



USER MANUAL

USC 2024-BB



For Serial Numbers:
TM200 XX X XXX



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Chapter 1 **GENERAL INFORMATION**

1.1 REVISION CONTROL

REV00Initial Release

1.2 TECHNICAL SUPPORT

This is the Interpack Model USC 2024-BB 3" Uniform Semi-Automatic Case Sealer you ordered. It has been set up and tested in our factory with Intertape manufactured pressure sensitive tapes. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this item.

If contact with the authorized distributor is not possible, Interpack Technical Support is available. Should the need to contact Interpack Technical Support arise, please have the Case Sealer model number and serial number on hand. This information can be found on the nameplate of the side panel of the machine. Interpack Technical Support is available during normal business hours (Eastern Time).

- **PHONE: 813-621-8410 x101**

If you have a technical question that does not require an immediate response, you may contact Interpack by fax.

- **FAX: 813-621-8449**

Technical support may also be contacted via email at the address below:

- **EMAIL: Machsupp@itape.com**

1.3 REPLACEMENT PARTS

This Machine Is Designed To Provide Years Of Trouble Free Operation. However, Maintaining A Small Inventory Of Spare Parts Assures Minimum Downtime In The Event Of A Problem. We Recommend That You Stock The Following Spare Parts.

DESCRIPTION	ITEM NUMBER	RECOMMENDED QUANTITY
3 in. Drive Belts	UPM5769	2
Drive Motor	UPM5770	1
Crank Handle	UPM5730	1
E-Stop Button	UPM3892	1
Start Button	UPM5734	1
Top Squeezer Wheel	UPM5814	2

Table 1-1 Replacement Parts

Replacement Parts

Order parts by item number, part description, and quantity required. Replacement parts are available from your authorized Interpack distributor exclusively.

Should you require assistance selecting the correct part, you may call:

Intertape Polymer Group
Interpack Machinery
9940 Currie Davis Drive, Suite 23B
Tampa, FL, 33619

Tel: 1-800-474-8273, Option 3
Fax: 1-800-462-1293

MODEL: _____

SERIAL NUMBER: _____

DISTRIBUTOR PURCHASED FROM: _____

DATE OF PURCHASE: _____

1.4 FIELD SERVICE ASSISTANCE

This machine is designed to provide years of trouble-free operation. If any problems arise with this machine during the normal course of operation, your properly trained and qualified internal service personnel should be able to repair any issues after consulting Chapter 6, [Troubleshooting](#).

Service support is available from your authorized Interpack distributor at additional cost if the problem cannot be remedied after consulting the Troubleshooting chapter of this manual.

1.5 WARRANTY

EQUIPMENT WARRANTY AND LIMITED REMEDY: The following warranty is made in lieu of all other warranties, express or implied, including but not limited to the implied warranty of merchantability, the implied warranty of fitness for a particular purpose, and any implied warranty arising out of a course of dealing, a custom or usage of trade:

Intertape sells its Interpack Tape Heads, Case Tapers, and Case Erectors with the following warranties:

1. The HSD® 2000 ET II Tape Heads' knife blades, springs and wipe down rollers will be free from all defects for a period of ninety (90) days.
2. All other HSD® 2000 ET II Tape Head parts will be free from all defects for one (1) year after delivery.
3. Water Activated Tape Head blades will be free from defects for ninety (90) days after delivery.
4. Drive Belts will be free from defects for ninety (90) days after delivery.
5. The Gear Motors will be free from defects for one (1) year after delivery.
6. All other components for Case Tapers and Case Erectors will be free from defects for one (1) year after delivery.

If any part is proven defective within its warranty period, then the exclusive remedy and Intertape's and the seller's sole obligation shall be, at Intertape's option, to repair or replace the part, provided the defective part is returned immediately to Intertape's factory or an authorized service station designated by Intertape.

A part will be presumed to have become defective after its warranty period unless the part is received or Intertape is notified of the problem no later than five (5) calendar days after the warranty period.

If Intertape is unable to repair or replace the part within a reasonable time, then Intertape, at its option, will replace the equipment or refund the purchase price. Intertape shall have no obligation to install the repaired or replacement part.

Intertape shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. Intertape shall have no obligation to repair or replace (1) those parts failing due to: operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts.

1. Failure or damage is due to misapplication, lack of proper maintenance, abuse, improper installation or abnormal conditions such as temperature, moisture, dirt or corrosive matter, etc.
2. Failure due to inadequate cleaning, improper operating environment, improper utilities or operator error.
3. Failure due to operations above the rated capacities, or in any other improper manner, either intentional or otherwise.
4. Failure is due to equipment, which has been altered by anyone other than an authorized representative of Intertape Polymer Group.
5. Failure is due to an attempt by the purchaser to correct alleged defective equipment. In this event the purchaser is responsible for all expenses incurred.

LIMITATION OF LIABILITY: Intertape and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by written agreement signed by authorized officers of Intertape and seller.

1.6 DESCRIPTION OF USC 2024-BB 3" UNIFORM SEMI-AUTOMATIC CASE SEALER

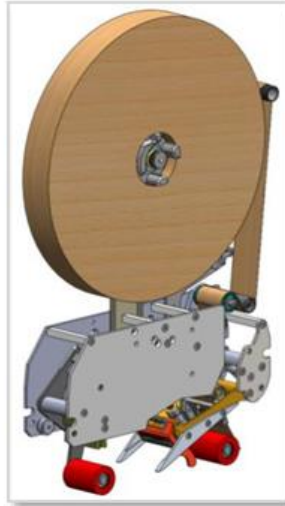
This machine is designed to provide years of trouble free operation. If any problems arise with this machine during the normal course of operation, your properly trained and qualified internal service personnel should be able to repair any issues after consulting the [Troubleshooting](#) section of this manual.



Figure 1-1 USC 2024-BB 3" Uniform Semi-Automatic Case Sealer

The Interpack USC 2024-BB 3" Uniform Semi-Automatic Case Sealer with HSD® 2000 ET II Tape Heads is designed to apply Intertape brand pressure sensitive case sealing tape to the top and bottom center seam of regular slotted corrugated cases. The USC 2024-BB 3" Uniform Semi-Automatic Case Sealer is manually adjustable to a wide range of case sizes (refer to Case Specifications, [page 3-3](#)). Multi-Wheel Top Squeezers compress the top major flaps ensuring superior seal. The USC 2024-BB 3" Uniform Semi-Automatic Case Sealer features reversible operator controls to facilitate its adaptation into an existing conveyor line.

1.7 OPTIONAL EQUIPMENT



2" Tape Head



Casters

Figure 1-2 Optional Equipment

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Chapter 2

IMPORTANT SAFEGUARDS

2.1 SAFETY LABELS

There is a number of safety labels used on the USC 2024-BB 3" Uniform Semi-Automatic Case Sealer. These labels are placed at different locations on the machine to warn operators and service personnel of possible dangers (refer to [Figure 2-1](#)). Please read the labels on the machine and the following safety precautions before using the machine.

- ✓ **Read this manual for other important safety operating and service information.**
- ✓ **Only trained personnel are to operate machine.**
- ✓ **Only fully qualified technicians are to service this machine.**
- ✓ **Wear safety glasses.**
- ✓ **Shut off power to machine before adjusting machine or loading & threading tape heads.**
- ✓ **Disconnect electrical power and compressed air (where applicable) before servicing.**
- ✓ **Follow Lock Out/Tag Out Procedures BEFORE servicing any machinery.**
- ✓ **All covers and guards must be in place before operating.**
- ✓ **Stay clear of moving parts which can shear and cut.**
- ✓ **Never operate the Tape Heads with the Knife Guard removed.**

Note: Should any of the safety labels placed on the Case Sealer be damaged or destroyed, replacements are available through your distributor.

2.2 SAFETY LABEL PLACEMENT

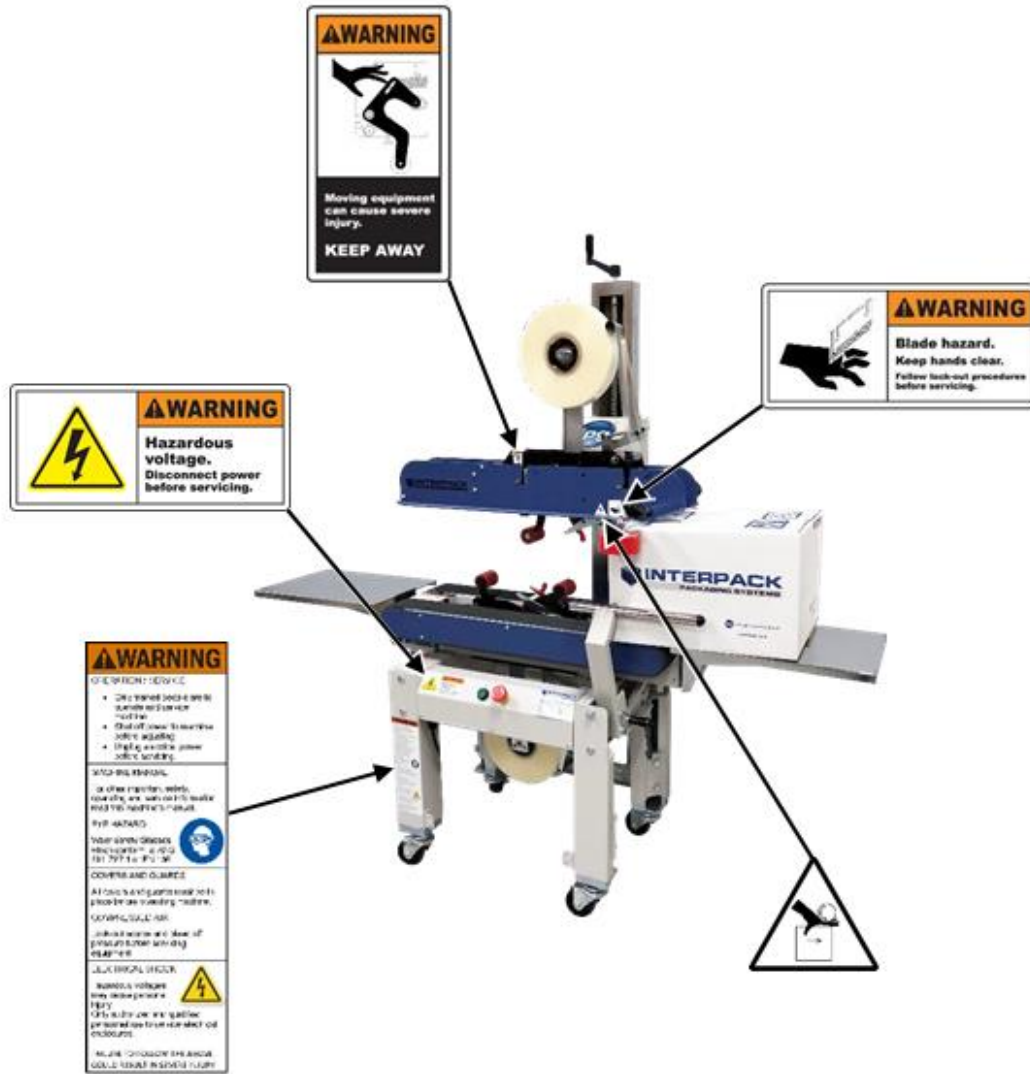






Figure 2-1 Safety Label Placement

2.3 SAFETY LABEL DESCRIPTIONS

There Are A Number Of Safety Labels Used On Intertape Case Sealers.

<p>The label shown is affixed to the upper tape head assembly on both sides of the machine. It warns operators and service personnel of the presence of the cutting blade that may not be visible. Caution should be exercised when approaching this area.</p>	 <p>A rectangular safety label with a white background and a black border. On the left, there is a black silhouette of a hand reaching towards a white cutting blade. On the right, there is an orange header with the word "WARNING" in white. Below the header, the text reads: "Blade hazard. Keep hands clear. Follow lock-out procedures before servicing."</p>
<p>The label shown alerts the operator of a potential pinch point when a case processes through the machine. Caution should be exercised when approaching this area.</p>	 <p>A rectangular safety label with a white background and a black border. At the top, there is an orange header with the word "WARNING" in white. Below the header is a black silhouette of a hand being caught between two moving mechanical parts. At the bottom, there is a black footer with the text: "Moving equipment can cause severe injury. KEEP AWAY"</p>
<p>The label shown is affixed to the top squeezer assembly brackets on either side of the machine. They warn the operator of a potential pinch point between the top of the case and the top squeezer rollers. Keep hand away from this area when processing a case.</p>	 <p>A triangular warning sign with a black border and a white background. Inside the triangle, there is a black silhouette of a hand being caught between a case and a roller. Below the hand, there is a small white box with a black arrow pointing to the right.</p>
<p>The label shown is affixed to the electrical control box. The label warns the service personnel to unplug the power supply before attempting any service work on the case sealer.</p>	 <p>A rectangular safety label with a white background and a black border. On the left, there is a yellow triangular warning sign with a black lightning bolt symbol. On the right, there is an orange header with the word "WARNING" in white. Below the header, the text reads: "Hazardous voltage. Disconnect power before servicing."</p>

The label shown is affixed on the side of the column. This label provides convenient safety instructions for the operator and service personnel in the operation of the Intertape Case Sealing Equipment.

! WARNING

OPERATION / SERVICE

- Only trained people are to operate and service machine.
- Shut off power to machine before adjusting.
- Unplug electrical power before servicing.

MACHINE MANUAL

For other important safety, operating and service information read this machine's manual.

EYE HAZARD

Wear Safety Glasses which conform to ANSI Std. Z87.1 or EN 166



COVERS AND GUARDS

All covers and guards must be in place before operating machine.

COMPRESSED AIR

Lock-out source and bleed off pressure before servicing equipment.

ELECTRICAL SHOCK


Hazardous voltages may cause personal injury. Only authorized and qualified personnel are to service electrical enclosures.




FAILURE TO FOLLOW THE ABOVE COULD RESULT IN SEVERE INJURY.

Note: Should any of the safety labels placed on the Case Sealer be damaged or destroyed, replacements are available through your distributor.

2.4 EXPLANATION OF SIGNAL WORD CONSEQUENCES

 **WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury or property damage.

 **CAUTION:** Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury or property damage.

WARNING

- **To reduce the risk associated with mechanical, pneumatic, and electrical hazards:**
 - a. Read, understand, and follow all safety and operating instructions before operating or servicing the case sealer.
 - b. Allow only properly trained and qualified personnel to operate and service this equipment.
- **To reduce the risk associated with pinches, entanglement, and hazardous voltage:**

Turn electrical supply off and disconnect before performing any adjustments, maintenance, or servicing of the machine or taping heads.
- **To reduce the risk associated with pinches and entanglement hazards:**
 - a. Do not leave the machine running while unattended.
 - b. Turn the machine off when not in use.
 - c. Never attempt to work on any part of the machine, load tape, or remove jammed boxes from the machine while the machine is running.
- **To reduce the risk associated with hazardous voltage:**

Position electrical cord away from foot and vehicle traffic.
- **To reduce the risk associated with sharp blade hazards:**

Keep hands and fingers away from tape cutoff blades. Blades are extremely sharp.
- **To reduce the risk associated with fire and explosion hazards:**

Do not operate this equipment in potentially flammable/explosive environments.
- **To reduce the risk associated with muscle strain:**
 - a. Use the appropriate rigging and material handling equipment when lifting or repositioning this equipment.
 - b. Use proper body mechanics when removing or installing taping heads that are moderately heavy or may be considered awkward to lift.

CAUTION

- **To reduce the risk associated with pinch hazards:**
 - a. Keep hands clear of the upper head support assembly as boxes are transported through the machine.
 - b. Keep hands, hair, loose clothing, and jewelry away from box compression rollers.
 - c. Always feed boxes into the machine by pushing only from the end of the box.
 - d. Keep hands, hair, loose clothing, and jewelry away from moving belts and taping heads.

2.5 OPERATOR SKILL LEVEL DESCRIPTIONS

Important: The area supervisor must ensure that the operator has been properly trained on all machine functions before operating the machine.

2.5.1 Skill "A" Machine Operator

This operator is trained to use the machine with the machine controls. This operator can feed cases into the machine, make adjustments for different case sizes, change tapes, and start/stop, and re-start production.

2.5.2 Skill "B" Mechanical Maintenance Technician

This technician is trained to use the machine as the machine operator, and is able to work with the safety protection disconnected, check and adjust mechanical components, perform maintenance operations, and repair the machine. He is not allowed to work on live electrical components.

2.5.3 Skill "C" Electrical Maintenance Technician

This technician is trained to use the machine as the machine operator, and is able to work with the safety protection disconnected, check and adjust mechanical components, perform maintenance operations, and repair the machine. He is allowed to work on live electrical panels, terminal blocks, and control equipment.

2.5.4 Skill "D" Manufacturer's Technician

Skilled technician sent by the manufacturer, or its agent, to perform complex repairs or modifications, when agreed to by the customer.

Operation	Machine Condition	Operator Skill Level	Number of Operators
Machine Installation & Set-Up	Running with Safety Protections Disabled	B & C	2
Adjusting Case Size	Stopped by Pressing the Emergency Stop (E-Stop) Button	A	1
Tape Roll Replacement	Stopped by Pressing the Emergency Stop (E-Stop) Button	A	1
Blade Replacement	Electrical Power Disconnected	B	1
Drive Belt Replacement	Electrical Power Disconnected	B	1
Ordinary Maintenance	Electrical Power Disconnected	B	1
Extraordinary Mechanical Maintenance	Running with Safety Protections Disabled	D	1
Extraordinary Electrical Maintenance	Running with Safety Protections Disabled	C	1

Table 2-1 Operators Skill Level

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Chapter 3 **SPECIFICATIONS**

3.1 MACHINE DIMENSIONS

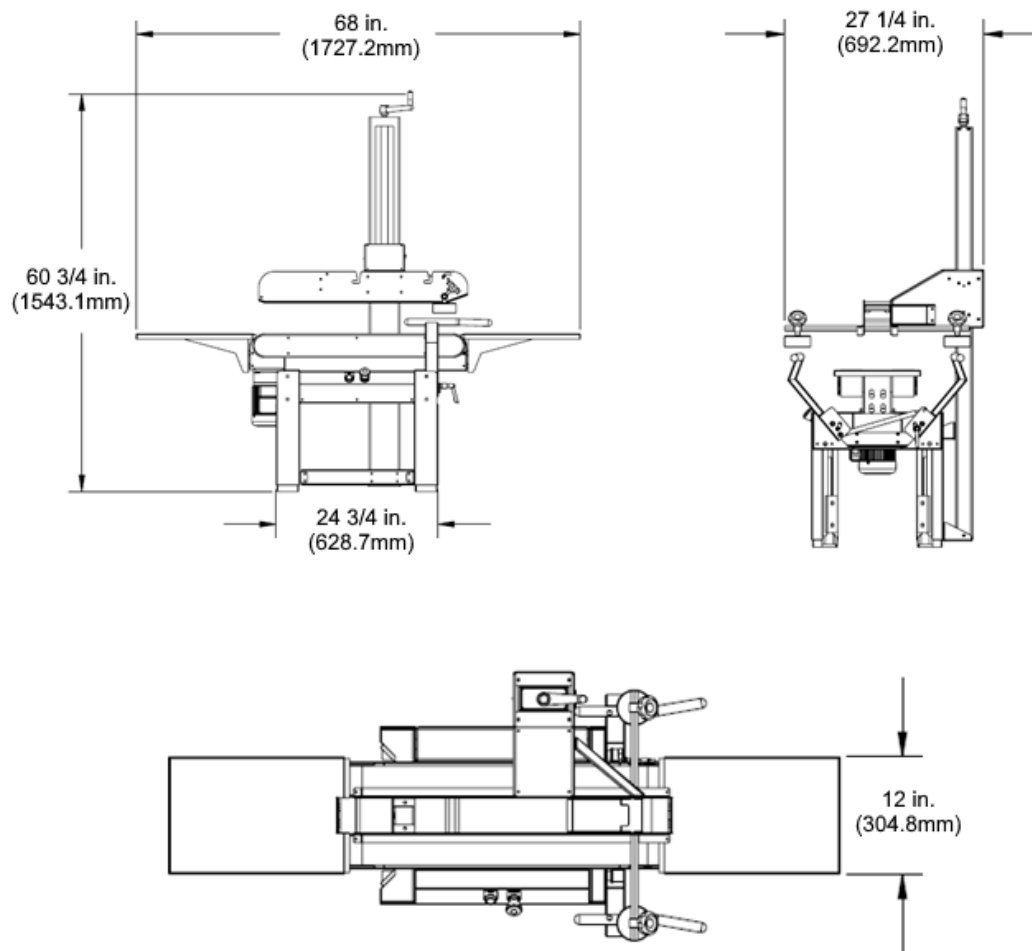


Figure 3-1 Machine Dimensions

3.2 MACHINE COMPONENTS



Figure 3-2 Machine Components

3.3 MACHINE OPERATING CONDITIONS

Always operate the machine in a dry, relatively clean environment at 40 to 105 °F (5 to 40 °C) with clean, dry cases. Machine must be set on a level surface or adjusted to operate on a level plane.

Note: Machine should not be washed down or subjected to conditions causing condensation on components.

3.3.1 Power Requirements

- Electrical - 110V, 60HZ, 6A
- Compressed Air – N/A

This machine comes standard with one gear motor, drive base and start/stop station.

The electrical box contains a **Start** switch, the **Emergency Stop** switch, and a starting relay with a thermal over load. An 11 ft. (3.4m) standard three conductor power cord with plug is provided for **115V, 60HZ, 15A** service. The receptacle providing this service **must** be properly grounded.

3.3.2 Operating Speed

Actual production rate is dependent on operator's dexterity and the case size mix. Boxes must be separated by 14 in. (355.6mm). Belt speed is 82 ft./min (24.9 m/min).

3.3.3 Tape Specifications

Use **IPG Pressure Sensitive Case Sealing Tape**. The machine can accommodate tape widths of 2 in. (50.8mm).

The standard Tape Leg Length of 2.25 in. (57.2mm) is factory set. The standard tape leg length may vary up to ¼ in. (6mm) based on tape tension and line speed.

The standard tape leg length is adjustable +/- ¼ in. Refer to the tape head manual for adjustment of tape leg length.

Note: For further specifications on the Tape Heads, consult the Tape Head Manual for your specific Tape Head.

3.3.4 Case Specifications

Type

- Regular Slotted Containers (RSC).
- Other style cases may be processed. Consult factory for details.

Material

125 - 275 PSI Bursting Test, Single or Double Wall B or C Flutes.

Weight

65 lbs. (29.5kg) maximum

Size

The case sealer can accommodate most cases within the size ranges listed below.

Machines Equipped with 2 in. Tape Heads			
Case Size	Length	Width	Height
Minimum	6 in. (150mm)	6 in. (150mm)	4.75 in. (120mm)
Maximum	Infinite	20 in. (508mm)	24 in. (609mm)

Table 3-1 Case Sizes

3.3.5 Case Processing Stability

For optimal performance, the cases should be stable when processing through the machine. Unstable cases may tilt backwards upon contact with the upper tape head causing the machine to jam.

If the box length (in direction of seal) to box height ratio is 0.75 in. (19mm) or less, then several boxes should be test run to ensure proper machine performance. The formula is as follows:

$$\frac{\text{CASE LENGTH IN DIRECTION OF SEAL}}{\text{CASE HEIGHT}} > 0.75 \text{ in. (19mm)}$$

Notes

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Chapter 4

SET-UP PROCEDURES

4.1 RECEIVING AND HANDLING

The machine is shipped to the customer fixed to a pallet. The machine is enclosed with either a corrugated sleeve and cap or an HSC corrugated box. The sequence below is step by step instructions to remove all packing materials (refer to Figure 4-1).

1. Remove the strapping that secures the corrugated sleeve and cap, or HSC corrugated box, to the pallet.
2. Lift off the cap and corrugated sleeve or HSC corrugated box.
3. Remove protective wrapping from machine.
4. Remove or relocate all securing devices such as tie wraps or locking collars.
5. Remove the mounting bolts that secure the machine to the shipping pallet.
6. Remove machine from the pallet to the location of final installation.

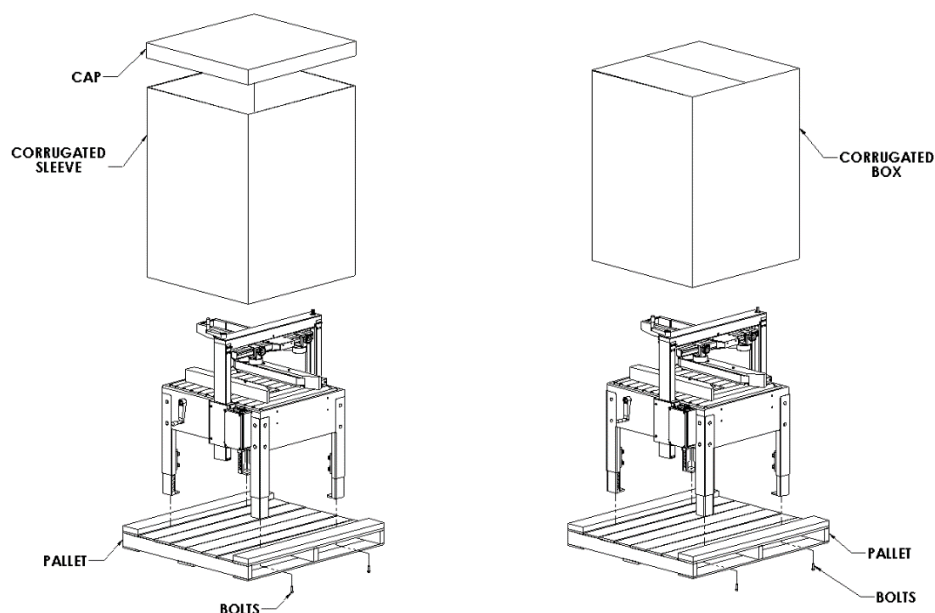


Figure 4-1 Receiving and Handling

All contents must be verified upon receipt. The following items are included with each machine:

- USC 2024-BB 3" Uniform Semi-Automatic Case Sealer
- Operation Manual Machine
- Operators Manual Tape Head
- Plastic bag containing tape head spare parts

Note: After unpacking the Case Sealer, look for any damage that may have occurred during shipping. Should the case sealer be damaged, file a claim with the transport company and notify your authorized Intertape distributor.

4.2 CASTER INSTALLATION (IF PURCHASED)

⚠ WARNING: CASTER INSTALLATION REQUIRES RAISING THE MACHINE TO ACCESS THE BOTTOM OF EACH LEG. FOLLOW ALL POSSIBLE SAFETY PROCEDURES PRIOR TO AND DURING THIS PROCESS.

1. With a forklift, raise the machine to allow access to the bottom of each leg (refer to Figure 4-2).
2. Screw a caster into each leg until it is firmly seated to the bottom of the leg.
3. Tighten each caster.
4. **Do not adjust the conveyor height by adjusting the caster.** Proper conveyor height must be achieved by adjusting the leg extension of each leg (refer to [Figure 4-3](#)).

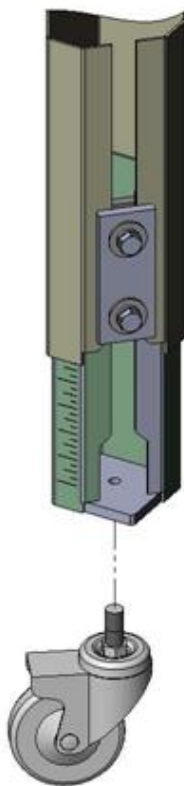


Figure 4-2 Caster Installation

4.3 MACHINE HEIGHT ADJUSTMENT

⚠ WARNING: MACHINE HEIGHT ADJUSTMENT REQUIRES RAISING THE MACHINE TO ADJUST EACH LEG. FOLLOW ALL POSSIBLE SAFETY PROCEDURES PRIOR TO AND DURING THIS PROCESS.

The USC 2024-BB 3" Uniform Semi-Automatic Case Sealer must be installed on near-level ground. Use the adjustable legs to ensure that the machine is level and firmly on the ground (no rocking). Adjust the leg height with the four telescopic extension legs to accommodate conveyor heights from 24 - 30 in. (609.6 - 762mm) (refer to Figure 4-3).

1. To adjust the height of the Case Sealer, use a forklift to raise the machine to give ample room to extend the legs.
2. Using a 19mm box end wrench, loosen eight 12mm hex head adjustment bolts.
3. Adjust the legs to the desired conveyor height and tighten bolts. Etched lines on the legs ease leveling.

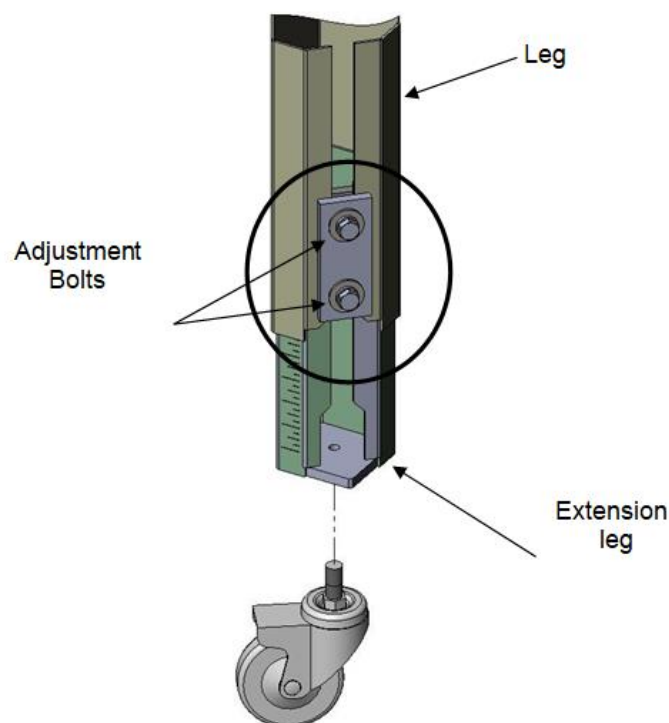


Figure 4-3 Machine Height Adjustment

4.4 INSTALLATION OF INTERPACK BRAND IN-FEED AND EXIT TABLES (INCLUDED)

Install the infeed and exit tables by matching the slots with the studs on the machine and sliding the table down.



(A)



(B)

Figure 4-4 In-Feed and Exit Roller Tables

4.5 INSTALLATION OF EXTERNAL IN-FEED AND EXIT CONVEYORS

1. Customer supplied in-feed conveyor (if used) should provide straight and level entry into the case sealer (refer to Figure 4-5).
2. Customer supplied gravity exit conveyor (if used) should be straight and declined no more than 0.24 in./ft. (20mm/meter) away from the machine to convey the sealed cases away from the machine.
3. Customer supplied powered exit conveyor should be straight and level to convey the sealed cases away from the machine.



Figure 4-5 Installing In-Feed and Exit Conveyors

4.6 MACHINE FINAL ASSEMBLY

The machine is shipped with the adjustment handles packaged in a plastic bag. These handles must be installed on the machine prior to making any adjustments (refer to Figure-4-6).

1. Case Height Adjustment Handle.
 - a. Using a 4mm Allen Key provided, back out Set Screw to allow for placement of the handle on the square shaft.
 - b. Install adjustment handle onto square shaft.
 - c. Tighten Set Screw to square shaft.
2. Case Width Adjustment Handle.
 - a. Screw in the handle until tight.
 - b. Pull back the handle to set the position.



Figure 4-6 Machine Final Assembly

4.7 CONNECTING UTILITIES

4.7.1 Electrical Utilities

An 11 foot (3.4m) standard three conductor power cord with plug is provided for 115V, 60Hz, 15A electrical service. The receptacle must be properly grounded. Before the machine is plugged into the receptacle, ensure that all materials are removed from the machine. The electrical control is protected with an automatic circuit breaker with resettable overload (refer to Figure 4-7).

The electrical control box can be located on either side of the Case Sealer for customer convenience. It contains the green **ON** push button and the red **E-Stop** re-settable push button, which is to be used both for emergency stops as well as a stop button. The E-Stop button requires a ¼ turn to release.

Note: Moving the control box to the opposite side of the machine requires disconnecting and reconnecting electrical wires and components. Only trained and qualified service technicians should access an open control box. Follow all possible safety procedures prior to and during this process.



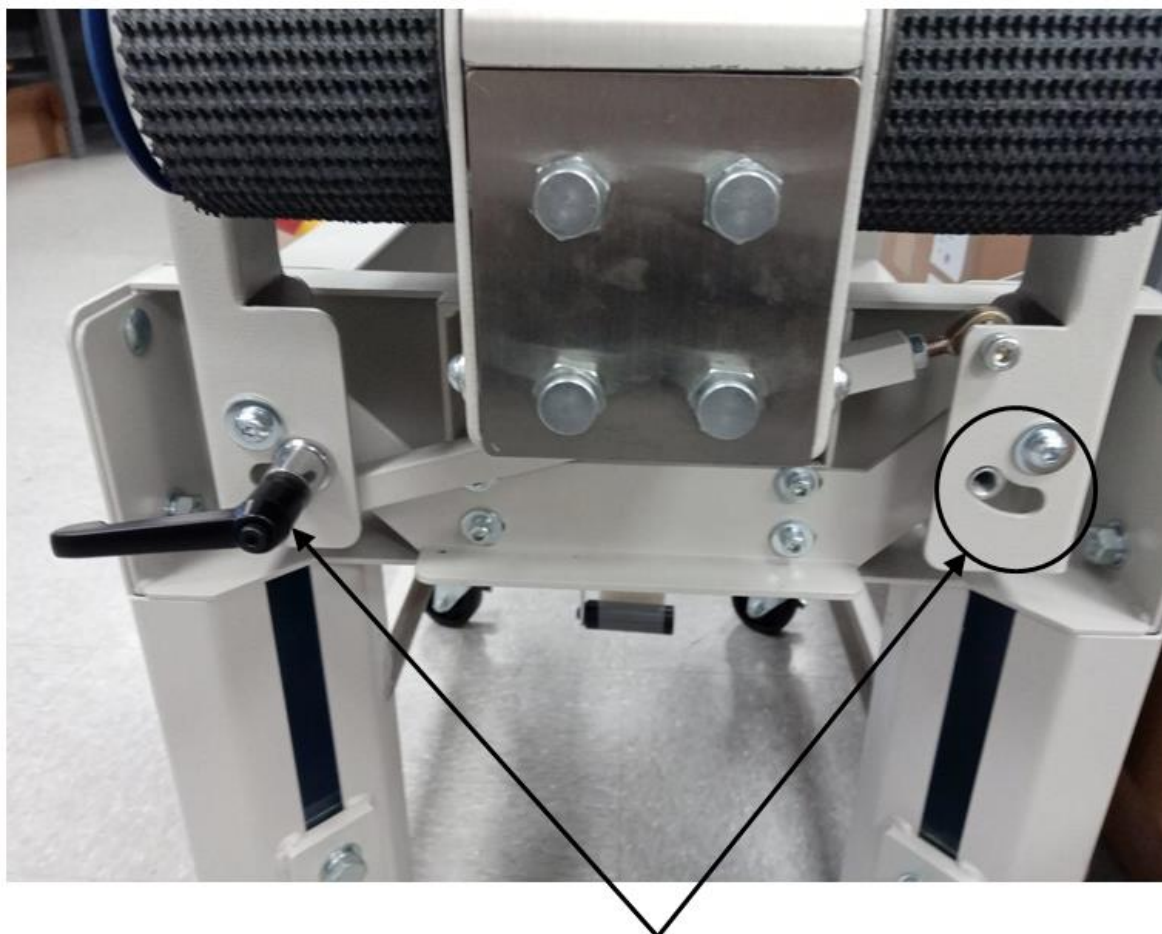
Motor Starter Contact

Motor Overload

Figure 4-7 Electrical Utilities

4.8 RELOCATION OF OPERATOR CONTROLS

This case sealer is shipped with the operator controls mounted on the left hand side of the machine (when viewed from the in feed of the machine). Certain machines have the ability to relocate the operator controls to the opposite side (refer to Figure 4-8).



Adjustment Handle can be
Unscrewed and Moved to the
Opposite Side

Figure 4-8 Re-Locating Adjustment Handle

4.9 REMOVING TAPE HEADS PRIOR TO TAPE LOADING

4.9.1 Removing Upper Tape Head

1. Slide tape head lock upwards to unlock the tape head (refer to Figure 4-10).
2. Slide tape head toward the inlet end of machine and lift out of rear slot.

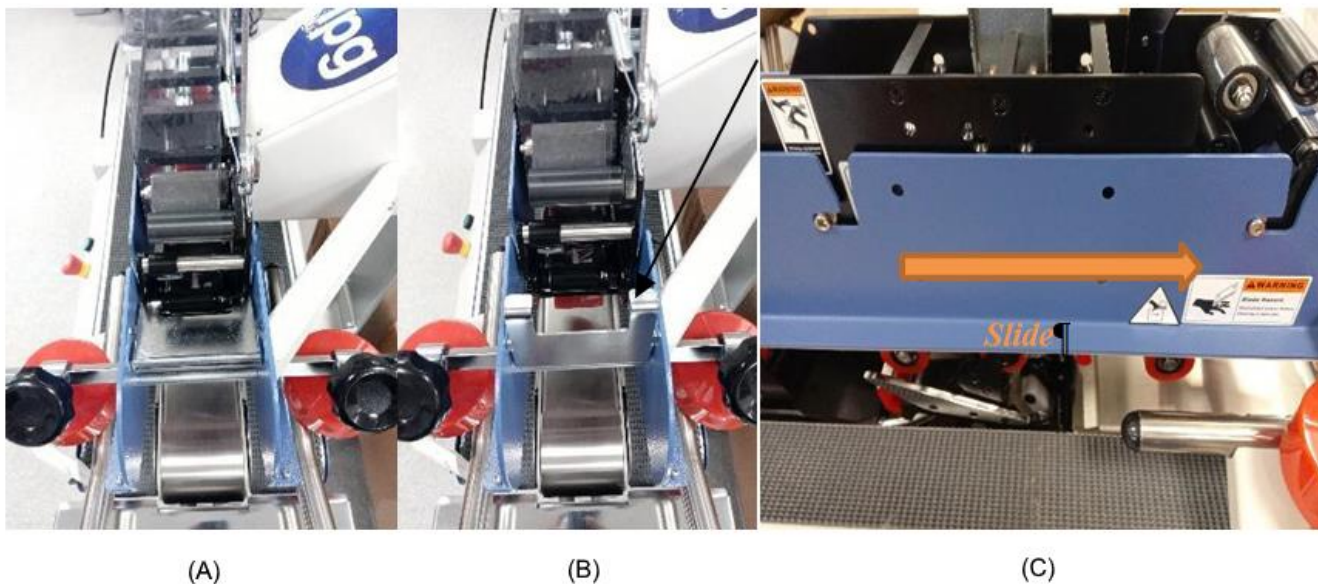


Figure 4-9 Removing Upper Tape Head

4.9.2 Removing Lower Tape Head

1. Lift the upper tape head bridge by turning the height adjustment handle clockwise.
2. Gripping the stationary cross shafts, lift the tape head straight up and out of the rear slots.
3. Slide the tape head toward the front end of machine, then lift the tape head straight up and out of the slot.

4.10 TAPE LOADING

The HSD® 2000 ET II Tape Heads accommodate 2 in. (50.8mm) wide tape rolls (refer to Figure 4-12).

1. Place the tape head onto a sturdy, flat surface.
2. Move the peel off roller away from the mandrel.
3. Push the roll of tape onto the mandrel with the adhesive side up (refer to Tape Threading [page 4-12](#)) until the core seats against the mandrel flange. This ensures the tape will be aligned when feeding into the tape head.
4. Replace the peel roller against the tape roll.

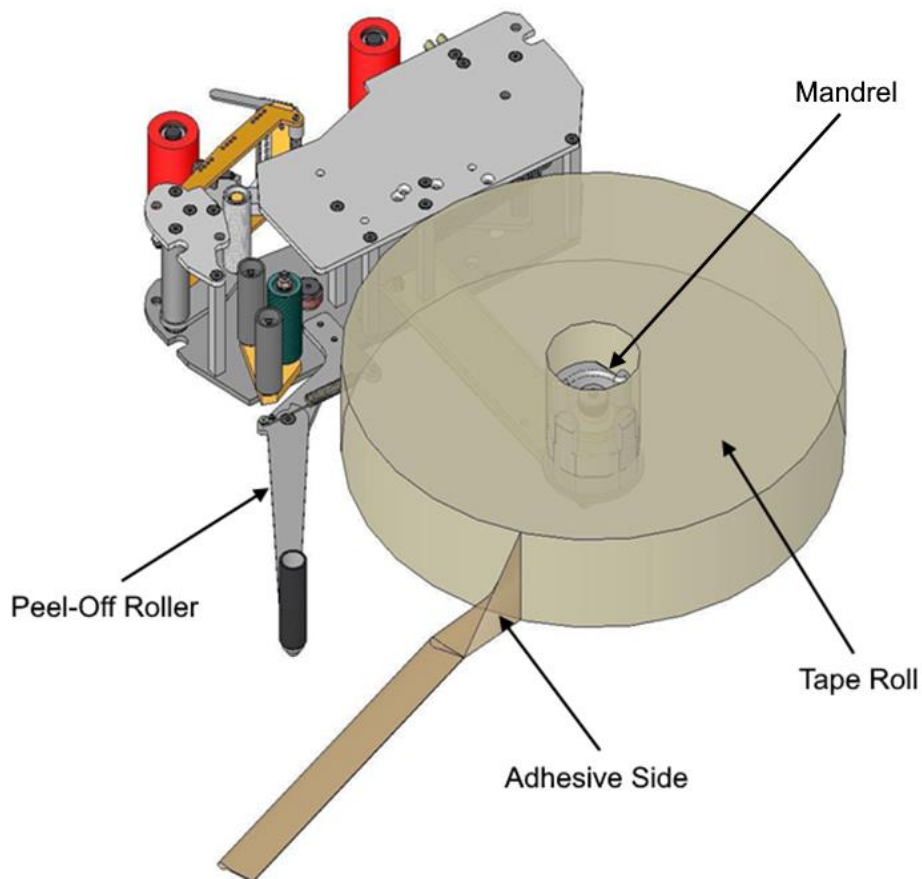


Figure 4-10 Tape Loading

4.11 TAPE THREADING PREPARATION



WARNING: THE KNIFE CONTAINED IN THE TAPE HEAD IS EXTREMELY SHARP. USE CAUTION WHEN THREADING THE TAPE TO AVOID PERSONAL INJURY.

Threading the tape in the Tape Head does not require any special tools (refer to Figure 4-13).

Pull approximately 12 in. (304.8mm) of tape from the roll and fold in half lengthwise, adhesive side to adhesive side. This allows you to thread the tape without it adhering to the guide and clutch rollers inside the Tape Head.

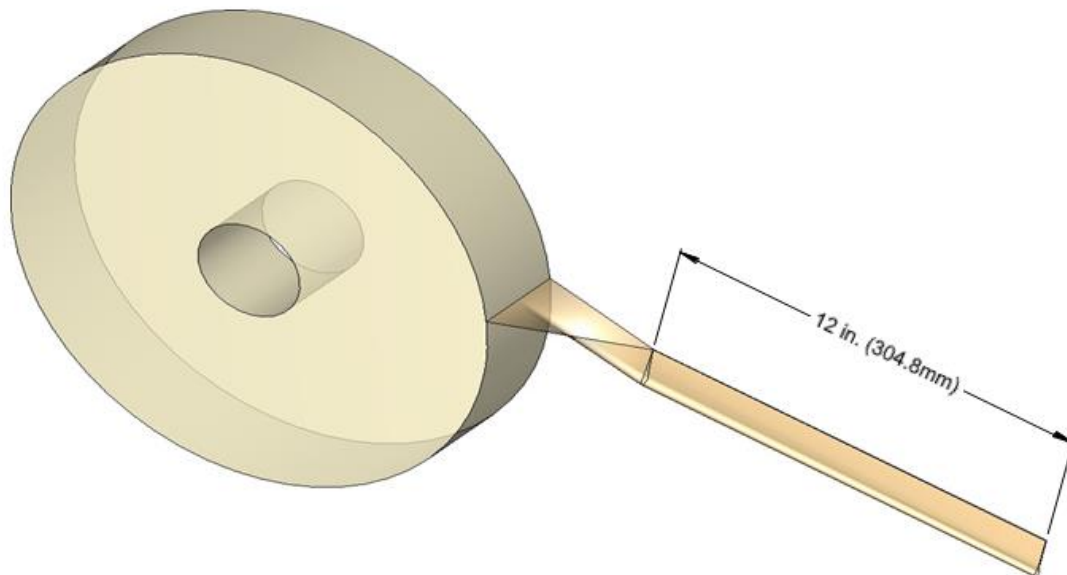


Figure 4-11 Tape Threading Preparation

4.12 TAPE THREADING

1. Thread the Tape Tail over the Peel Off Roller (refer to Figure 4-14).
2. Thread the Tape over and around the first "smooth" Guide Roller.
3. Continue to thread the tape over and around the "knurled" Clutch Roller.
4. Pass the tape up and over the second "smooth" Guide Roller.
5. Continue threading the tape over and behind the final Knurled Guide Roller.
6. Thread the tape through the cut-out provided in the Tape Guide Shoe and pull the tape through the front Application Roller, make sure that the tape is retained in the Tape Guide Shoe.
7. Cut off the folded tape.
8. Replace the Tape Head to its initial position in the machine.

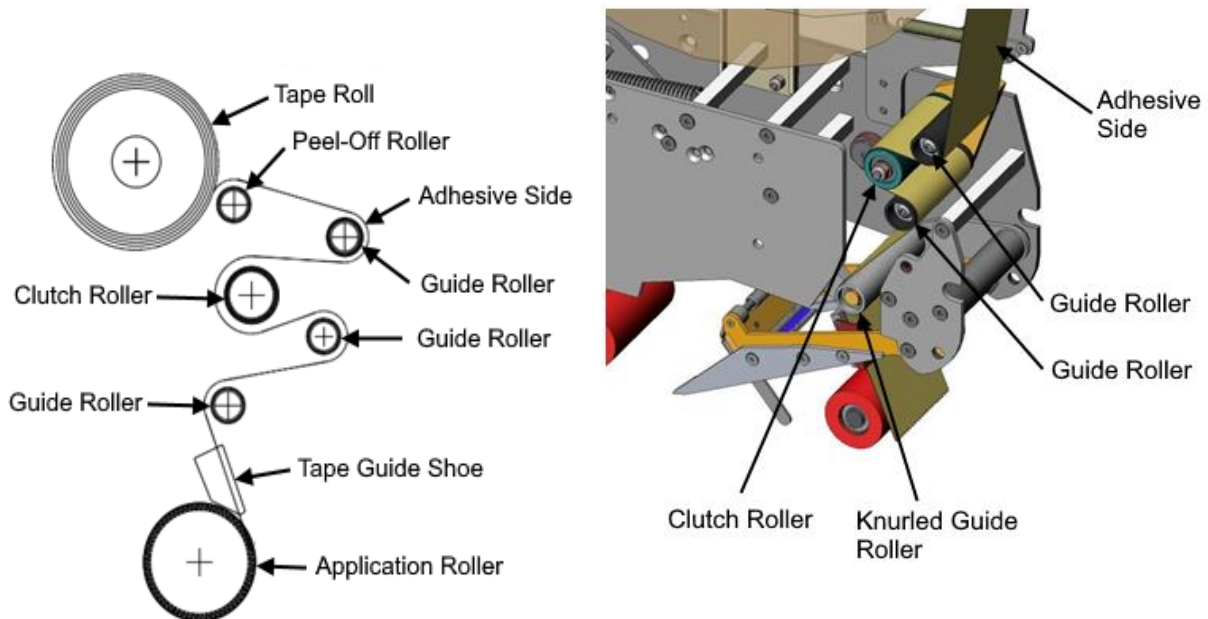


Figure 4-12 Tape Threading

4.13 REINSTALLING TAPE HEADS

1. Insert exit end of Tape Head into rear slots (refer to Figure 4-15).
2. Rotate front of Tape Head down into front slots.
3. Push front of Tape Head down to seat in bottom of slot.
4. Slide tape head back and lower lock.

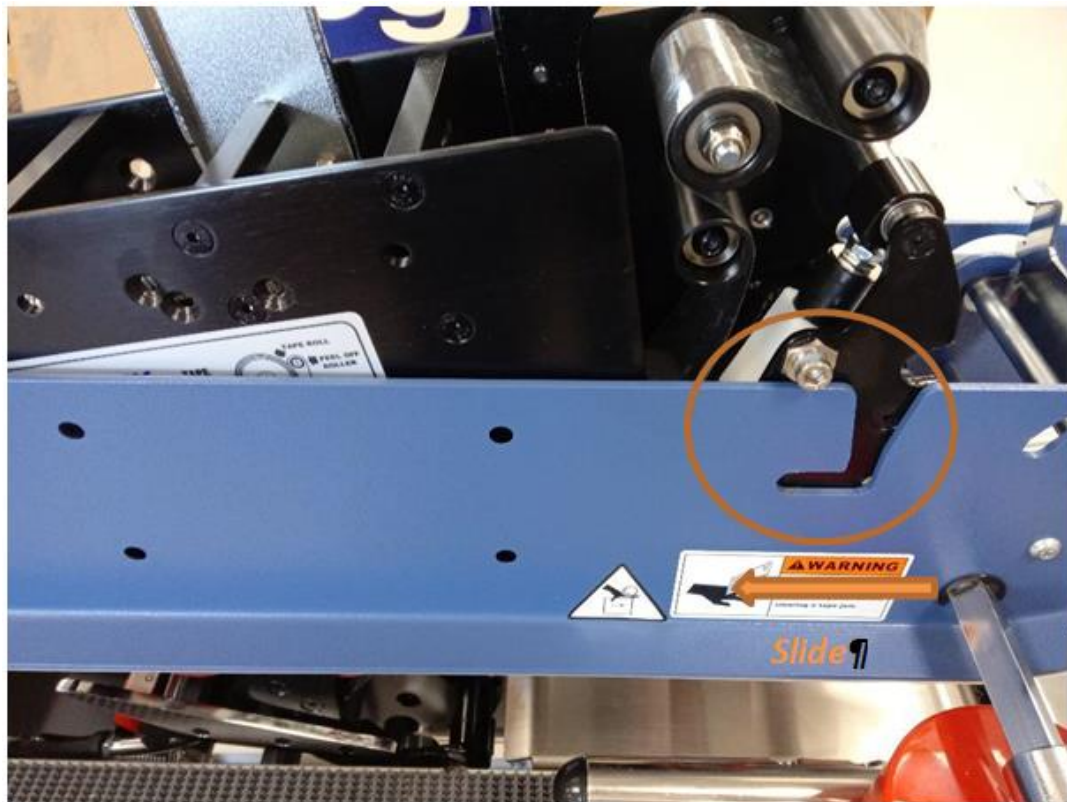


Figure 4-13 Reinstalling Tape Heads

Notes

Chapter 5

OPERATING INSTRUCTIONS

5.1 INITIAL CONDITION

1. Raise the Upper Tape Head (refer to Figure 5-1A).
2. Open Side Drives or Centering Guides (refer to Figure 5-1B).
3. Loosen each Locking Knob and open Top Squeezers (refer to Figure 5-1C).

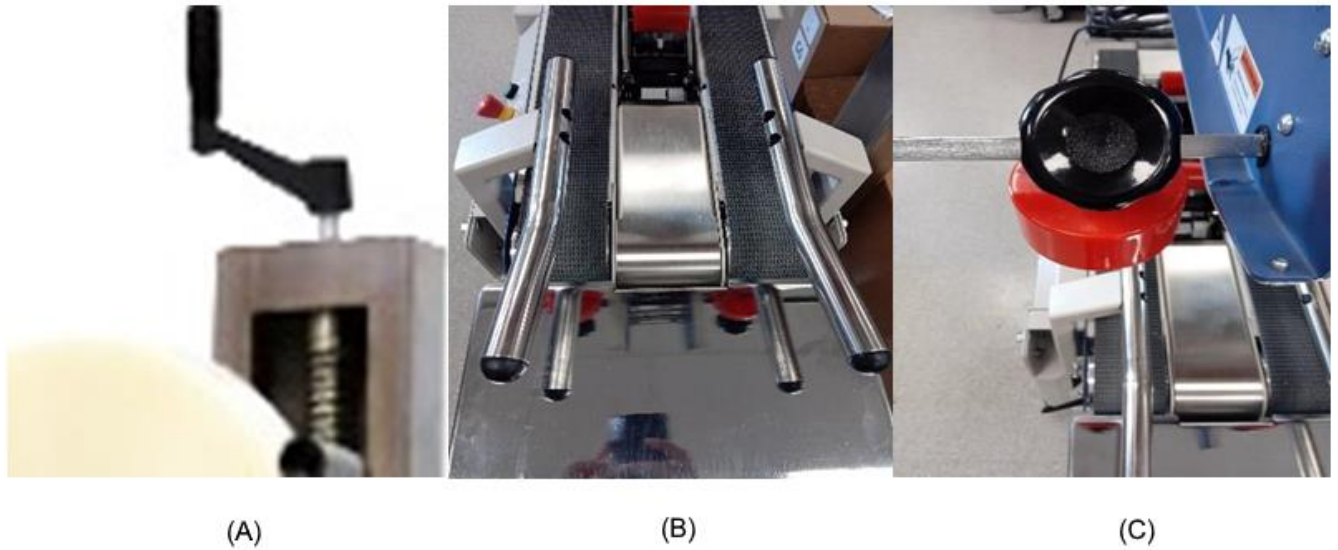


Figure 5-1 Initial Condition

5.2 PREPARING CASE TO BE PROCESSED

5.2.1 Flap Folding

1. Fold minor flaps inward (refer to Figure 5-2).
2. Fold major flaps inward (refer to Figure 5-3).

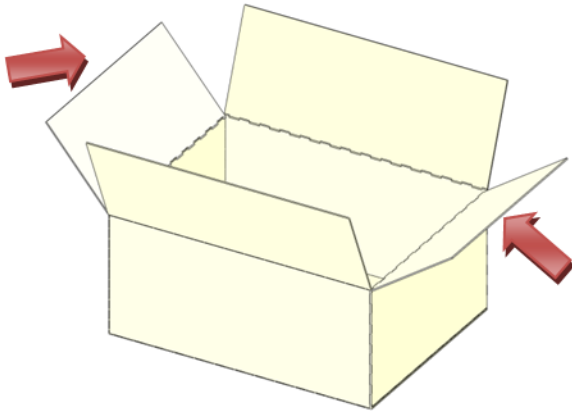


Figure 5-2 Fold Minor Flaps

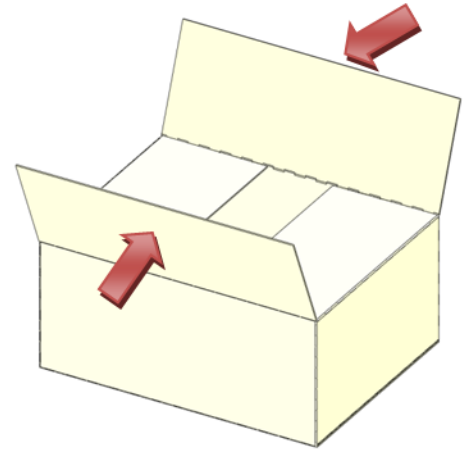


Figure 5-3 Fold Major Flaps

5.2.2 Overfills and Void Fills

Overfills and Void Fills, (refer to Figures 5-4 and 5-5), should be avoided to assure proper processing of the corrugated case. Each of these scenarios put stress on the water activated tape seal which could be detrimental to the integrity of the closure.

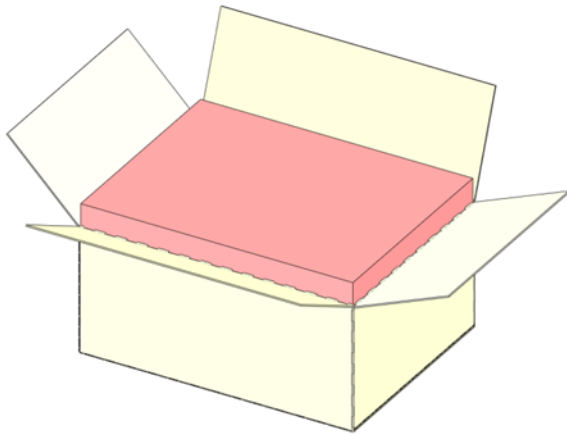


Figure 5-4 Overfill

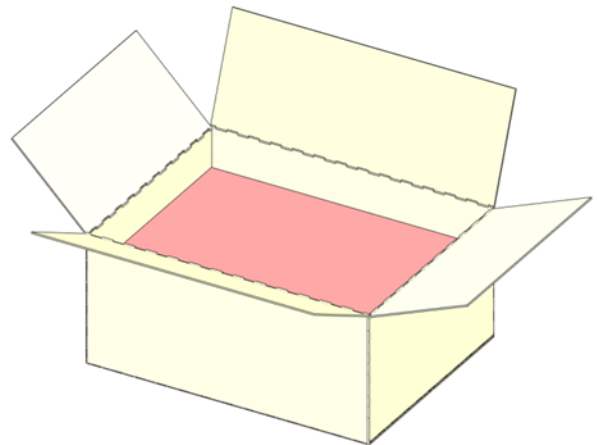


Figure 5-5 Void Fill

5.3 CASE ADJUSTMENT

5.3.1 Height Adjustment

1. Insert the case to just before front roller of Lower Tape Head (refer to Figure 5-6).
2. Turn Case Height Handle clockwise until Upper Head contacts top of case. Upper Tape Head should contact case firmly enough to keep major flaps closed but not restrict processing of case or score the top of case.



Figure 5-6 Case Height Adjustment

5.3.2 Width Adjustment

Turn Case Width Handle and adjust side guides until they contact case. Side guides should contact the case firmly enough so case processes smoothly but not so firm as to score the side of the case. Finish by tightening handle. (refer to Figure 5-7).



Figure 5-7 Case Width Adjustment

5.3.3 Top Squeezer Adjustment

Slide each Top Squeezer to contact the case firmly and tighten each Locking Knob. Each Top Squeezer should be firm enough on the case to completely close any gap on the center seam but not so firm as to restrict the smooth processing of the case (refer to Figure 5-8).



Figure 5-8 Top Squeezer Adjustment

5.4 POWER ON

1. Rotate the E-Stop button clockwise 1/4 turn to reset the knob (refer to Figure 5-9).
2. Push the green START button to start the machine and process the case.



Figure 5-9 Power ON

5.5 REVIEW OF CASE PROCESSING

1. Case should process smoothly through the machine and apply the tape evenly to each top and bottom major flap with a 2 ¼ in. tape leg applied to each end panel.
2. Should the case processing need correction please refer to the [Troubleshooting](#) section in this manual.

Notes

Chapter 6

TROUBLESHOOTING

The USC 2024-BB 3" Uniform Semi-Automatic Case Sealer is fabricated with high quality components that provide trouble-free operation for a long period of time. However, should a problem occur, we recommend that you consult the following table. If the problem you encounter is not discussed in this table, call Interpack [Technical Support](#).

Trouble	Possible Causes	Solutions
Green start button pressed but belts do not turn.	E-stops not reset. Machine not plugged in.	Rotate both E-stops ¼-turn clockwise (page 5-5). Plug machine into 115V, 60HZ, 15A electrical service.
Motors turn but belts do not turn.	Belt tension too low.	Adjust tension on drive belts.
Drive belts do not process cases.	Belt tension too low. Case Width Adjustment is incorrect. Case Height Adjustment is incorrect. Collapsed leading end panel on case. Case size is out of specification. Top Squeezers set incorrectly.	Adjust tension on drive belts. Re-adjust Case Width (page 5-4). Re-adjust Case Height (page 5-3). -Install lighter gauge tape head main spring. -Reduce unwind tension on tape roll. a. Mandrel tension. b. Clutch roller tension. Compare case sizes with machine specifications (page 3-3). Re-adjust Top Squeezers (page 5-4).
Case processes but top of case is crushed.	Case Height Adjustment is incorrect.	Re-adjust Case Height (page 5-3).
Case processes but side of case is crushed.	Case Width Adjustment is incorrect.	Re-adjust Case Width (page 5-4).
Case processes but leading end panel is crushed.	Product does not support the end panel of the case. Main spring tension on Tape Head too strong.	Insert proper dunnage material to provide support. Reduce main spring tension, See Tape Head Manual.

Trouble	Possible Causes	Solutions
Drive belts start, then stop.	Motor starter trips.	Call maintenance.
Void Fill cases do not process properly.	Upper Tape Head wipe down rollers collapse inside case.	-Install lighter gauge Tape Head main spring. -Reduce unwind tension on tape roll. a. Mandrel tension. b. Clutch roller tension.
Overfilled cases do not process properly.	Product height exceeds case height. Excessive Void Fill dunnage. Top Tape Head box is not adjusted properly.	-Reduce product in case to match case height. -Increase case height to match product height. Reduce Void Fill dunnage to match case height. Readjust Top Tape Head box to proper case height.
Unstable cases do not process properly.	Case height exceeds 1 ½ times the case length.	-Re-configure case dimensions so that case is not unstable. -Process case on top and bottom belt drive machine.
Tape not centered on case.	Tape roll mandrel not centered on case. Tape roll not fully pushed on tape mandrel.	Center tape roll mandrel, See Tape Head Manual. Push tape roll completely onto tape mandrel.
Tape leg is too short/too long.	Tape leg adjustment not correct. Tape Head is not threaded correctly. Tape roll unwind tension is too strong or too weak.	Adjust tape leg, See Tape Head Manual. Thread Tape Head correctly (page 4-12). Adjust unwind tension, See Tape Head Manual.
Rear tape leg is folded or wrinkled.	Tape threaded incorrectly. Adhesive build up in tape path. Dull blade. Excessive unwind tension from tape roll.	Review tape threading (page 4-12). Clean tape guide rollers to provide a free rotation. Clean tape path, blade. Replace blade. Adjust mandrel tension and clutch roller tension, See Tape Head Manual.
Tape does not cut.	Blade dull. Insufficient tension at the clutch roller.	Replace blade. Increase clutch roller tension slightly, See Tape Head Manual.

Trouble	Possible Causes	Solutions
Upper Head adjustment handle is hard to turn.	Dust and dirt on Acme Screw. Upper Head misaligned.	Clean Acme Screws, lubricate with light machine grease. Re-align Upper Head.

Notes

Chapter 7 **PREVENTIVE MAINTENANCE**

7.1 MACHINE PREVENTIVE MAINTENANCE

The USC 2024-BB 3" Uniform Semi-Automatic Case Sealer has been designed and manufactured with the finest components to provide long, trouble free performance. General preventive maintenance will improve performance and prolong the life of the case sealer.

Please review the illustrations and charts below for information regarding machine and Tape Head maintenance.

Item	Action Required	Material	Frequency		
			Weekly	Monthly	Quarterly
Case Dust In/On Machine	Blow Off Machine Externally and Internally	Air hose	X		
	Pay Attention To Drive Base Centering Chain				
Case Dust Inside Drive Bases	Remove Drive Base Cover	Screw Driver	X		
	Blow Out Case Dust	Air Hose			
	Replace Cover	Screw Driver			
Hardware	Re-Tighten any Loose Hardware			X	
	Replace any Missing Hardware				
Column Screw	Lubricate	Light Machine Grease		X	

Table 7-1 Machine Preventative Maintenance Chart

Item	Action Required	Material	Frequency		
			Weekly	Monthly	Quarterly
Blade Guard Oiler Pad	Lubricate	Lightweight oil	X		
Hardware	Re-tighten any loose hardware				X
	Replace any missing hardware				X
Cutter Blade	Inspect for wear		X		
	Clean	Solvent Cleaner	X		
Mandrel Assembly	Disassemble & Observe				X
Mandrel Spring	Check for weakness	None			X
Mandrel Friction Washer	Clean	Solvent Cleaner			X
Mandrel Metal Washer	None	None			X
Mandrel Shaft	Remove any dust and adhesive build up	Solvent Cleaner			X
Mandrel Bearing	Check for wear	None			X
Peel Roller					X
Delrin Roller	Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner			X
Pivot Shaft	Check for any restriction	Solvent Cleaner			X
Peel Roller Spring	Check for weakness				X
Plastic Guide Rollers	Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner		X	
Knurled Teflon Coated One Direction Clutch Roller	Back off tension. Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner		X	
Knurled Teflon Coated Guide Roller	Rotation should be slightly restricted by Belville washer. Disassemble and remove any adhesive build up if excessive restriction is detected	Solvent Cleaner		X	
Front Red Wipe Down Roller	Rotation should be slightly restricted by Belville washer. Disassemble and remove any adhesive build up if excessive restriction is detected	Solvent Cleaner		X	
Rear Red Wipe Down Roller	Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner		X	
Main Spring	Remove and inspect for any wear or weakness. Replace as necessary.			X	
Knife Spring	Remove and inspect for any wear or weakness. Replace as necessary.			X	
Tape Shoe Guide Flat Spring	Inspect for any wear or weakness. Replace as necessary.			X	
Wipe Down Brush	Inspect for any wear or weakness. Replace as necessary.			X	
Main Applying And Wipe Down Assembly	Remove <i>Main Spring</i> and check for any restrictions when assembly is in motion	Worn bearings, bent shafts, bent roller arms			X
Knife Arm Assembly	Remove <i>Knife Spring</i> and check for any restrictions when assembly is in motion	Worn bearings, bent shafts, bent roller arms			X

Refer To Assembly Drawings For Part Numbers Of Replacement Parts If Required

Table 7-2 Tape Head Preventative Maintenance Chart

7.2 CLEANING THE MACHINE

⚠ WARNING: EXERCISE ALL SAFETY PRECAUTIONS PRIOR TO STARTING THIS PROCEDURE. DISCONNECT ELECTRICAL POWER AND WEAR APPROVED SAFETY GLASSES.

7.2.1 Belt Drive Pulley Shaft

Insert an air nozzle along the top edge of the belt into the opening of the drive base and clean out any dust and dirt (refer to Figure 7-1).

7.2.2 Column Screw

With a cloth, wipe down any accumulation of dust and dirt.

7.2.3 Width Adjustment Screw

Blow off any accumulation of dust and dirt from the adjustment screw.

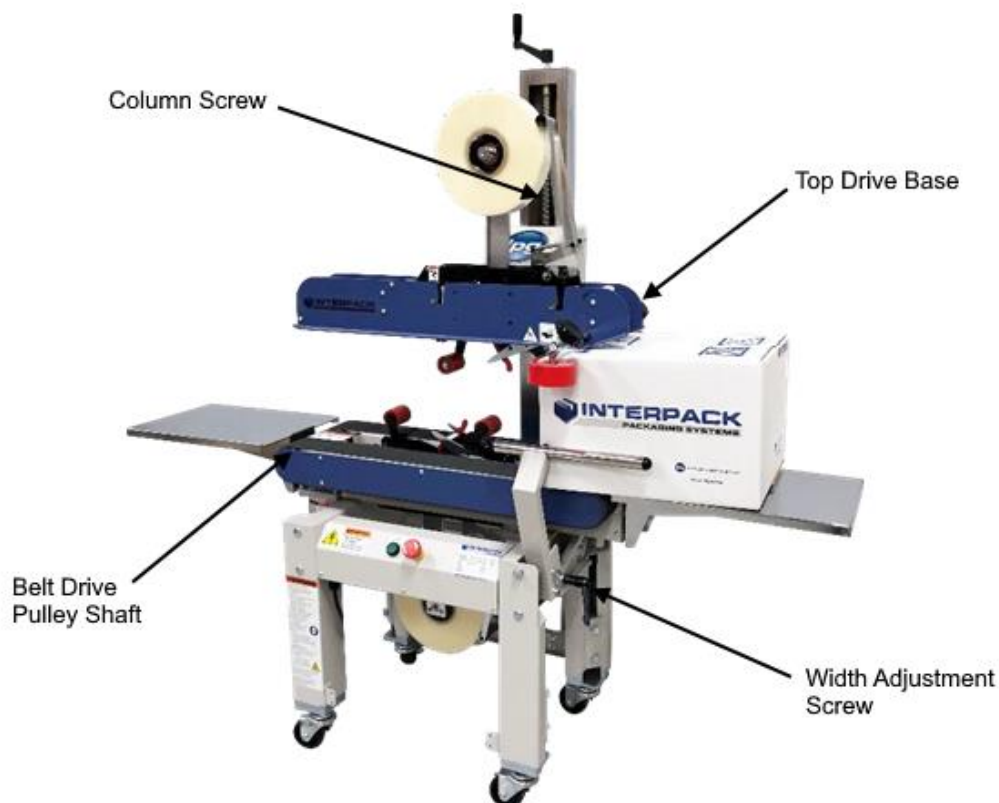


Figure 7-1 Cleaning the Machine

7.3 LUBRICATING THE MACHINE

7.3.1 Column Screw

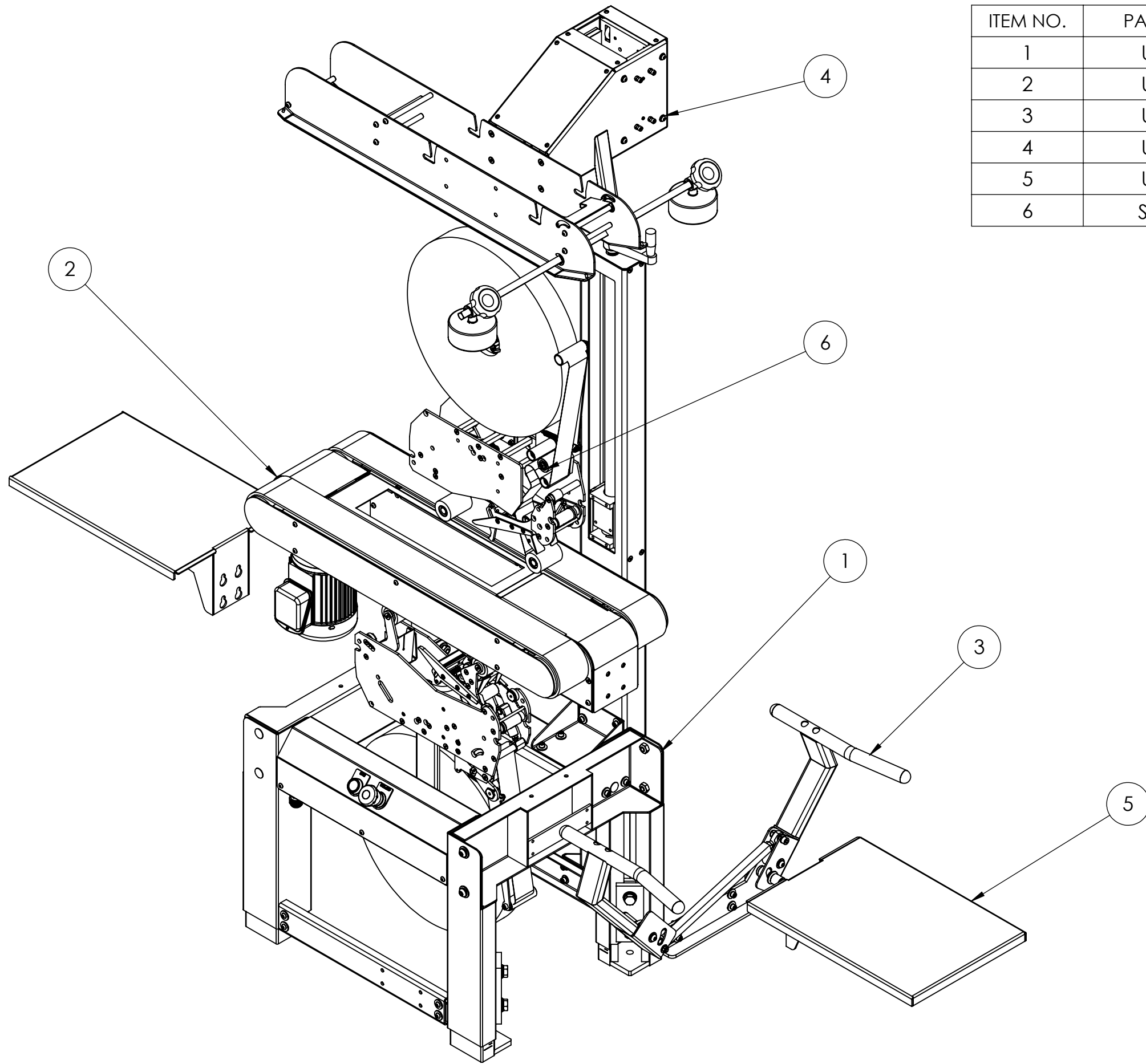
Lubricate screw with light machine grease (refer to Figure 7-2).



Figure 7-2 Lubricating the Machine

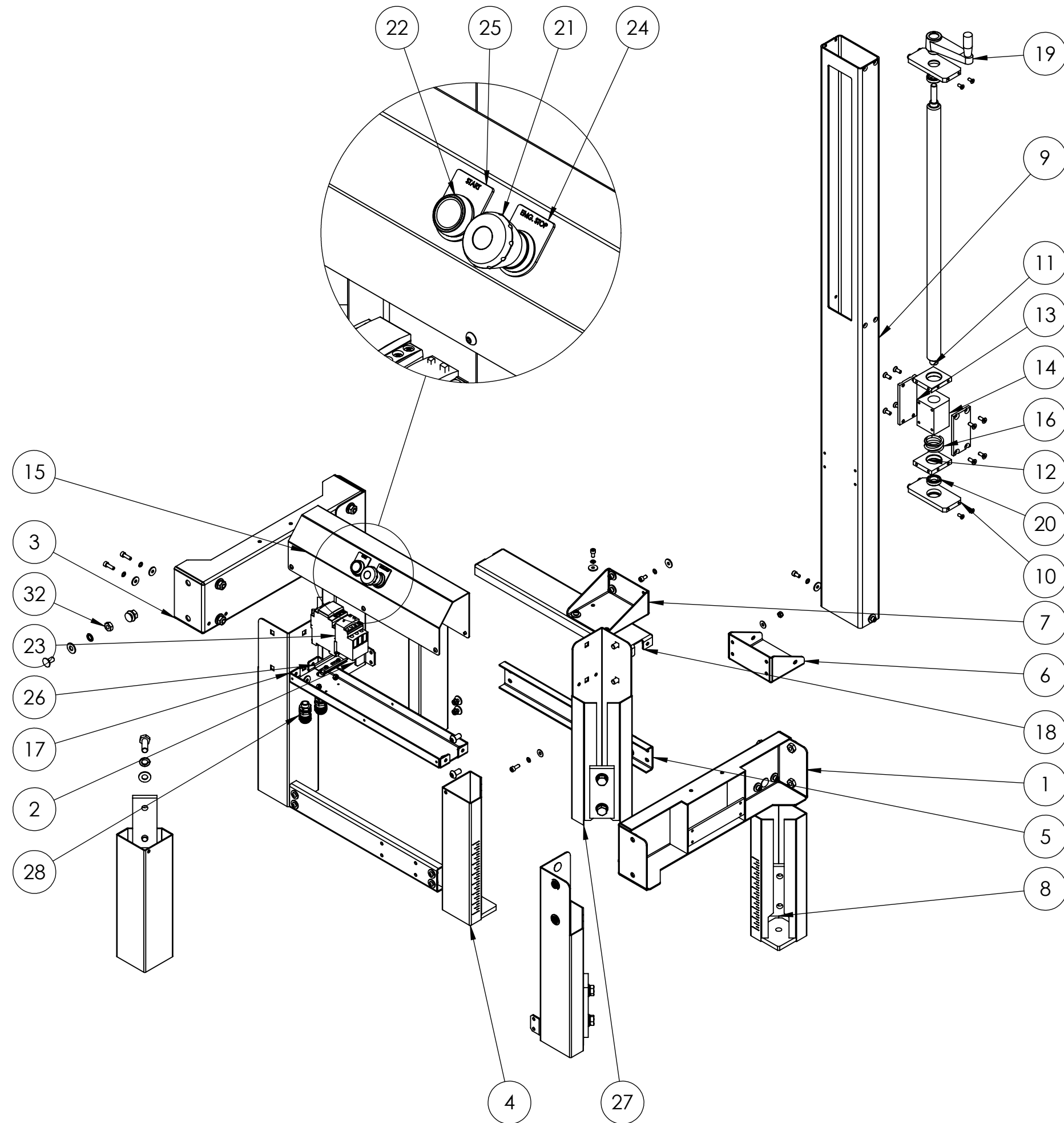
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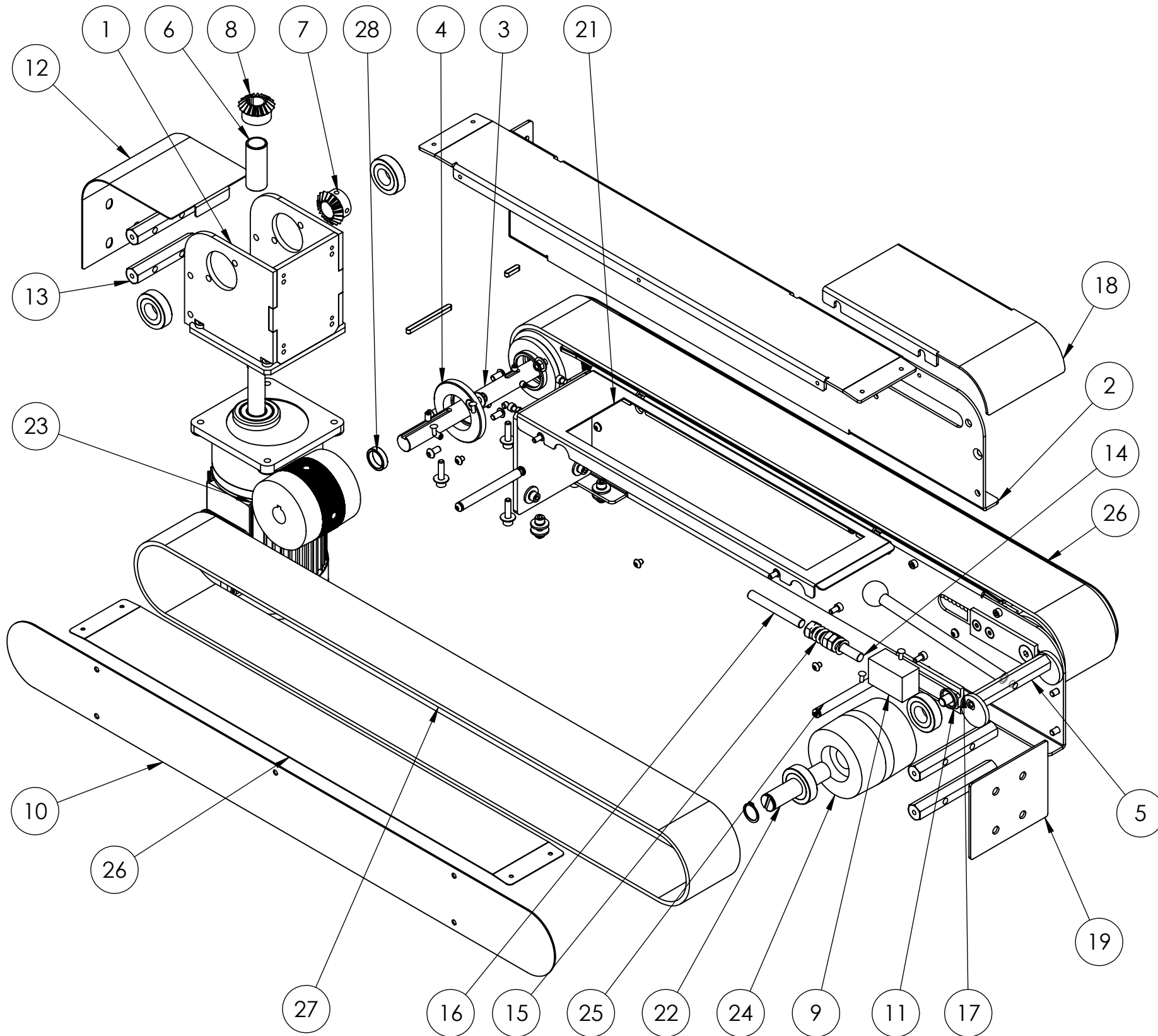
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	USM0858	BASE FRAME	1
2	USM0859	DRIVE BASE ASSEMBLY	1
3	USM0860	GUIDE ARMS ASSEMBLY	1
4	USM0852	COMPRESSION GUIDE ASSEMBLY	1
5	USM0853	FEED TABLE	1
6	SEE TABLE	HSD2000 ET-2.75/2"	2

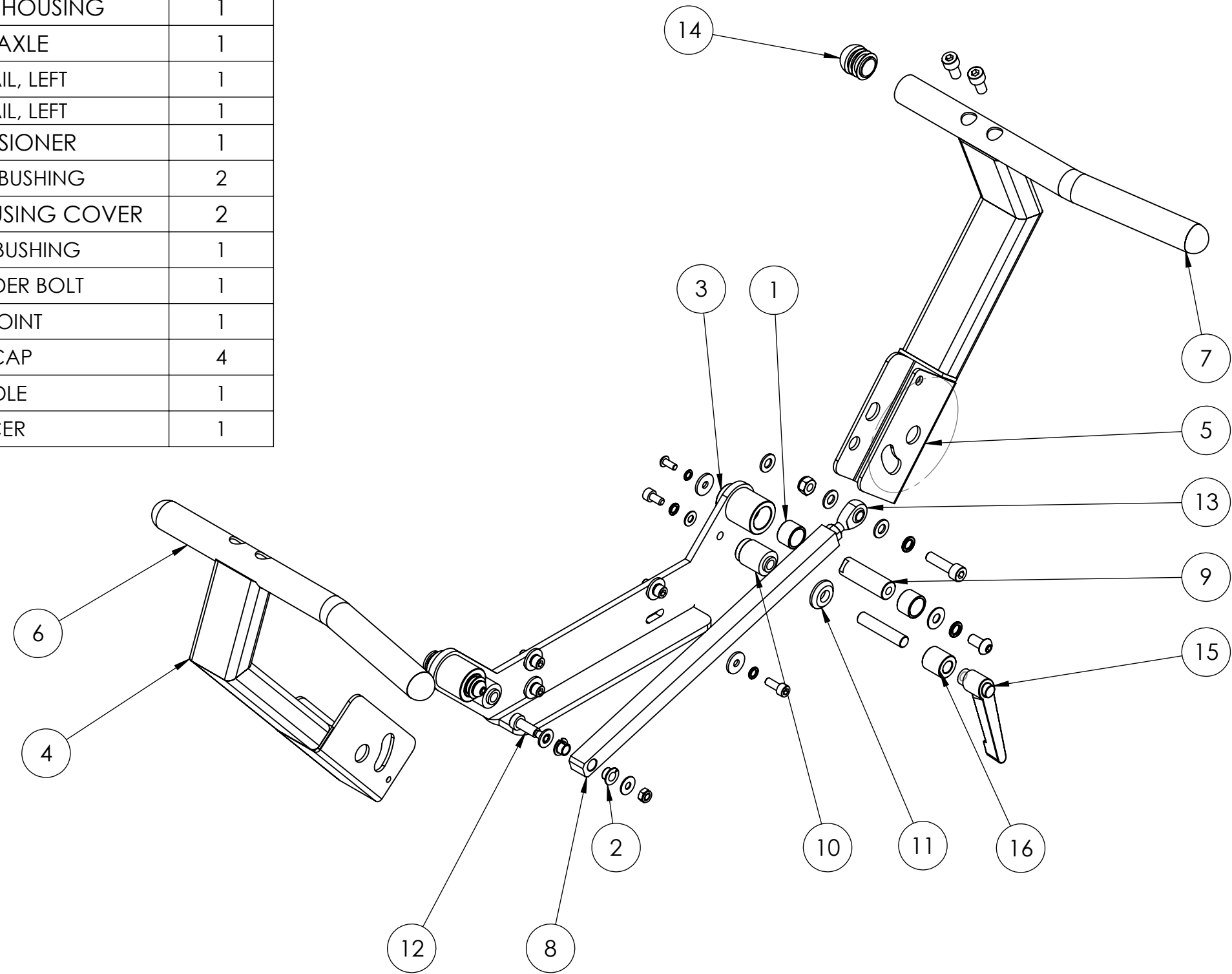
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM5871	UPPER, RIGHT CROSSBRACE WELDMENT	1
2	UPM5720	LEG WELDMENT, MIRROR OF M1692	2
3	UPM5872	UPPER, LEFT CROSSBRACE WELDMENT	1
4	UPM0847	LEG ADJUSTMENT WELDMENT FOR USA2024 REDESIGN	4
5	UPM5723	LOWER, LEG BRACE	2
6	UPM5732	COLUMN SUPPORT	1
7	UPM5724	GUSSET	1
8	UPM0931	LEG FRICTION PLATE	4
9	UPM5743	COLUMN	1
10	UPM5744	THREADED ALIGNMENT PLATE	2
11	UPM5726	HEIGHT ADJUSTMENT ROD	1
12	UPM5728	CONTAINMENT PLATE	2
13	UPM5729	GUIDE PLATE	2
14	UPM5727	THREADED BLOCK	1
15	UPM5740	START/E-STOP FRONT PANEL	1
16	UPM5741	SPRING	1
17	UPM5739	START/E-STOP BACK PANEL	1
18	UPM5742	UPPER, REAR BRACE	1
19	UPM5730	HANDLE	1
20	UPM5725	BEARING, 6903ZZ	2
21	UPM5733	E-STOP	1
22	UPM5734	START SWITCH	1
23	UPM5738	OVERLOAD RELAY	1
24	UPM5735	E-STOP TAG	1
25	UPM5736	START SWITCH TAG	1
26	UPM5737	80/20	1
27	UPM5719	LEG WELDMENT	2
28	UPM5873	CABLE GLANDS	2





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM5874	REAR AXIAL HOUSING	1
2	UPM5746	LOWER CENTER SUPPORT	1
3	UPM5875	DRIVE AXLE	1
4	UPM5749	LOCKING RING	2
5	UPM5876	CAM TENSIONER	1
6	UPM5751	18MM ID X 54.5MM LG SPACER	1
7	UPM5752	BEVEL GEAR	1
8	UPM5752	BEVEL GEAR	1
9	UPM1234	TENSIONER BACKING PLATE	2
10	UPM5755	SIDE COVER	2
11	UPM5756	SPACER	2
12	UPM5877	REAR AXLE HOUSING COVER	1
13	UPM5878	REAR COVER SCREW PLATE	2
14	UPM5759	DOWEL Ø9.5MM X 38MM LG	2
15	UPM5760	TENSIONER SPRING	2
16	UPM5761	TENSIONER ROD	2
17	UPM5762	TENSIONER ALIGNMENT PLATE	2
18	UPM5879	FRONT COVER	1
19	UPM5880	TENSIONER COVER PLATE	1
20	UPM5881	REAR COVER PLATE	1
21	UPM5882	GAP FILLER PLATE	1
22	UPM0393	IDLER PULLEY SHAFT 4" BBD	2
23	UPM4069	DRIVE PULLEY	2
24	UPM4070	IDLER PULLEY	2
25	UPM5766	STANDOFF	4
26	UPM5768	BELT GUIDE	2
27	UPM5769	BELT	2
28	Q1-25-19.5-06.5	SPACER	2

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM5779	BUSHING	4
2	UPM5780	BUSHING	2
3	UPM5873	FRAME	1
4	UPM5874	REAR AXIAL HOUSING	1
5	UPM5875	DRIVE AXLE	1
6	UPM5784	GUIDE RAIL, LEFT	1
7	UPM5784	GUIDE RAIL, LEFT	1
8	UPM5876	CAM TENSIONER	1
9	UPM5787	THREADED BUSHING	2
10	UPM5877	REAR AXLE HOUSING COVER	2
11	UPM5789	LOCKING BUSHING	1
12	UPM5790	M6 SHOULDER BOLT	1
13	UPM5791	HEIM JOINT	1
14	UPM5792	END CAP	4
15	UPM5795	HANDLE	1
16	Q1-20-10.5-20	SPACER	1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM5799	ROLLER PLATE	2
2	UPM5800	ROLLER AXLE	4
3	UPM5801	ROLLER WHEEL	8
4	UPM5803	HOUSING PLATE, RIGHT	1
5	UPM5802	UPPER REAR SLIDE PLATE	1
6	UPM5821	UPPER FRONT SLIDE PLATE	1
7	UPM5804	SUPPORT ARM	1
8	UPM5805A	Ø3/8 STANDOFF	2
9	UPM5805C	Ø3/8 STANDOFF	6
10	UPM5878	TAPE HEAD LOCKING PLATE	1
11	UPM5807	SLIDE RAIL	2
12	UPM5879	GUIDE RAIL	1
13	UPM5809	SNAP RING Ø12	2
14	UPM5810	GUIDE COLLAR	2
15	UPM5814	GUIDE ROLLER	2
16	UPM5815	LOCKING KNOB	2
17	UPM5816	SNAP RING Ø15	4
18	UPM5817	GUIDE PLATE	2
19	UPM5811	ROLL PIN	4
20	UPM5813	HOUSING PLATE, LEFT	1
21	UPM5812	HOUSING BACK PLATE	1
22	UPM5819	HOUSING PLATE, FRONT	1

