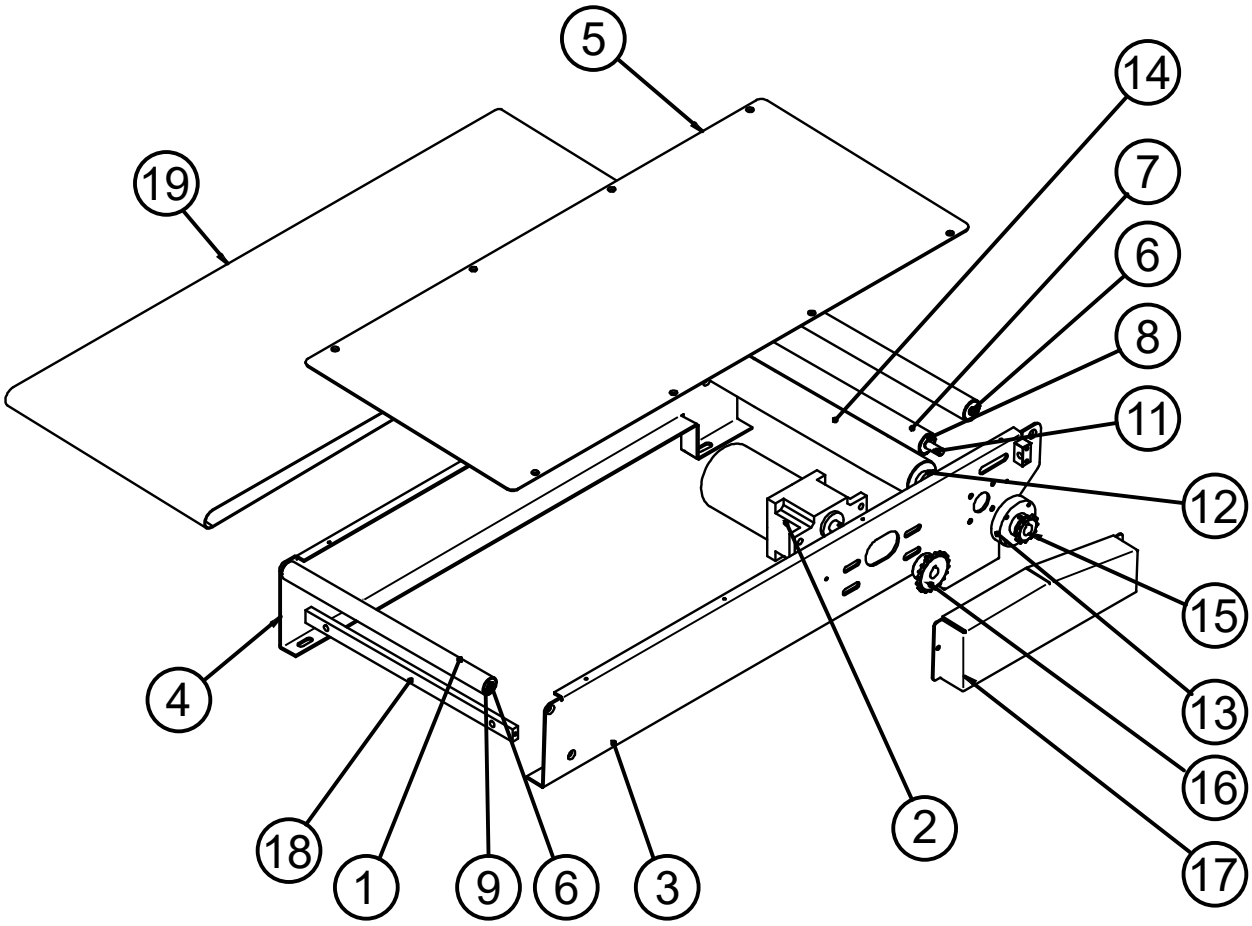
SUBV0009 Tool Holder Limit Switch Assembly

Parts List – FM350-05-022 | Tool Holder Limit

Item	Part Number	Description	Reference	Quantity
1	VS180261	Seal Head Limit Bracket One	FM360-05-66	1
2	VS180262	Seal Head Limit Bracket Two	FM360-05-67	1
3	VS180026	Induction Switch	B250B015	1

SUBV0016 Infeed Conveyor

Exploded View – FM350-06-00 | 350 After Conveying Components



SUBV0016 Infeed Conveyor

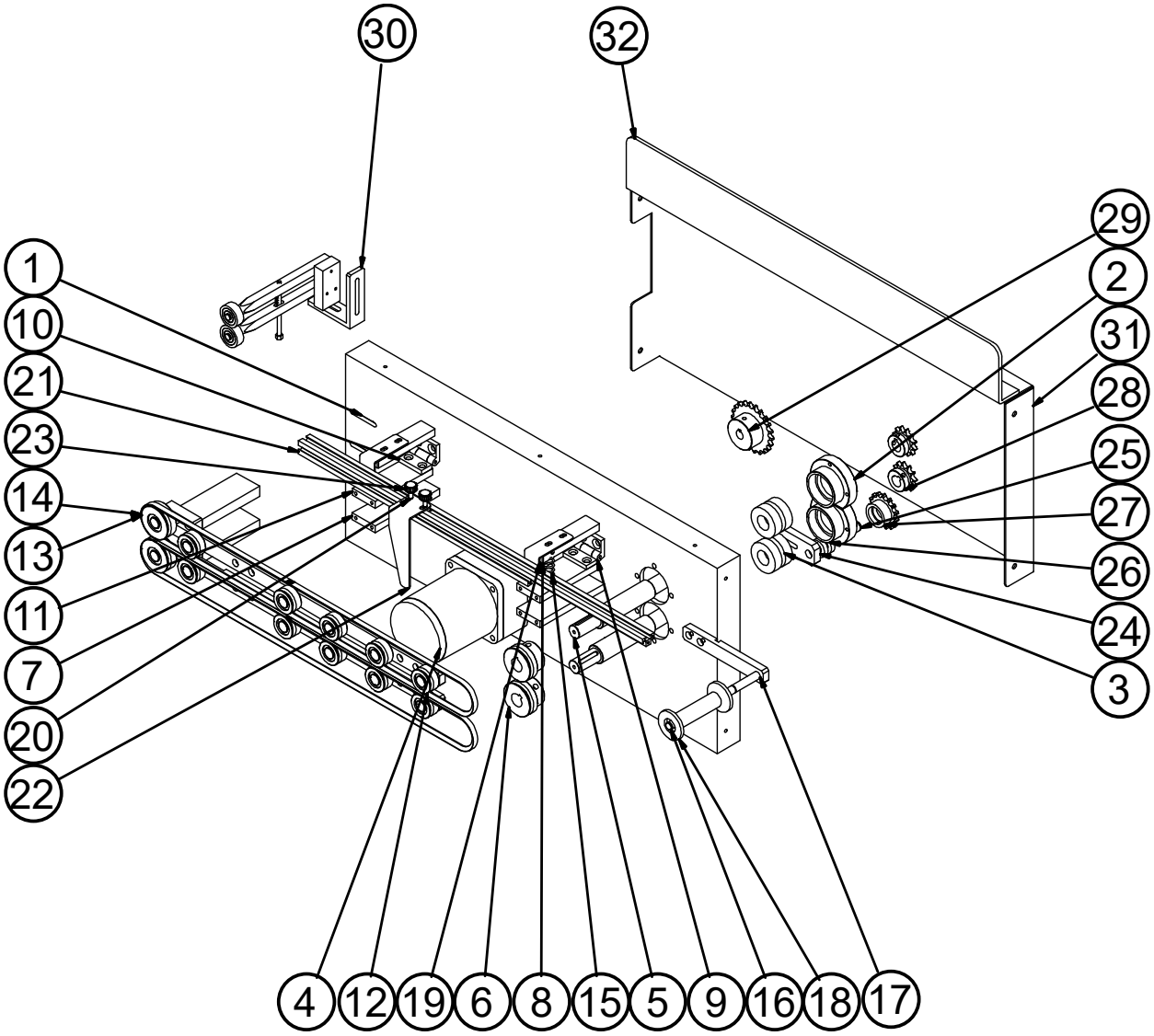
Parts List – FM350-06-00 | After Conveying Components

Item	Part Number	Description	Reference	Quantity
1	VS180014	Front End Roller	FM350-12-12	1
2	VS180022	Transfer Motor	B350B006	1
3	VS180263	Front End Conveyor Plate	FM350-06-01	1
4	VS180264	Rear End Conveyor Plate	FM350-06-02	1
5	VS180265	Belt Plate	FM350-06-03	1
6	VS180018	Tension Shaft	FM350-12-05	2
7	VS180017	Tension Roller	FM350-12-06	2
8	VS180031	Bearing	6000ze	4
9	VS180096	Bearing - 6900z 10x22x6	6900z	2
10	VS180039	Tension Block	2005-12-20	2

Item	Part Number	Description	Reference	Quantity
11	VS180011	Tension Shaft	FM350-12-19	1
12	VS180028	Bearing	61904Z	2
13	VS180038	Housing	2005-12-15	2
14	VS180012	Active Roller	FM350-12-14	1
15	VS180040	Sprocket	2005-12-21	1
16	VS180015	Sprocket	FM350-12-09	1
17	VS180041	Chain Cover	2005-12-23	1
18	VS180016	Reinforcing Rod	FM350-12-08	1
19	VS180266	Belt, Take Away Conveyor	FM350-06-04	1

SUBV0010 Pull Film Assembly

Exploded View – FM350-07-00 | 350 Pull Film Assembly



SUBV0010 Pull Film Assembly

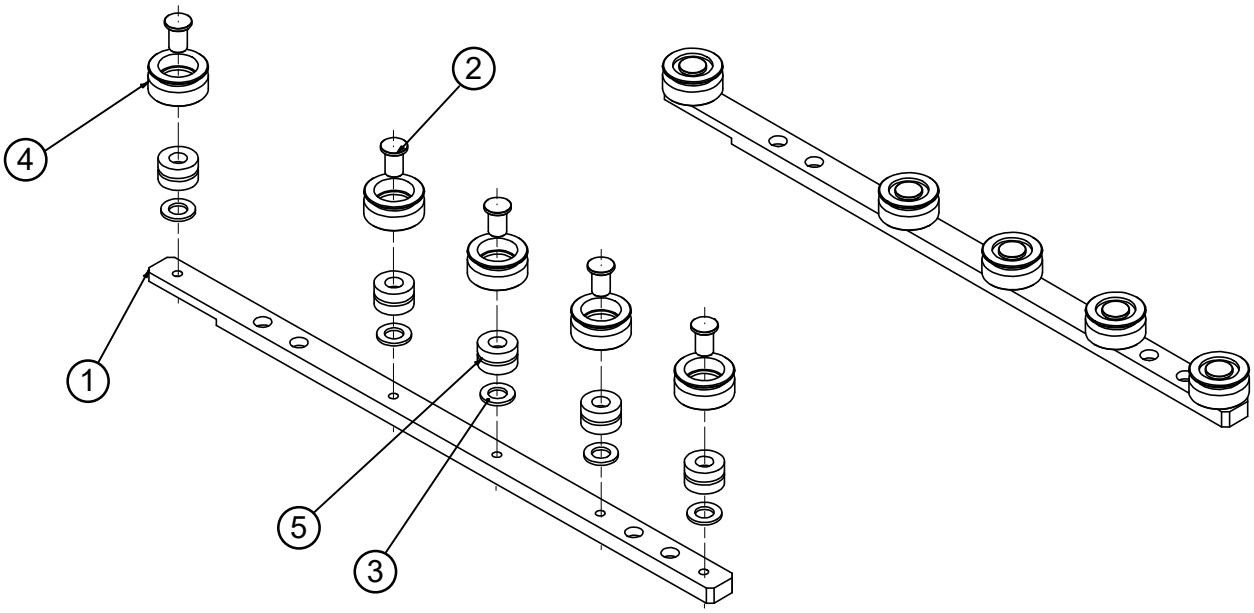
Parts List – FM350-07-00 | 350 Pull Film Assembly

Item	Part Number	Description	Reference	Quantity
1	VS180267	Scrap Film Frame	FM360-07-01	1
2	VS180268	Bearing Housing, Film Chain	2005-07-02	2
3	VS180029	Bearing	6004-2Z	4
4	VS180269	Motor, Scrap Belt	B350B005	1
5	VS180270	Scrap Belt Drive Shaft	FM360-07-02	2
6	VS180271	Drive Pulley, Scrap Belt	2005-07-05	2

Item	Part Number	Description	Reference	Quantity
7	VS180272	Lower Mount, Scrap Belt Assembly	FM360-07-03	2
8	VS180273	Film Separation Rod Fixed Mount	FM360-07-04	2
9	VS180027	Hinge	B205002201	2
10				
11	VS180274	Upper Mount, Scrap Belt Assembly	FM360-07-05	2
12	SUBV0035	Scrap Belt Idler Assembly	FM350-07-0001	2
13	SUBV0036	Scrap Belt Idler Pulley	FM350-07-0002	2
14	VS180275	Scrap Belt	FM360-07-09	2
15	VS180276	Coil Spring, 2mm Wire X 17mm O.D. X 48mm L	FM360-07-10	2
16	VS180278	Shaft, Scrap Take-Away	FM360-07-12	1
17	VS180279	Mount Block	FM360-07-11	1
18	VS180019	Scrap Film Roller	FM350-08-15	1
19	VS180280	Film Separation Mount Bracket	FM350-07-14	2
20	VS180281	T-Nut, Film Separation	2005-07-26	3
21	VS180282	80/20 Rail, Film Separation	FM360-07-13	1
22	VS180283	Film Separating Plate	FM350-07-15	1
23	VS180284	Hand Knob, Film Separation Plate M5x10	M5X10	2
24	VS180285	Mount, Tensioner Sprocket	FM360-07-16	1
25	VS180286	Shaft, Tensioner Sprocket	FM360-07-17	1
26	VS180287	Bearing 6901z(12x24x6)	6901z	2
27	VS180287	Tensioner Sprocket, Scrap Drive	FM360-07-18	1
28	VS180288	Driven Sprocket, Scrap Belt	FM360-07-19	2
29	VS180289	Drive Sprocket, Scrap Belt	FM360-07-20	1
30	SUBV0037	Pinch Roller Assembly	FM350-07-0003	1
31	VS180290	Cover, Scrap Drive	FM360-07-23	1
32	VS180291	Shield, Scrap Belt	FM360-07-24	1

SUBV0035 Scrap Belt Idler Assembly

Exploded and Assembled Views – FM350-07-0001 | 350 Pull Film Guide Rod



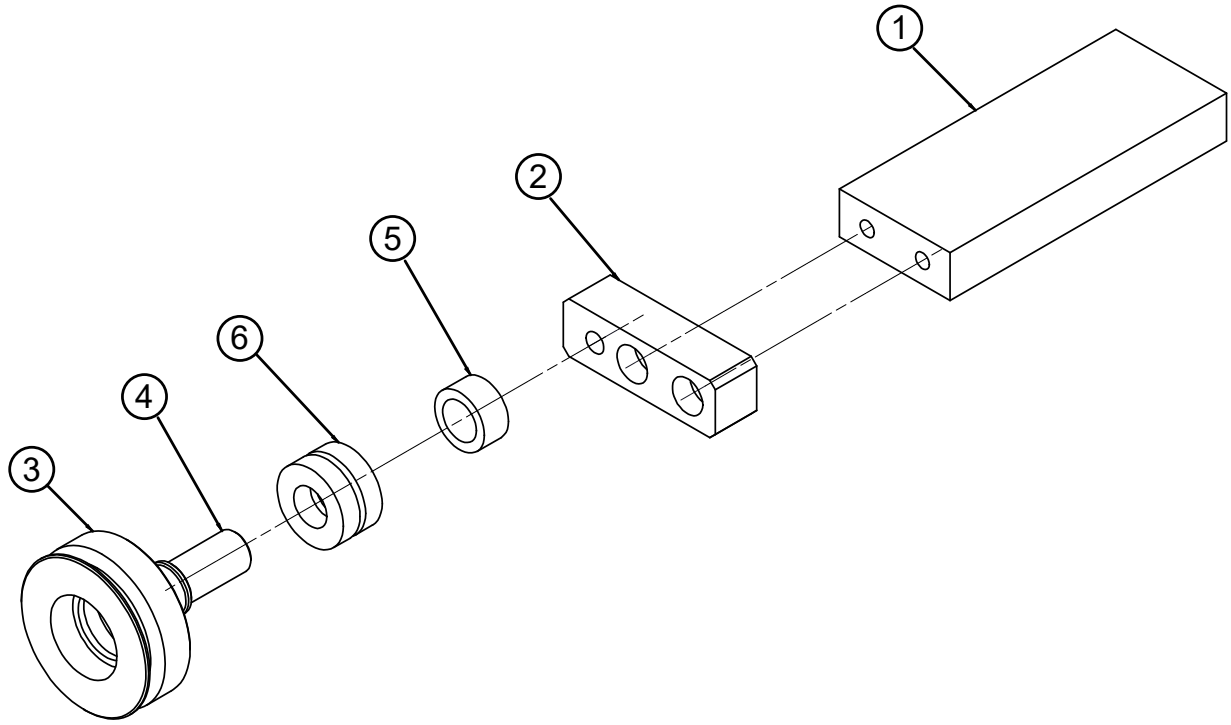
SUBV0035 Scrap Belt Idler Assembly

Parts List – FM350-07-0001 | 350 Pull Film Guide Rod

Item	Part Number	Description	Reference	Quantity
1	VS180292	Scrap Belt Idler Rail	FM360-07-06	1
2	VS180293	Shaft, Scrap Pulley Idler	2005-07-20	5
3	VS180294	Spacer, Scrap Idler	2005-07-21	5
4	VS180295	Idler Pulley, Scrap Belt	2005-07-19	5
5	VS180096	Bearing - 6900z 10x22x6	6900z	10

SUBV0036 Scrap Belt Idler Pulley Assembly

Exploded View – FM350-07-0002 | 350 Pull Film Guide Rod Wheel



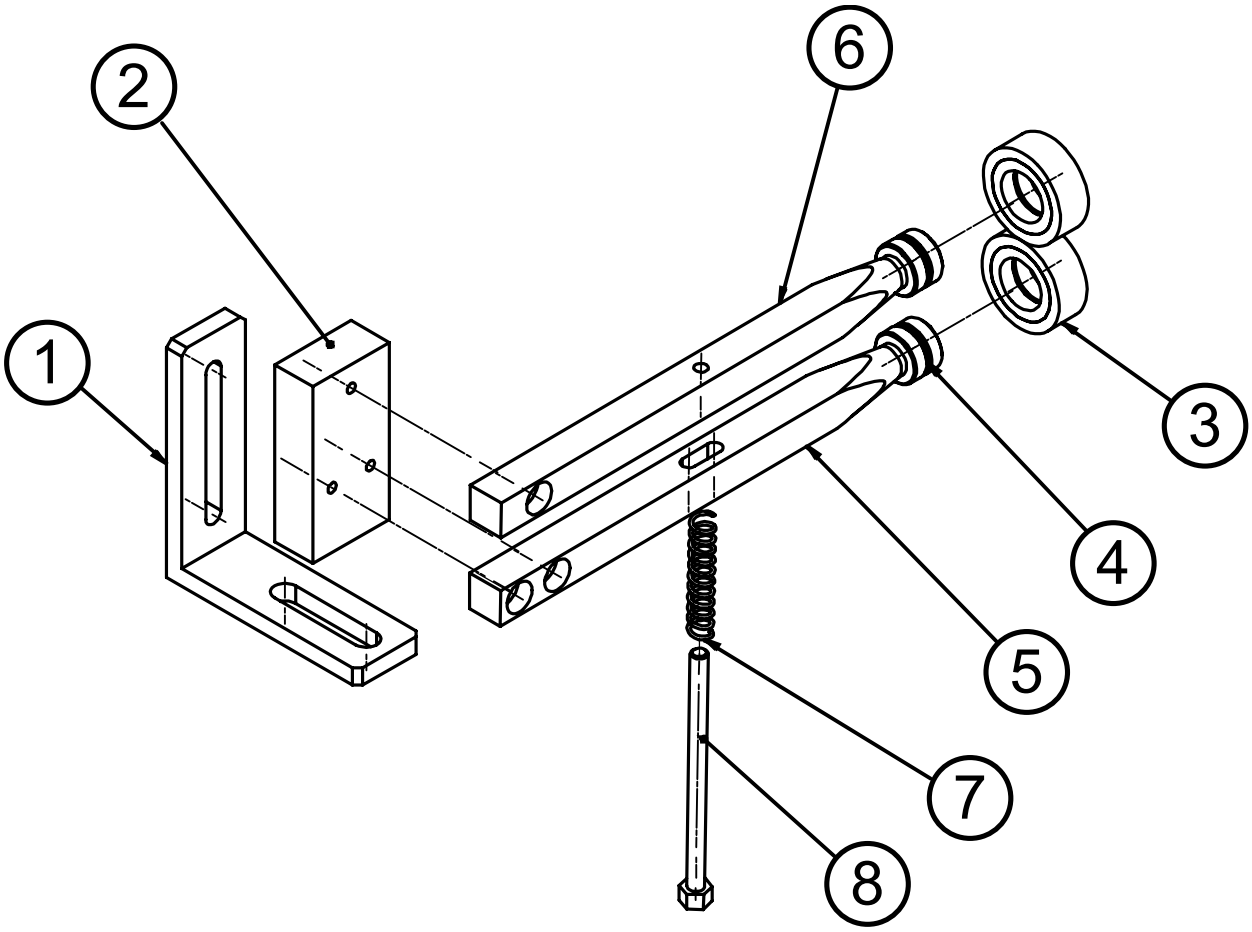
SUBV0036 Scrap Belt Idler Pulley Assembly

Parts List – FM350-07-0002 | 350 Pull Film Guide Rod Wheel

Item	Part Number	Description	Reference	Quantity
1	VS180296	Guide Wheel Mount Spacer	FM360-07-07	1
2	VS180297	Guide Wheel Mount Block	FM360-07-08	1
3	VS180298	Scrap Belt Guide Pulley	2005-07-15	1
4	VS180299	Shaft, Guide Pulley	2005-07-16	1
5	VS180335	Spacer, Guide Pulley	2005-07-17	1
6	4500174	Bearing 6901z (12x24x6)	6901z	2

SUBV0037 Pinch Roller Assembly

Exploded View – FM350-07-0003 | 350 Clamping Film Wheel



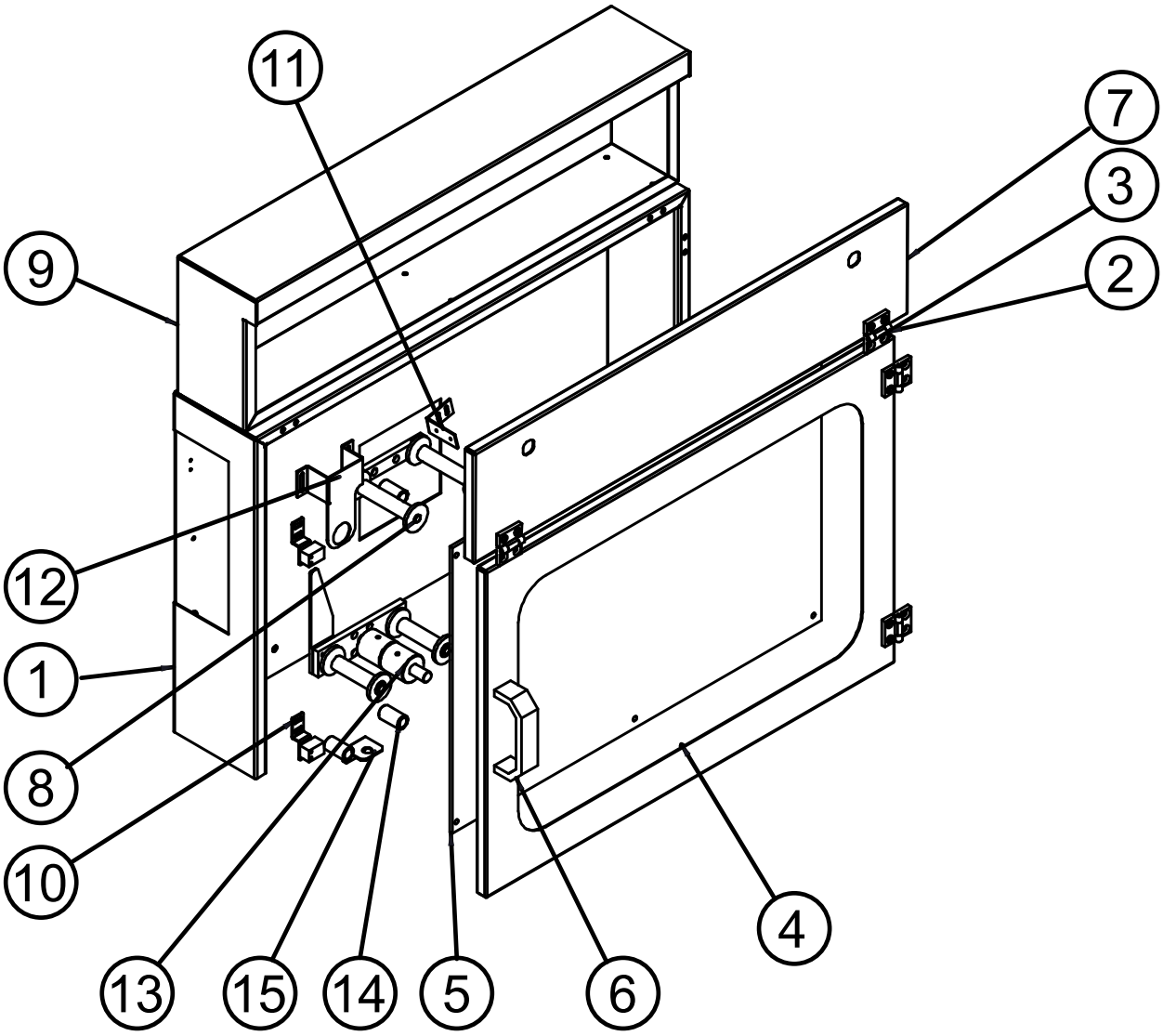
SUBV0037 Pinch Roller Assembly

Parts List – FM350-07-003 | 350 Clamping Fim Wheel

Item	Part Number	Description	Reference	Quantity
1	VS180336	Mount Bracket, Pinch Roller	2005-07-29	1
2	VS180337	Mount Block, Pinch Roller	2005-07-30	1
3	VS180338	Pinch Roller	2005-07-33	2
4	4500169	Bearing (688-ZZ 8X16X5)	688-ZZ	4
5	VS180339	Lower Rod, Pinch Roller	FM360-07-21	1
6	VS180340	Upper Rod, Pinch Roller	FM360-07-22	1
7	VS180341	Coil Spring, 1mm X 5.5mm O.D. X 40mm	2005-07-33-1	1
8	VS180342	Screw M5x80	2005-07-33-2	1

SUBV0011 Scrap Wind Up Assembly

Exploded View – FM350-08-00 | 350 Receiving Assembly



SUBV0011 Scrap Wind Up Assembly

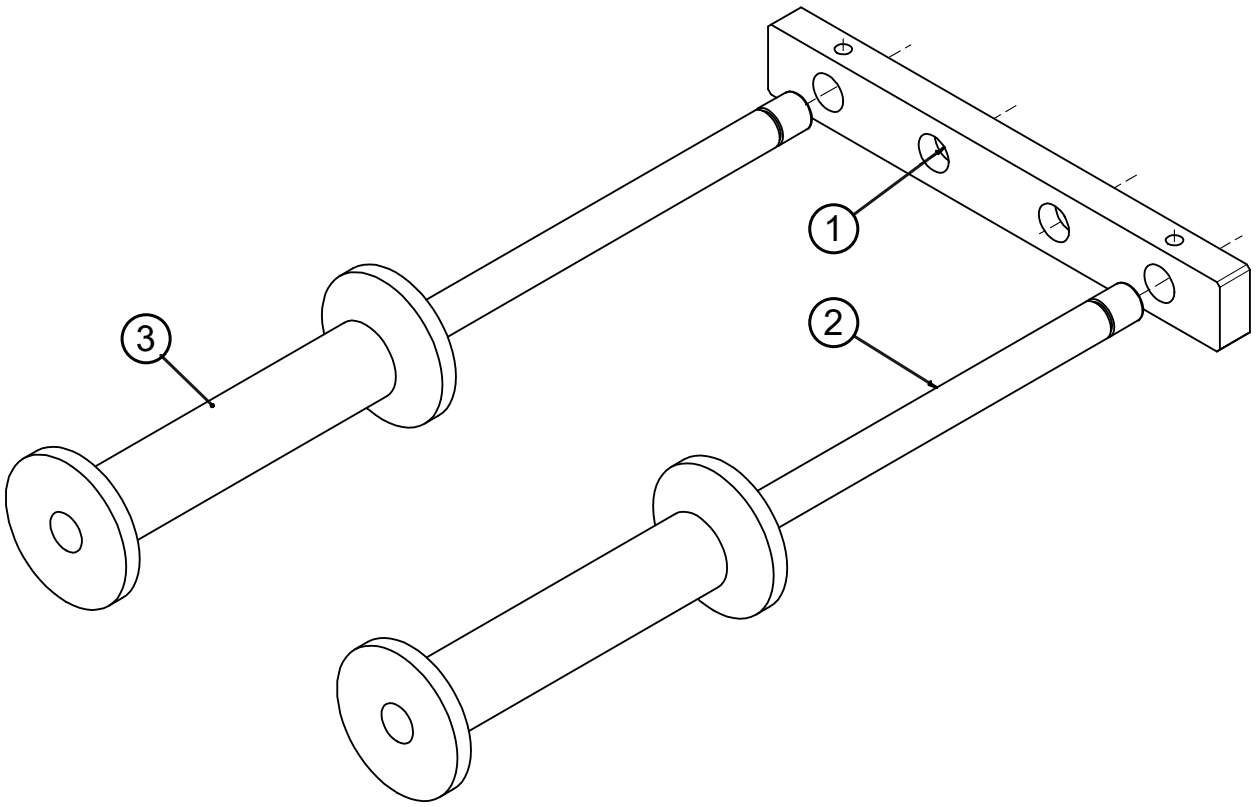
Parts List – FM350-08-00 | 350 Receiving Assembly

Item	Part Number	Description	Reference	Quantity
1	VS180238	Scrap Bin	FM350-08-01	1
2	VS180027	Hinge	B205002201	4
3	VS180239			
4	VS180240	Scrap Bin Door	FM350-08-02	1
5	VS180020	Window, Scrap Bin Door	FM350-08-03	1
6	VS180241	Handle	B5010009	1

Item	Part Number	Description	Reference	Quantity
7	SUBV0038	Support, Scrap Door	FM360-08-05	1
8	VS180242	Receiving Bracket	FM350-08-0001	1
9	VS180025	Support Shield	FM350-08-04	1
10	VS180243	Proximity Switch	B250B024	1
11	VS180244	Induction Cover	FM360-08-25	2
12	SUBV0039	Induction Sensor Mount, Large Hole	FM350-08-07	1
13	VS180245	Weight	FM350-08-0003	1
14	VS180246	Block	FM350-08-12	3
15	VS180238	Induction Sensor Mount	FM350-08-13	1

SUBV0038 Receiving Bracket Assembly

Partially-Assembled View – FM350-08-0001 | 350 Receiving Bracket



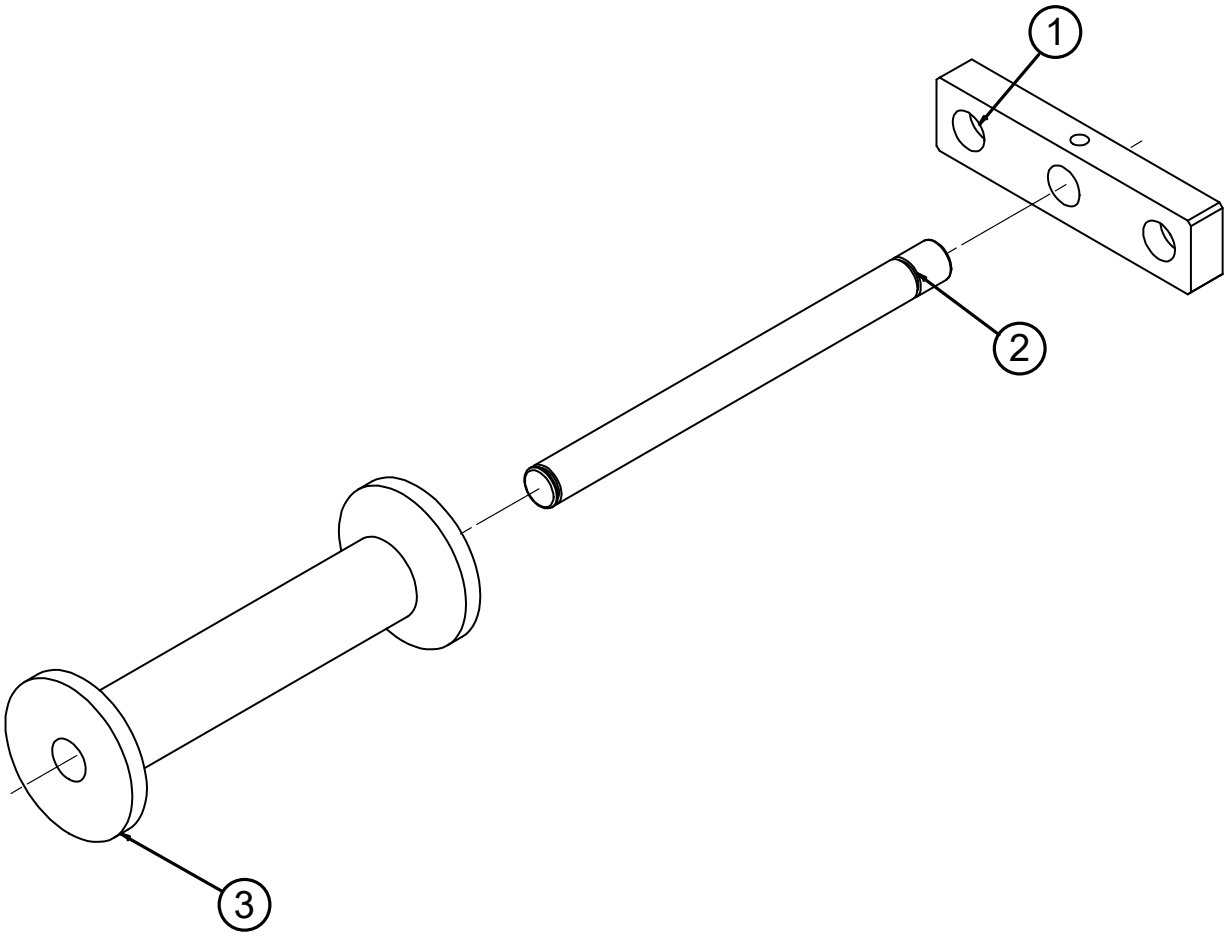
SUBV0038 Receiving Bracket Assembly

Parts List – FM350-08-0001 | Receiving Bracket

Item	Part Number	Description	Reference	Quantity
1	VS180351	Scrap Support Two	FM360-08-10	1
2	VS180005	Material Transfer Shaft 2	FM360-08-09	2
3	VS180042	Pull Film Roller	2005-07-11	2

SUBV0013 Scrap Wind Bracket 2 Assembly

Exploded View – FM350-08-0002 | 350 Receiving Bracket 2



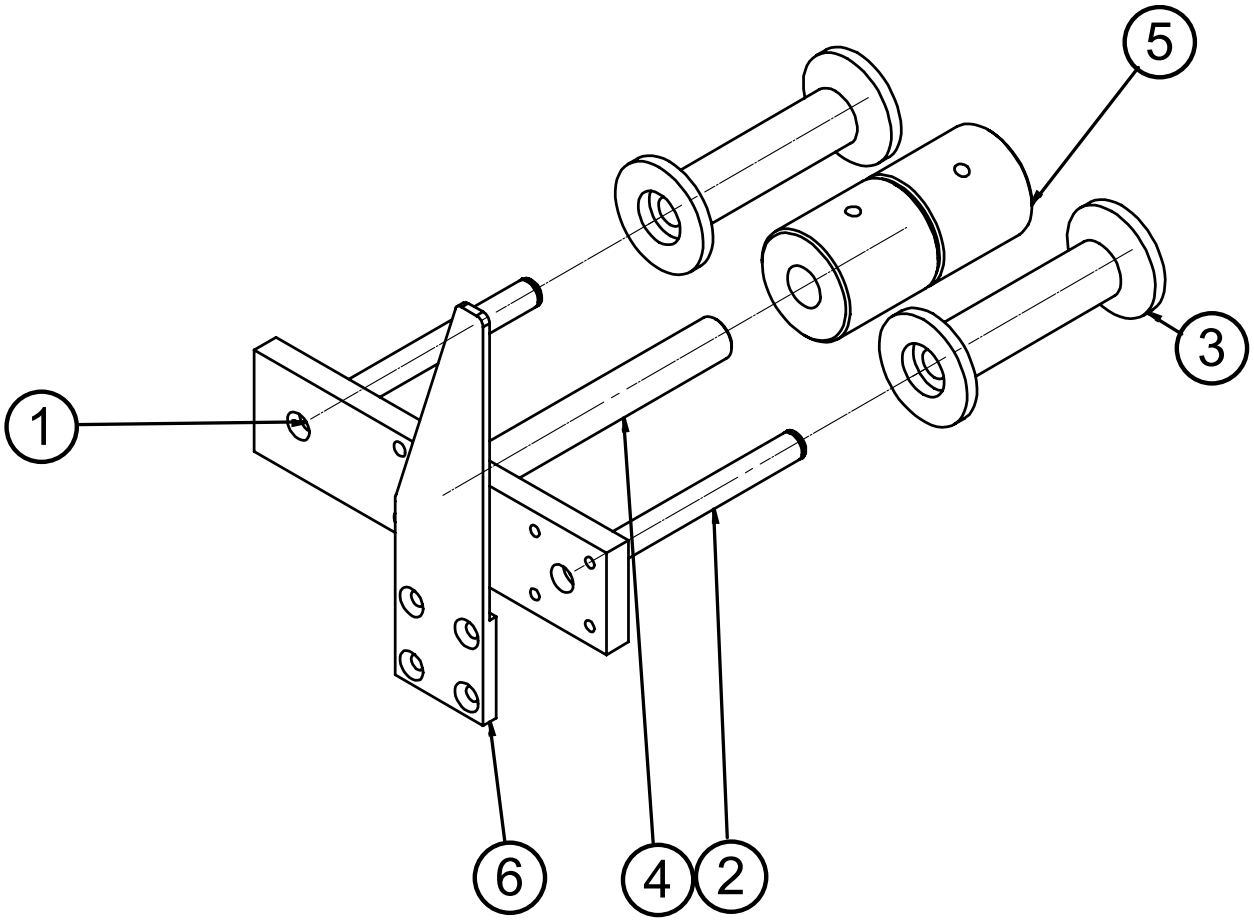
SUBV0013 Scrap Wind Bracket 2 Assembly

Parts List – FM350-08-0002 | Receiving Bracket 2

Item	Part Number	Description	Reference	Quantity
1	VS180248	Scrap Support One	FM360-08-08	1
2	VS180005	Material Transfer Shaft 2	FM360-08-09	1
3	VS180042	Pull Film Roller	2005-07-11	3

SUBV0039 Weight Assembly

Exploded View – FM350-08-0003 | 350 Weight



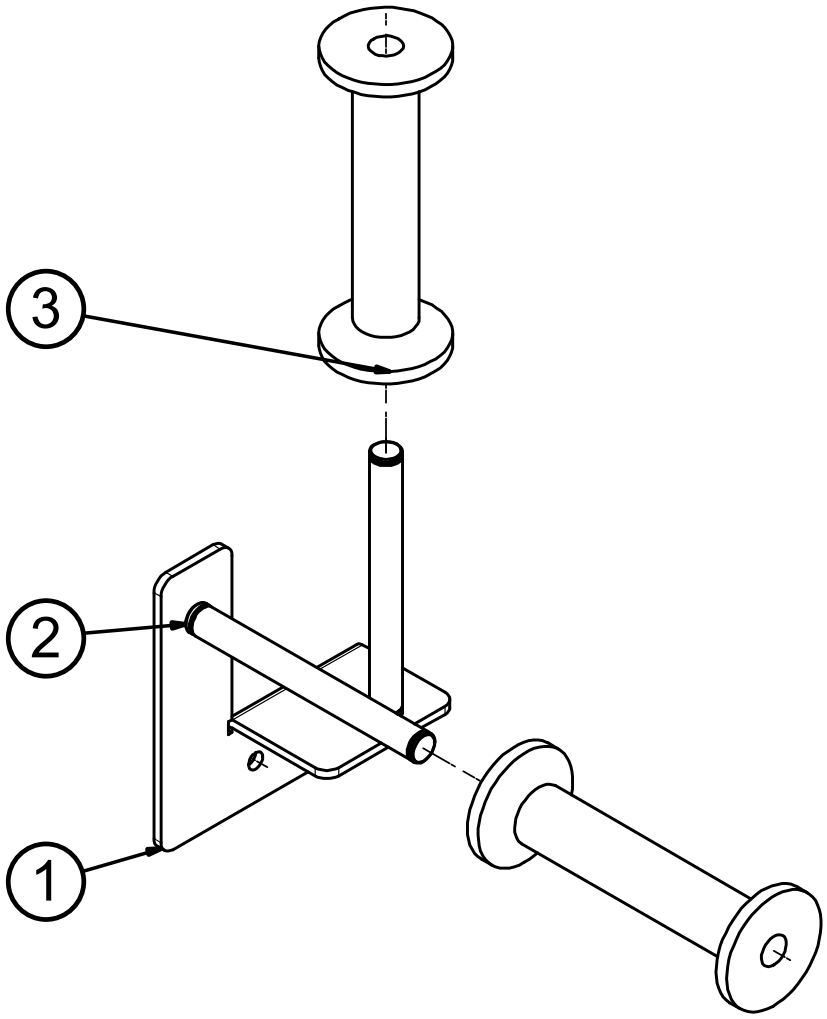
SUBV0039 Weight Assembly

Parts List – FM350-08-0003 | 350 Weight

Item	Part Number	Description	Reference	Quantity
1	VS180353	Reset Support Plate	FM350-08-08	1
2	VS180354	Material Transfer Shaft One	FM350-08-16	2
3	VS180019	Pull Film Roller	FM350-08-15	2
4	VS180306	Reset Support Shaft	FM350-08-09	1
5	VS180307	Reset	FM350-08-10	2
6	VS180308	Induction Plate	FM350-08-11	1

SUBV0014 Scrap Turn Bracket Assembly

Exploded View – FM350-08-0004 | 350 Receiving Bracket 1



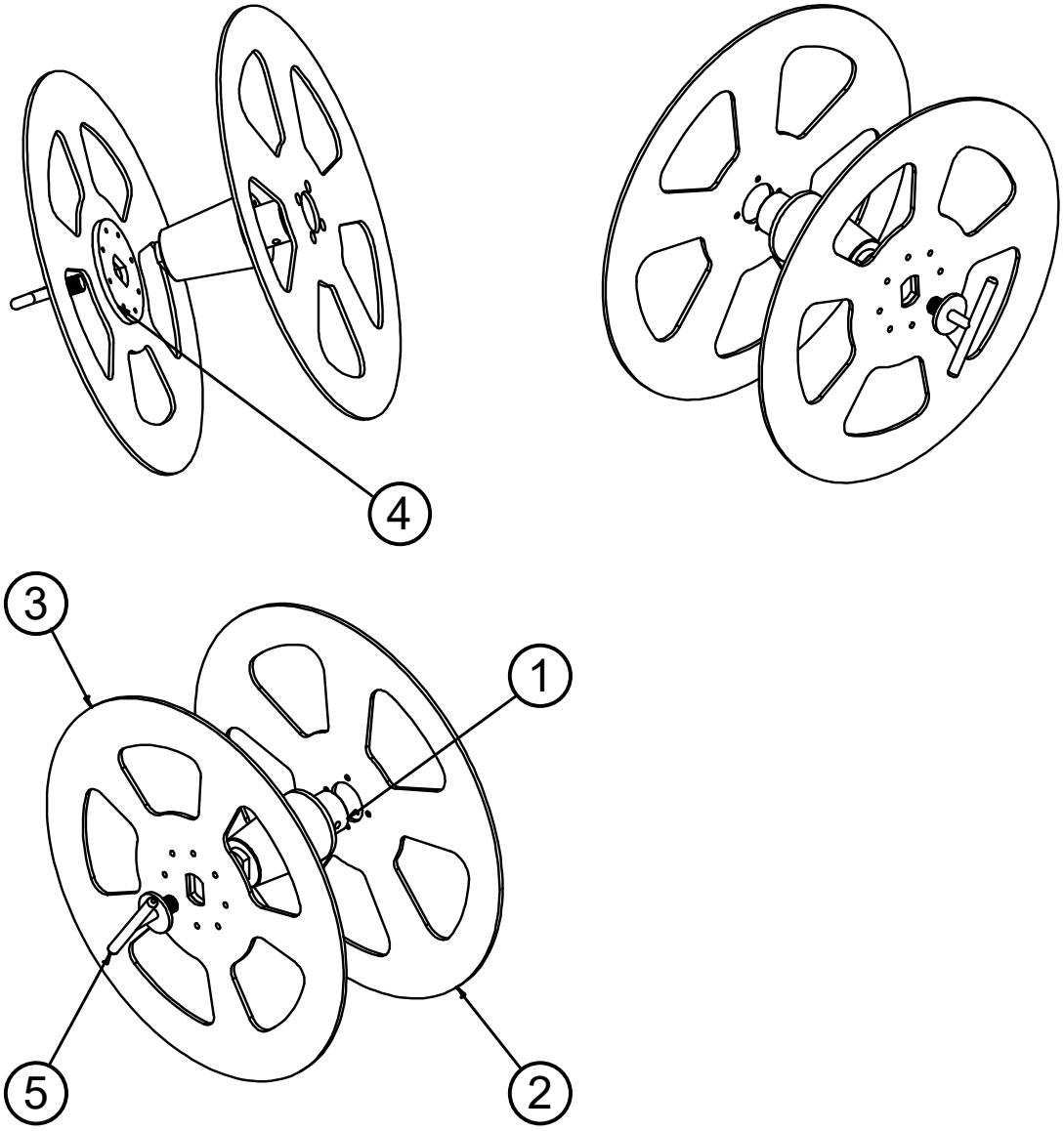
SUBV0014 Scrap Turn Bracket Assembly

Parts List – FM350-08-0004 | 350 Receiving Bracket 1

Item	Part Number	Description	Reference	Quantity
1	VS180353	Scrap Turn Bracket	FM360-08-06	1
2	VS180354	Shaft, Scrap Turn	FM360-08-07	2
3	VS180019	Pull Film Roller	2005-07-11	2

SUBV0012 Scrap Wind Disk Assembly

Multiple Views – FM350-08-0005 | 350 Disc



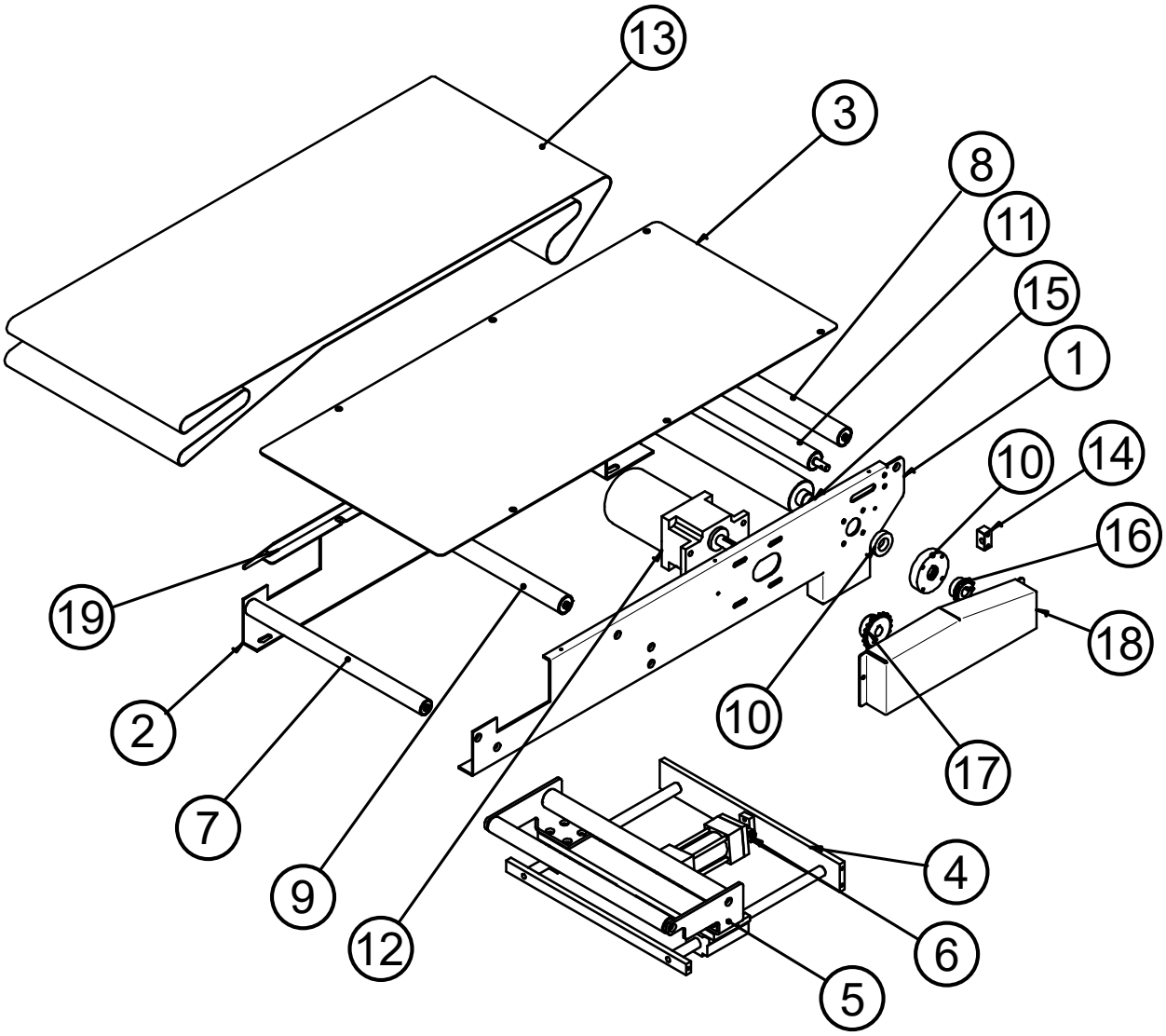
SUBV0012 Scrap Wind Disk Assembly

Parts List – FM350-08-0005 | 350 Disc

Item	Part Number	Description	Reference	Quantity
1	VS180311	Disc Mount Block	FM350-08-05	1
2	VS180312	Disc	FM360-08-21	1
3	VS180313	Front Disc	2005-08-08	1
4	VS180314	Front Disc Mount	2005-08-09	1
5	VS180315	Disc Handle	2005-08-21	1

SUBV0015 Exit Conveyor Assembly

Partially-Assembled View – FM350-12-00 | 350 After Conveying Components



SUBV0015 Exit Conveyor Assembly

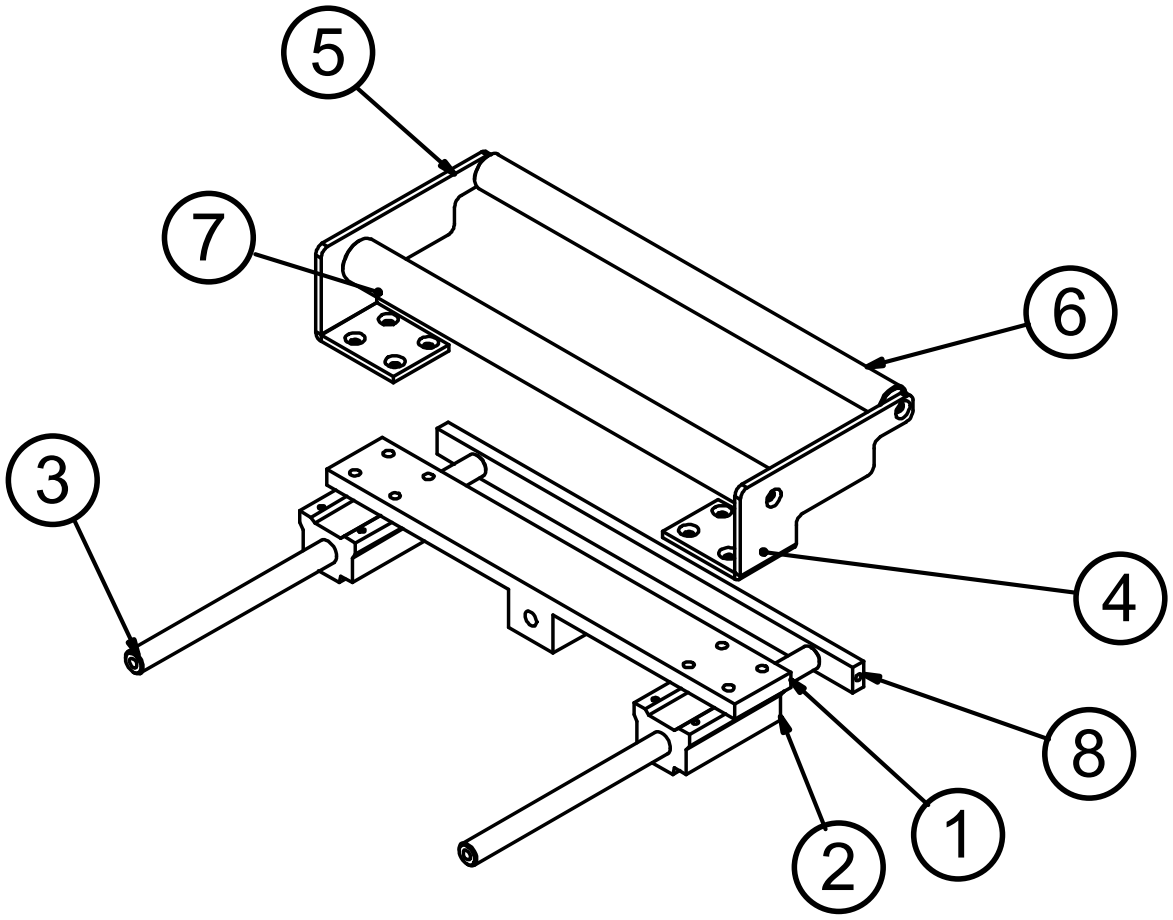
Parts List – FM350-12-00 | 350 After Conveying Components

Item	Part Number	Description	Reference	Quantity
1	VS180316	Front End Conveyor Plate	FM350-12-01	1
2	VS180317	Rear End Conveyor Plate	FM350-12-02	1
3	VS180318	Belt Plate, Take Away Conveyor	FM350-12-03	1
4	VS180319	Cylinder Block	FM350-12-04	1
5	SUBV0040	Cylinder Block	FM350-12-0001	1
6	VS180320	Seal The Cylinder	B350B01001	1

Item	Part Number	Description	Reference	Quantity
7	SUBV0044	Front End Roller	FM350-12-0005	1
8	SUBV0045	Tension Shaft	FM350-12-0006	1
9	SUBV0046	Tension Shaft	FM350-12-0007	1
10	SUBV0043	Bearing Housing	FM350-12-0004	2
11	SUBV0047	Tension Shaft	FM350-12-0008	1
12	VS180022	Transfer Motor	B350B006	1
13	VS180321	Belt, Take Away Conveyor	FM350-12-10	1
14	VS180039	Tension Block	2005-12-20	2
15	VS180012	Active Roller	FM350-12-14	1
16	VS180040	Sprocket	2005-12-21	1
17	VS180015	Sprocket	FM350-12-09	1
18	VS180041	Chain Cover	2005-12-23	1
19	VS180322	Shields	FM350-12-20	1

SUBV0040 VSA1825-TKV1 Cylinder Block Assembly

Partially-Assembled View – FM350-12-0001 | 350 Cylinder Block



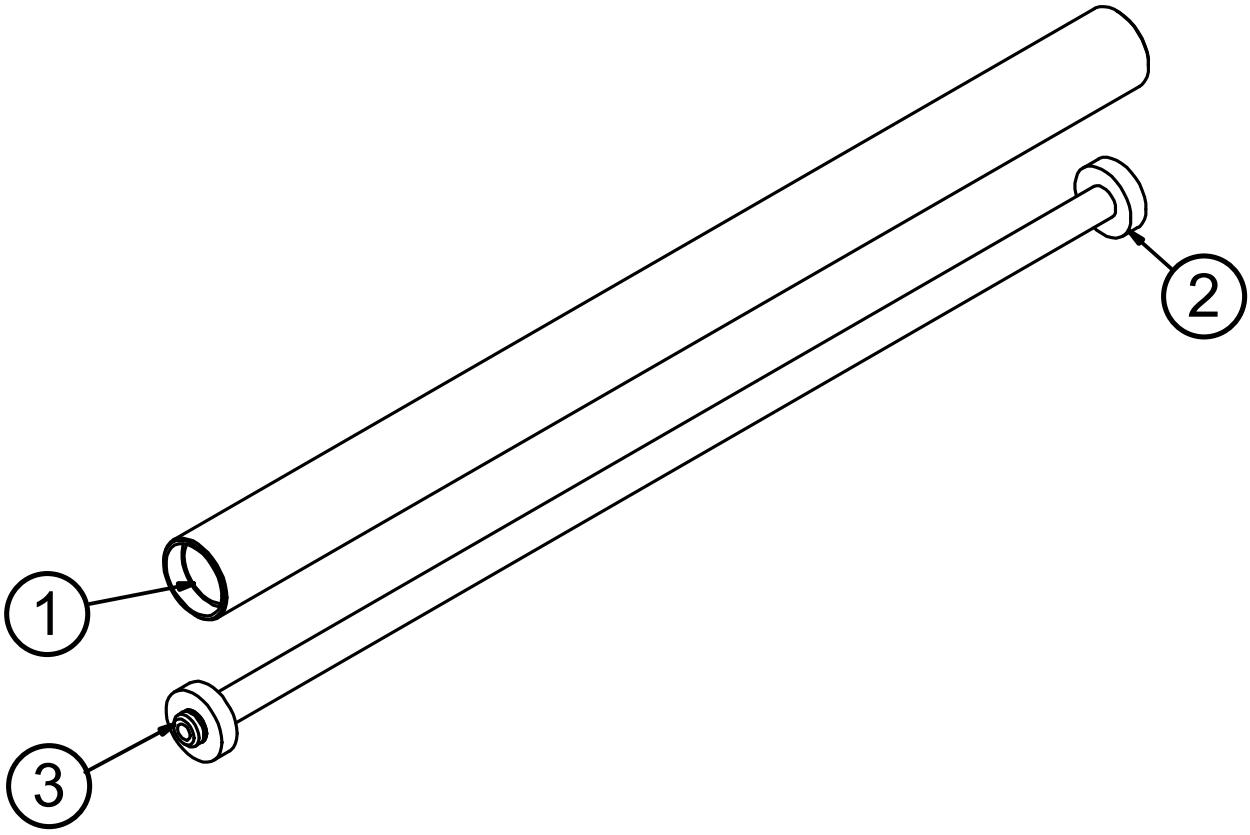
SUBV0040 Cylinder Block Assembly

Parts List – FM350-12-0001 | 350 Cylinder Block

Item	Part Number	Description	Reference	Quantity
1	VS180323	Pedestal Flat Block with Mounting Holes	FM350-12-07	1
2	VS180324	Linear Bearing	SCS16LUU	2
3	VS180325	Supporting Shaft	2005-12-08	2
4	VS180326	Cylinder Block Left Bracket	2005-12-11	1
5	VS180327	Cylinder Block Right Bracket	2005-12-10	1
6	SUBV0041	End Roller Assembly	FM350-12-0002	1
7	SUBV0042	Tension Shaft Assembly	FM350-12-0003	1
8	VS180016	Reinforcing Rod	FM350-12-08	1

SUBV0041 Front End Roller Assembly

Partially-Assembled View – FM350-12-0002 | 350 Front End Roller



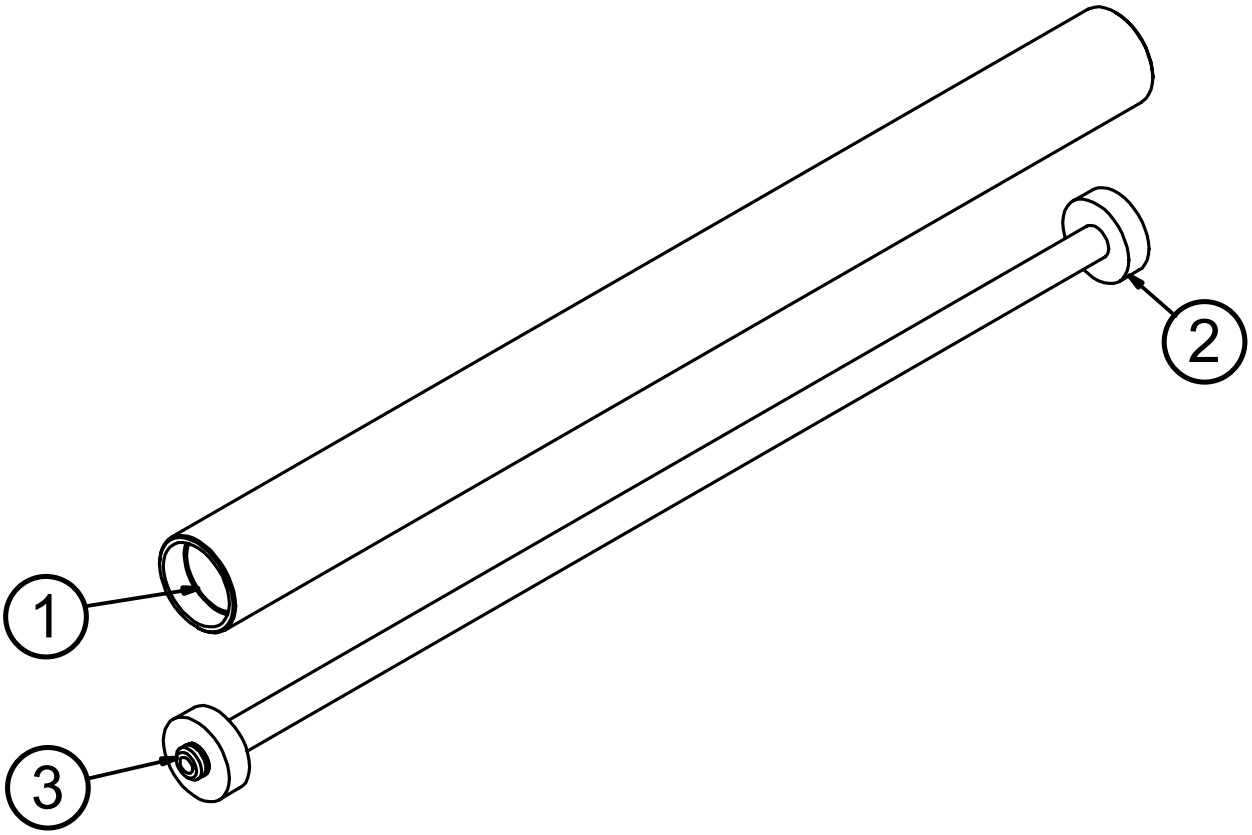
SUBV0041 Front End Roller Assembly

Parts List – FM350-12-0002 | 350 Front End Roller

Item	Part Number	Description	Reference	Quantity
1	VS180014	Front End Roller	FM350-12-12	1
2	VS180096	Bearing - 6900Z 10X22X6	6900Z	2
3	VS180013	Roller Shaft at the Front End	FM350-12-13	1

SUBV0042 Tension Shaft Assembly

Partially Assembled View – FM350-12-0003 | 350 Tension Shaft



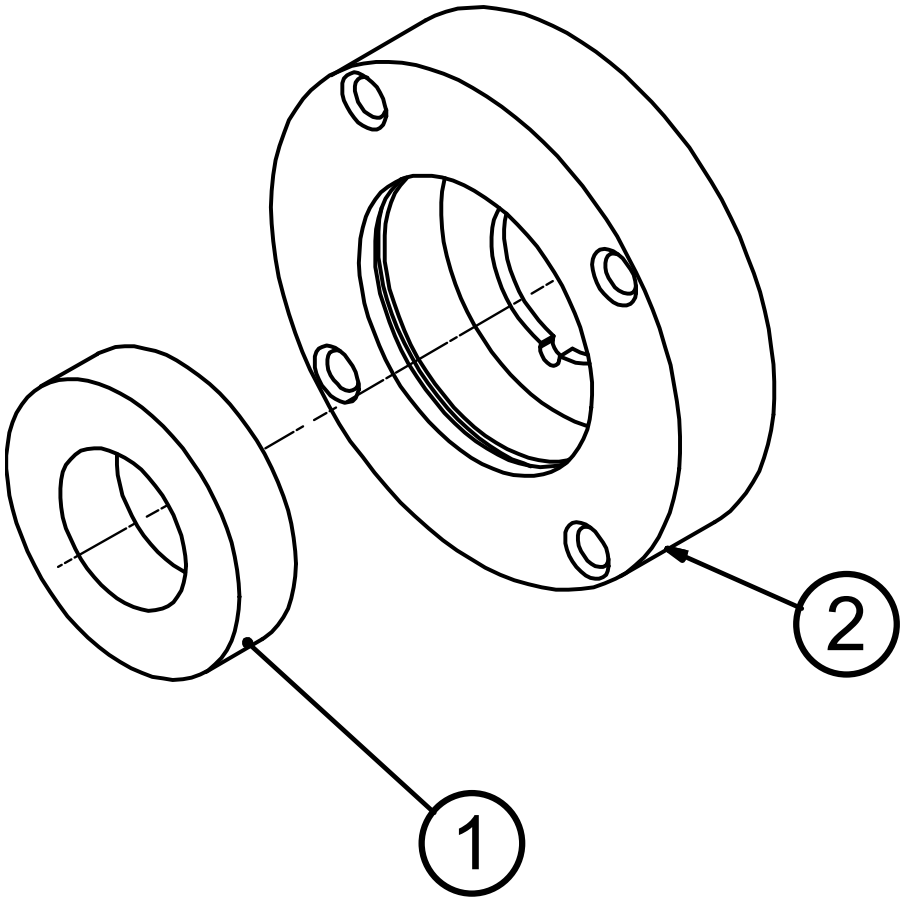
SUBV0042 Tension Shaft Assembly

Parts List – FM350-12-0003 | 350 Tension Shaft

Item	Part Number	Description	Reference	Quantity
1	VS180017	Tension Roller	FM350-12-06	1
2	VS180031	Bearing	6000ZE	2
3	VS180013	Roller Shaft at the Front End	FM350-12-13	1

SUBV0043 Bearing Housing Assembly

Exploded View – FM350-12-0004 | 350 Housing



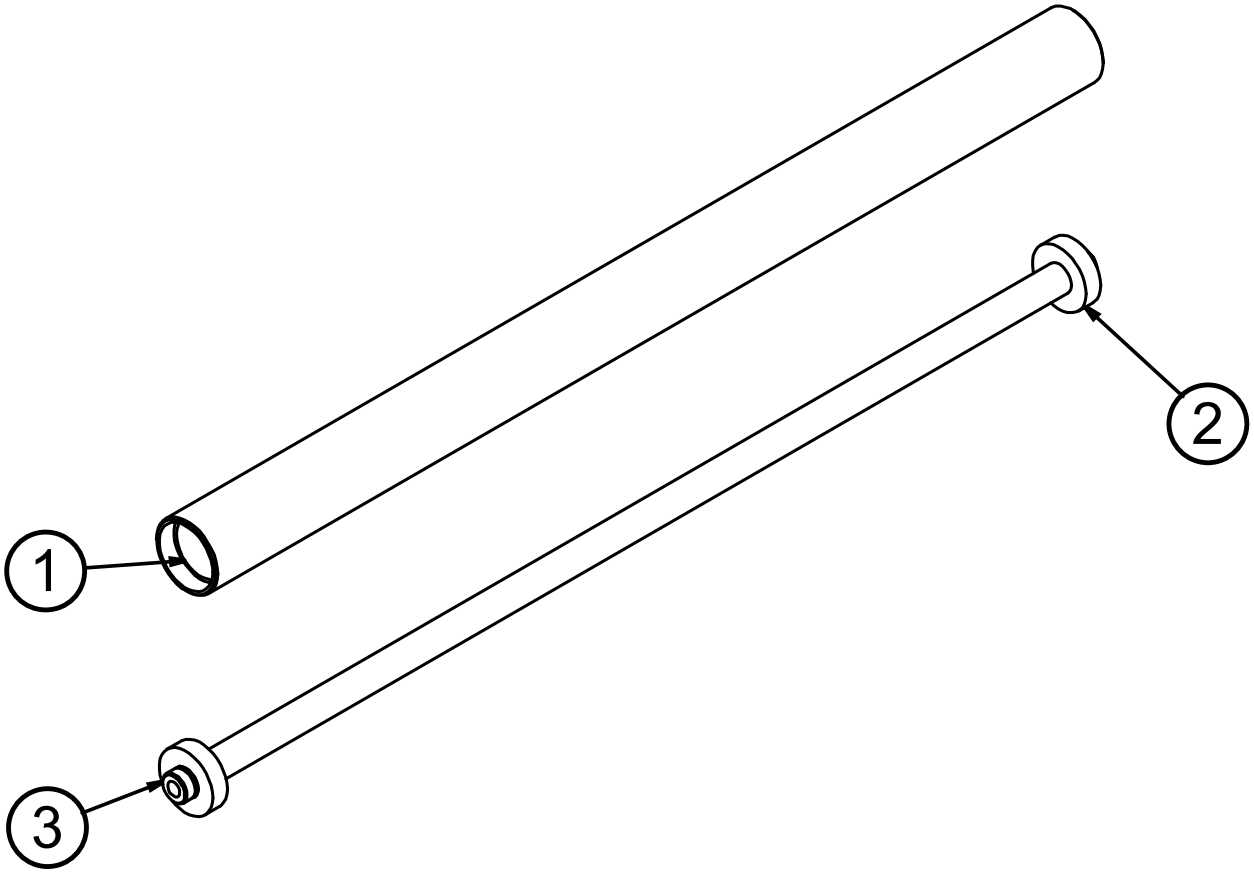
SUBV0043 Bearing Housing Assembly

Parts List – FM350-12-0004 | 350 Housing

Item	Part Number	Description	Reference	Quantity
1	VS180028	Bearing	6190Z	1
2	VS180038	Housing	2005-12-15	1

SUBV0044 Front End Roller Assembly

Partially-Assembled View – FM350-12-0005 | 350 Front End Roller



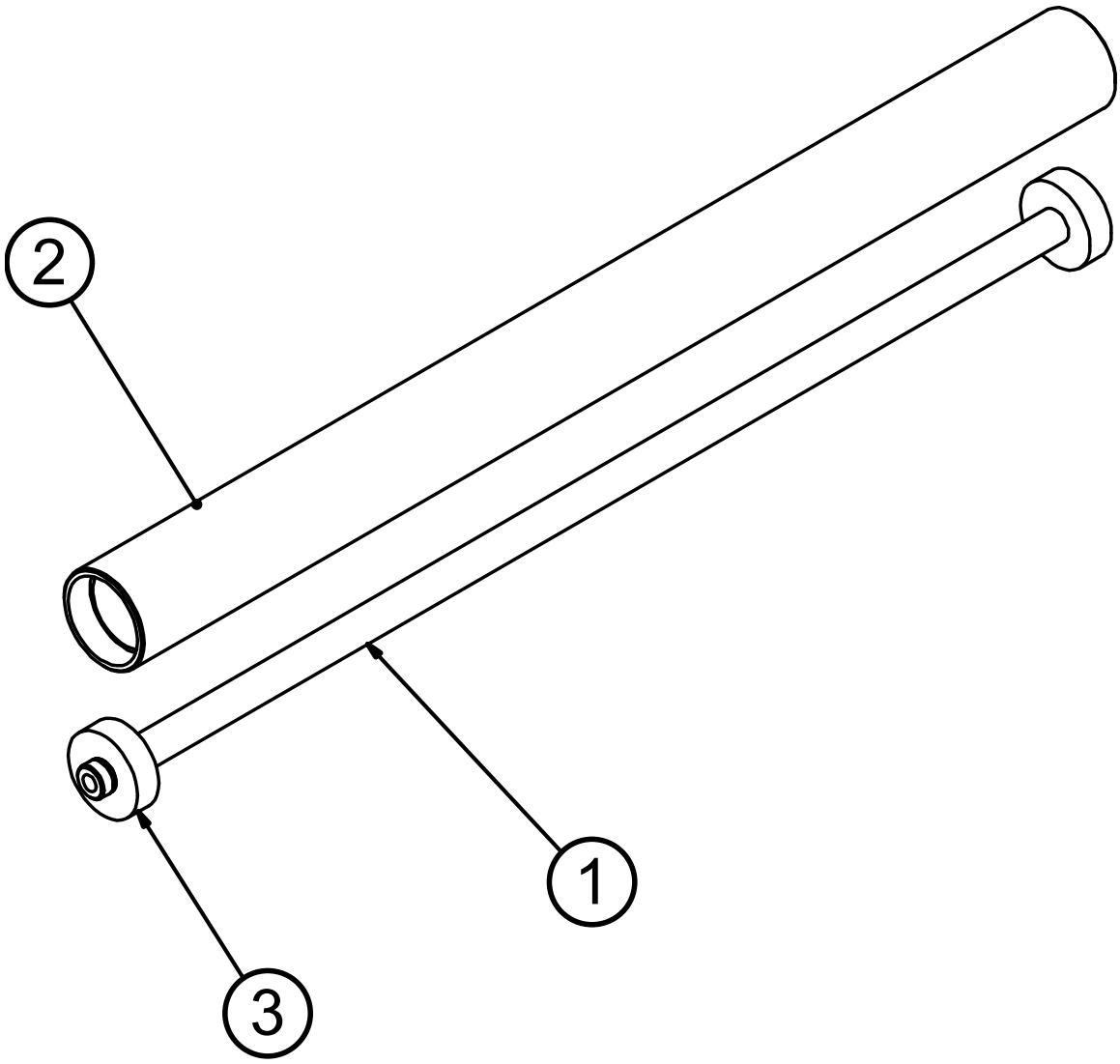
SUBV0044 Front End Roller Assembly

Parts List – FM350-12-0005 | 350 Front End Roller

Item	Part Number	Description	Reference	Quantity
1	VS180014	Front End Roller	FM350-12-12	1
2	VS180096	Bearing	6900Z	2
3	VS180018	Tension Shaft	FM350-12-05	1

SUBV0045 Tension Shaft Assembly

Partially-Assembled View – FM350-12-0006 | 350 Tension Shaft



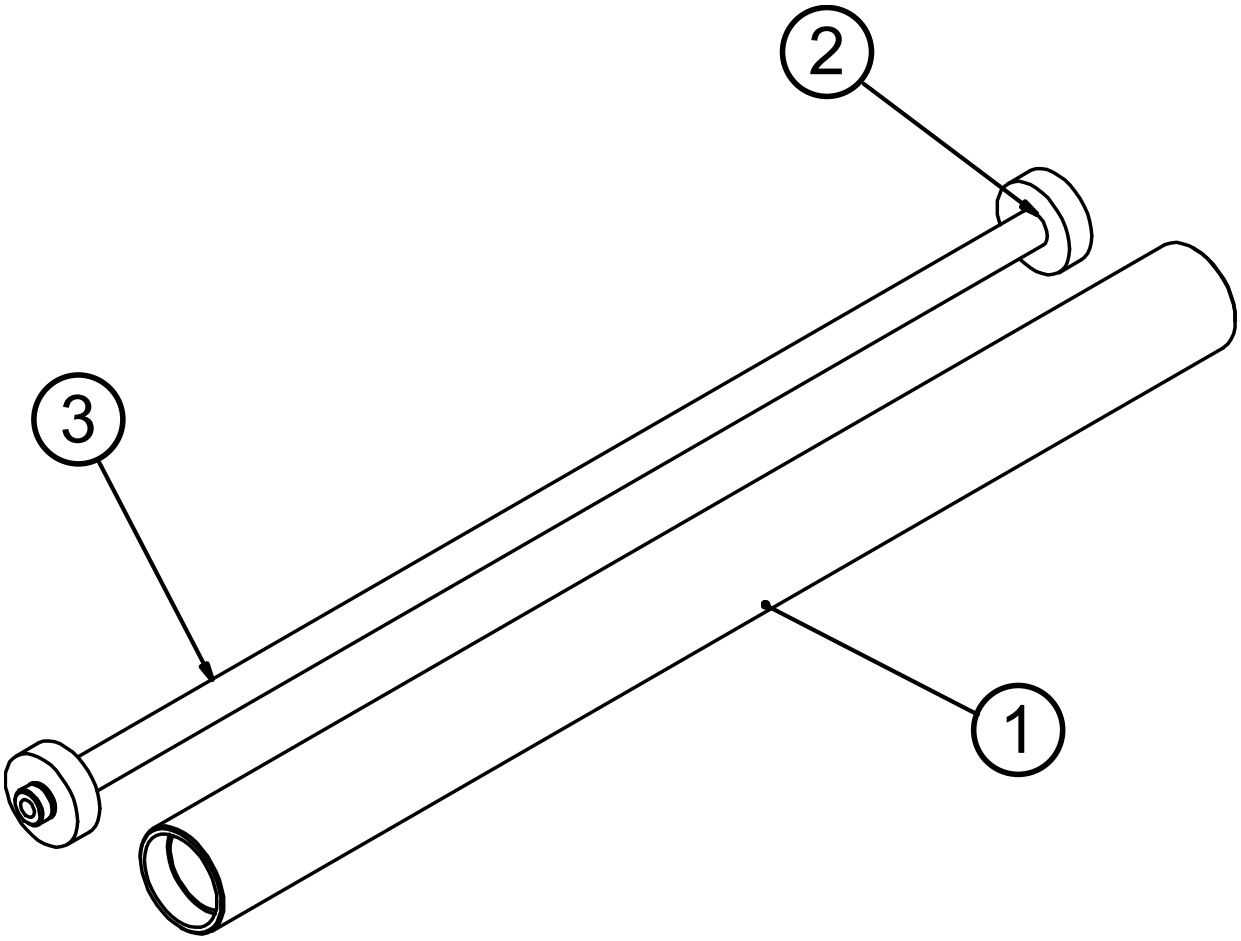
SUBV0045 Tension Shaft Assembly

Parts List – FM350-12-0006 | Tension Shaft

Item	Part Number	Description	Reference	Quantity
1	VS180018	Tension Shaft	FM350-12-05	1
2	VS180017	Tension Roller	FM350-12-06	1
3	VS180031	Bearing	6000ZE	2

SUBV0046 Tension Shaft Assembly

Partially-Assembled View – FM350-12-0007 | 350 Tension Shaft



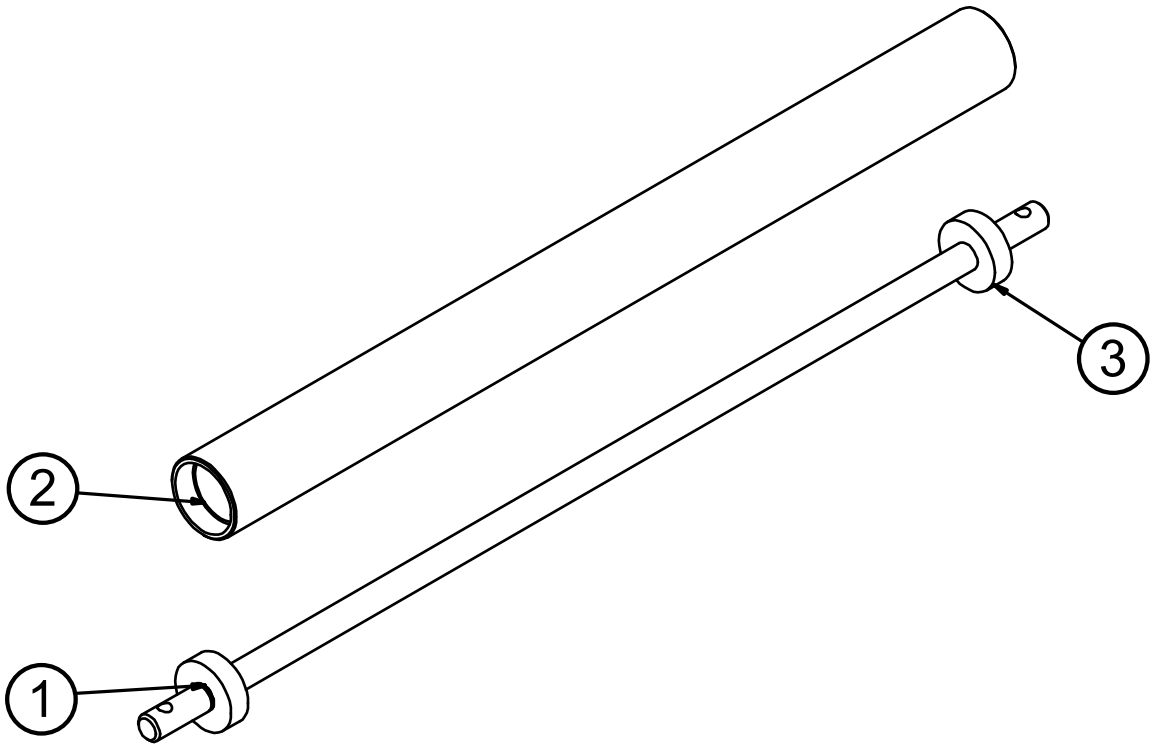
SUBV0046 Tension Shaft Assembly

Parts List – FM350-12-0007 | 350 Tension Shaft

Item	Part Number	Description	Reference	Quantity
1	VS180017	Tension Roller	FM350-12-06	1
2	VS180031	Bearing	6000ZE	2
3	VS180018	Roller Shaft, Front End	FM350-12-05	1

SUBV0047 Tension Shaft Assembly

Partially-Assembled View– FM350-12-0008 | 350 Tension Shaft



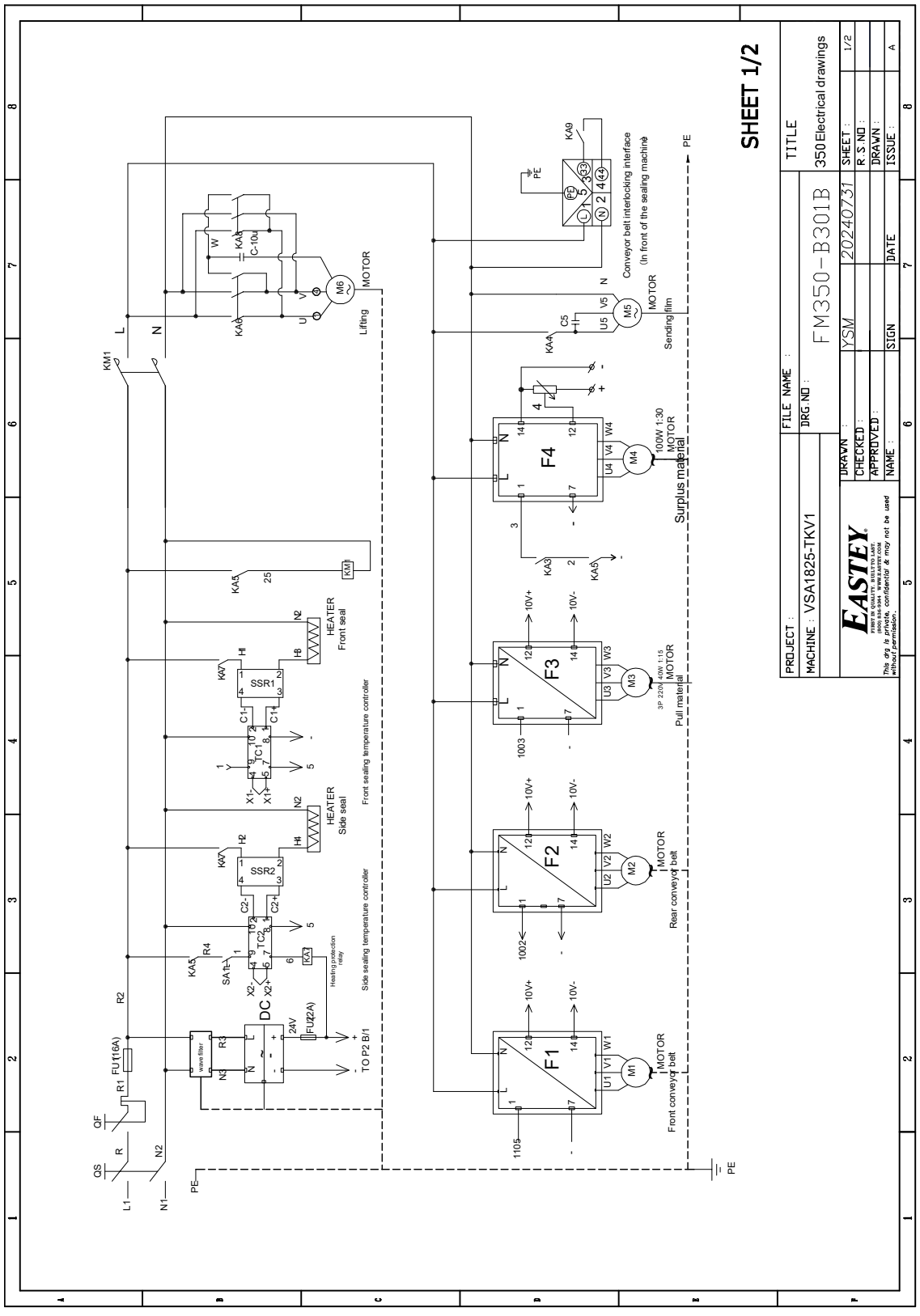
SUBV0047 Tension Shaft Assembly

Parts List – FM350-12-0008 | 350 Tension Shaft

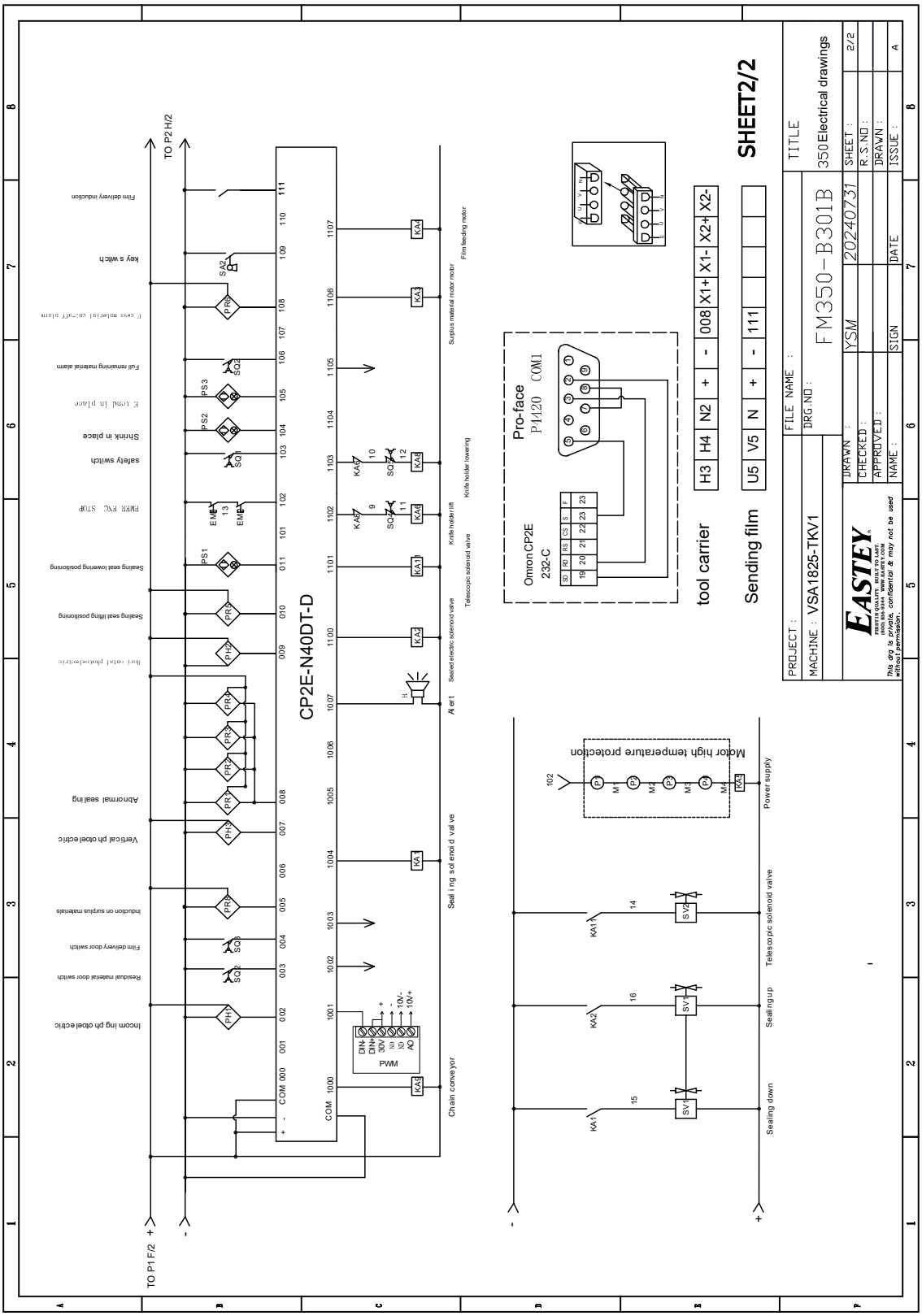
Item	Part Number	Description	Reference	Quantity
1	VS180011	Tension Shaft	FM350-12-19	1
2	VS180017	Tension Roller	FM350-12-06	1
3	VS180031	Bearing	6000ZE	2

Appendix A: Electrical Schematics

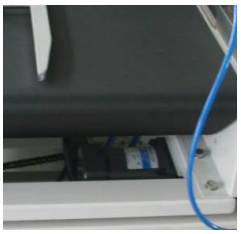
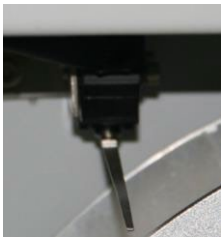
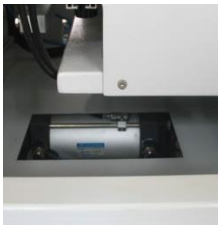
Electrical Schematics — Page 1 of 2



Electrical Schematics — Page 2 of 2



Pictorial Electrical Components List

Item	Photo	Description	Item	Photo	Description
M1		Front Conveyor Motor	PR5		Sealing Knife Positioning Proximity Switch
M2		Rear Conveyor Motor	PR6		Feed Stroke Switch
M3		Film-Pull Motor	PR7 PR8		Scraps Up Proximity Switch & Scraps Down Proximity Switch*
M4		Scrap Motor	SQ-Up SQ-Down		Knife Holder Up-Limit & Down-Limit Position
M5		Film-Feed Motor	SQ2		Scraps Full Alarm
M6		Sealing Knife Lifting Motor			Sealing Cylinder

* Scraps up when film pull stops — controls the scrap motor stop.
** Scraps down when film pull film is broken — controls the scrap motor stop.

Appendix B: Temperature Setting Specifications for Shrink-Wrap Plastics

Polyolefin	Temperature settings: Pad type: Dwell Time:	335° F front bar; 335° F side bar Sponge rubber Approximately 1 second
Polyethylene	Polyethylene film is not	supported at this time.
PVC (Poly-Vinyl Chloride)	Not applicable Use of PVC requires the POF hot knife to be special material,	This machine is not designed for use with PVC film. Use of PVC film will automatically void the warranty.

Warranty Statement
Shrink Packaging Equipment

This Warranty Statement Is Available Online

This Warranty Statement is also available from the Eastey Support Website in electronic format for web browsers and e-readers. Go to Engage Technologies.net >> Eastey >> Case Sealing & Shrink Packaging Equipment >> Warranty >> Shrink Packaging Warranty or scan the QR Code at right using the camera app on your mobile device to go directly to the online version of the most current version this Warranty Statement.

Warranty Statement

Eastey warrants that all of the products it ships will be in good working order and free from defects in material and workmanship for a period of two (2) years from the date of shipment by Eastey and will conform to the published specifications for that product. Purchased parts will be warranted for one (1) year.

Damage caused during transport is the responsibility of the carrier and is not covered under this warranty. All damages detected upon receipt of equipment should be reported immediately to the carrier and Eastey should be notified.

Warranty Period – Specific Items

Any moving or wear parts are covered for 180 days after the date of purchase. This includes items such as conveyor belt, silicone tubing (roller covering), end curtains, felt pad, bearings, and wear rails. The seal pad and fuses are consumable items and are not covered under warranty.

Repairs

All in-house repairs are rigorously tested for optimum operation and performance and warranted to be, under normal and proper use, free from defects in materials and workmanship for a period of 90 days from the date of service.

Shrinking Quality

Shrinking quality achieved in a given application is dependent on the film, product, installation, material handling, and the maintenance provided. Eastey makes no warranty that the shrinking quality achieved in an application will be the same as that achieved on a test piece in our demo facility.

Shipping Policy

Customer pays all incoming shipping charges for replacement components. If the item is defective and under warranty, Eastey will pay all return shipping charges via the least costly method. If expedited shipping is desired, the customer must furnish their shipping account number and shipping fees will be charged to that account.

Exclusions

Damage due to tampering, abuse, improper adjustment, electrical interference, or the use of non-approved components will void any and all warranties by Eastey and its distributors.

EASTEY
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1-800-835-0344 • (763) 705-8856 • Fax (763) 795-8867
info@eastey.com • www.eastey.com

Warranty Verification

If you believe that a product may be defective and may be covered by warranty, obtain a Return Material Authorization number by calling our technical support number (toll free at 1-800-835-9344, or 763-428-4846 or Fax: 763-795-8867) or e-mail info@eastey.com. Based on the recommendation from Eastey technical support, replacement components may be shipped out via UPS Ground or similar method. If expedited shipping is desired, customer must furnish their shipping account and shipping fees will be charged to that account.

Customer is required to return the defective component to Eastey. If after 30 days, Eastey hasn't received the defective component, the customer will be invoiced for the replacement component. If the returned component is found to not be eligible for warranty, Eastey will contact the customer and the customer will be invoiced for the replacement component.

Warranty within 60 days of invoice

For warranty questions that take place within 60 days of the original invoice, Eastey will allow cross-shipment of a replacement component to an end-user customer or Eastey distributor. The customer will be invoiced for the replacement component 60 days after it ships. Upon receipt of the returned component, Eastey will evaluate it and issue credit where necessary.

For components that have been misused or externally damaged, Eastey will not issue credit, and will contact the customer to determine whether or not they want the component repaired and/or returned.

Warranty after 60 days of invoice

For warranty questions that take place more than 60 days from the original invoice, Eastey requires the end-user or Eastey distributor to return the component to Eastey for repair. Upon receipt of the returned component, Eastey will evaluate it and repair as necessary.

Components that fall within our warranty policy will be repaired normally within 5 business days of receipt and returned to the customer via standard ground shipping at Eastey's expense. If expedited shipping is required, the customer must furnish their shipping account number and shipping fees will be charged to that account.

For components that have been misused or externally damaged, Eastey will contact the customer to determine whether or not they want the component repaired and/or returned.

Warranty Eligibility

The warranty provided by Eastey will only be covered provided that:

- Equipment usage is proper and normal
- Equipment is still owned by the original buyer
- Equipment has been operated in accordance with generally approved practice and in accordance with Eastey's specifications and instructions
- No repairs, alterations, or replacement have been made by others without Eastey's prior written approval
- Genuine Eastey repair components are used during the warranty period

Limited Warranty

THIS WARRANTY SHALL NOT APPLY IF ANY MODIFICATION, ALTERATION OR ADDITION IS MADE TO THE PRODUCT WITHOUT EASTEY'S PRIOR WRITTEN APPROVAL. FURTHERMORE, THIS WARRANTY DOES NOT APPLY TO PRODUCT DEFECTS DUE TO MISUSE, ABUSE, NEGLECT, OR FAILURE TO FOLLOW THE RECOMMENDED PROCEDURES. ANY PRODUCT REPAIRED OR ALTERED BY PERSONS OTHER THAN

AUTHORIZED EASTEY REPRESENTATIVES WILL NOT BE COVERED BY THIS WARRANTY. THIS WARRANTY DOES NOT APPLY TO CONSUMABLE ITEMS.

EXCEPT AS EXPRESSLY PROVIDED IN THIS WARRANTY, EASTEY MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED WITH RESPECT TO THE PRODUCT, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR ANY OTHER MATTER. EASTEY SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES OF ANY DESCRIPTION WHETHER ARISING OUT OF WARRANTY OR ONTHER CONTRACT, NEGLIGENCE OR OTHER TORT, OR OTHERWISE. NO AGENT, EMPLOYEE, OFFICER, OR OTHER REPRESENTATIVE OF EASTEY HAS AUTHORITY TO BIND EASTEY TO ANY REPRESENTATION OR WARRANTY EXCEPT AS STATED HEREIN. UNDER NO CIRCUMSTANCES SHALL EASTEY'S LIABILITY HEREUNDER, FOR ANY REASON OR CAUSE EXCEED THE PRICE PAID TO EASTEY FOR THE PRODUCT.

Disclaimer of Damages

REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL EASTEY BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, INCLUDING LOST PROFIT OR LOST OPPORTUNITIES OF ANY TYPE ARISING OUT OF THE USE OR INABILITY TO USE THESE PRODUCTS EVEN IF EASTEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Terms and Conditions

Eastey's Terms and Conditions of Sale are set forth separately at WWW.EASTEY.COM and are hereby incorporated by reference into this warranty statement as if fully set out within.

Customer Support

Eastey Technical Service

For help setting up or operating the VSA Value Series Auto L-Sealer, please contact Eastey Technical Service at one of the numbers listed below.

Toll-Free Phone	800-835-9344
Phone	763-428-4846
Fax	763-795-8867
E-mail	info@eastey.com
Web	www.eastey.com

Thank you again for your purchase of Eastey products. We are pleased to be a part of your packaging needs.


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