



USER MANUAL

RSA 20-B



For Serial Numbers:
TM123 and TM623 XX X XXX



USER NOTES

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TECHNICAL ASSISTANCE

This is the Interpack Model **Random Semi-Automatic (RSA 20-B)** Side-Belt Case Sealer you ordered. It has been set up and tested in our factory with Intertape manufactured water activated 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, **IPG Machinery Support** is available. Should the need to contact **IPG Machinery Support** arise, **please have the equipment model and serial number available prior to contact**. This information can be found on the nameplate of the tape head as well as on the machine, both sets of information may be necessary to assist. A section at the bottom of this page is available to write this information down. **IPG Machinery Support** is available during normal business hours (M-F 8am-5pm) Eastern Time.

Phone: 877-447-4832 Option 4 for Machinery

Email: machsupp@itape.com

Replacement Parts

A breakdown of parts, including part numbers, can be found in the appendix of this manual. If you know the part number that you require please contact your authorized distributor or IPG Customer Service 877-447-4832 Option 3

Please use this area to enter the detailed information on your Case Sealer and Tape Heads. This should be filled out at the time of install. This information can be found on the nameplate of the machine, typically on the side the electrical box is on. On pressure sensitive tape the nameplate is located on the same side the tape is loaded from. On the WAT Tape Heads serial information can be found near the air intake of the head.

Machine

Model

Serial

Distributor

Name

Phone/Email

Tape Head Top

Model

Serial

Tape Head Bottom (if applicable)

Model

Serial

Date of Purchase

Date of Install

FIELD SERVICE ASSISTANCE

Your Interpack Case Sealer and Tape Heads are designed to provide years of trouble free operation. This is not without proper preventative maintenance, a recommended schedule can be located in the maintenance section of this manual, performed by then end user of the equipment. 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 in conjunction with phone and/or email support from IPG Machinery Support.

Field Service Support is available from your IPG Authorized Distributor at additional cost if the problem cannot be remedied after consulting the troubleshooting section of this manual.

IPG offers comprehensive programs that help keep your equipment up and running.

Proactive maintenance efforts help to prevent equipment failures and costly emergency repairs. Keeping your machine in optimal working condition also enhances employee safety, reduces facility downtime and efficiently allocates internal resources.

Please contact your IPG Representative to discuss the best options for your IPG equipment.

WARRANTY INFORMATION

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 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 Tape Head parts will be free from all defects for one (1) year after delivery.
3. Water Activated Tape Heads' 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

7. 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.
8. Failure due to inadequate cleaning, improper operating environment, improper utilities or operator error.
9. Failure due to operations above the rated capacities, or in any other improper manner, either intentional or otherwise.
10. Failure is due to equipment, which has been altered by anyone other than an authorized representative of Intertape Polymer Group.
11. 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.

GENERAL INFORMATION

Description of RSA 20-B

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.

The Interpack RSA 20-B Case Sealing Machine with HSD® 2000-ET II+ Tape Head is designed to apply Intertape brand pressure sensitive case sealing tape to the bottom center seam of regular slotted corrugated cases. The RSA 20-B is auto adjustable to a random variety of case sizes.



Figure 1: RSA 20-B

Definitions

Common terms that will be used throughout this manual.

Tape Head – This will refer to the HSD® 2000-ET II+ Tape Head for the remainder of this manual

Case Sealer – Refers to IPG manufactured Case Sealers

Machine System – Refers to the fully assembled Case Sealer with the Tape Head(s) installed

User/Operator – The individual who has been trained on the daily use of the Machine System

Maintenance Champion – The individual(s) who work for the end user of the Machine System who are responsible for conducting general and preventative maintenance

OPTIONAL EQUIPMENT

The RSA 20-B can be outfitted with a variety of optional equipment. The below list is **not** standard and should be discussed with your distributor or authorized IPG representative if you would like them to be added to your machine.



Figure 2: Optional Equipment

Additional Tape Heads

It is recommended to keep a spare tape head in the event any failure or malfunction causes the machine to stop production. This is to help reduce any possible downtime.

Description	Item Number
HSD® 2000-ET II+ 2"	UH275TW
HSD® 2000-ET II+ 3"	UH775TW
ET Extreme 2"	UH230TW
ET Extreme 3"	UH430TW

Can be installed on site

Description	Item Number	Quantity Per Machine
Feed Table 16" (.4M)	UM894T	1
Feed Table 24" (.6M)	UM998T	1
Feed Table 36" (.9M)	UM898T	1
Casters	UM841	1 set of 4 (36" Feed Table will require 2 additional casters)

Recommended to be installed at the factory

Description	Item Number	Quantity Per Machine
Secondary Emergency Stop	UM9003	1
4" Drive Bases	UAM1079 (right) and UAM10798 (left)	1
Reverse Electrical Box	UM085	1
Reverse Operator Control Pneumatic	UM087	1
Low Tape No Tape Box	UH1426	1

IMPORTANT SAFEGUARDS

There are a number of safety labels used on the RSA 20-B Case Sealer. These labels are placed at different locations on the machine to warn operators and service personnel of possible dangers. 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 factory installed covers and guards must be in place before operating.

Stay clear of moving parts which can shear and cut.

Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

SAFETY LABEL PLACEMENT

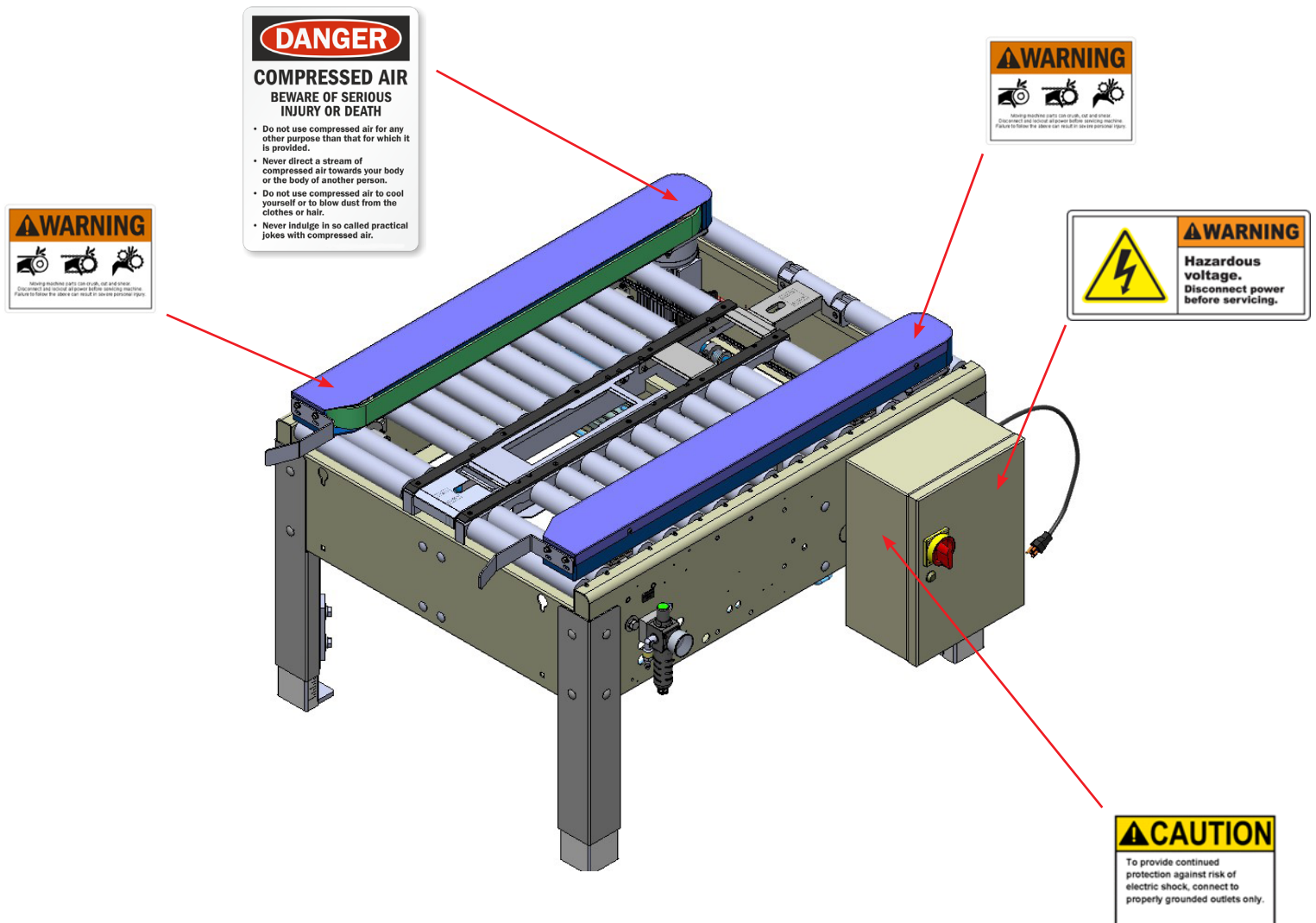


Figure 3: Safety Label Placement

SAFETY LABEL DESCRIPTIONS

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.



Figure 4: Blade Hazard

The label shown is affixed to the upper tape head assembly on either side 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.



Figure 5: Sharp Hazard

The label shown is located on the in-feed and exit ends of the machine belt drives.

The label warns the operators and service personnel of the pinch points at each end of the belt drives.



Figure 6: Drive Base Hazard

The label shown is affixed to the electrical control box.

The label advises service personnel to connect the machine to a properly grounded outlet.



Figure 7: Hazardous Voltage

The label shown is affixed to the electrical control box.

The label advises service personnel to connect the machine to a properly grounded outlet.

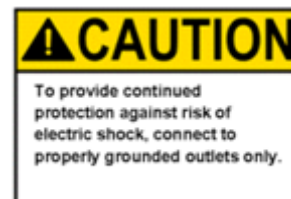


Figure 8: Ground Connection

SAFETY LABEL DESCRIPTIONS CONTINUED

The label shown is located 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.

UPM2012



Figure 9: Safety Instructions




The label shown is located on the in-feed end

of the machine. The label advises personnel about the dangers of the machine due to compressed air used in the system. Be aware of warnings and proper procedures when running and/or servicing the machine.



Figure 10: Compressed Air

SAFETY LABEL DESCRIPTIONS CONTINUED

<p>The label shown is located on the gear side of the machine.</p> <p>The label warns the operators and service personnel of the pinch points.</p>	 <p>Figure 11: Gear Pinch Point</p>
<p>The label shown is located on the chain side of the machine.</p> <p>The label warns the operators and service personnel of the pinch points.</p>	 <p>Figure 12: Chain Pinch Point</p>
<p>The label shown is located on the side of the outfeed table.</p> <p>The label warns the operators and service personnel to keep fingers clear of lower tape mandrel.</p>	 <p>Figure 13: Rotational Pinch Point</p>

Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

IMPORTANT SAFEGUARDS

Explanation of Signal Word Consequences



WARNING: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED COULD RESULT IN DEATH OR SERIOUS INJURY OR PROPERTY DAMAGE



CAUTION: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED COULD RESULT IN MINOR OR MODERATE INJURY OR PROPERTY DAMAGE



WARNING

- 1. To reduce the risk associated with mechanical, pneumatic, and electrical hazards:**
 - Read, understand, and follow all safety and operating instructions before operating or servicing the Case Sealer and/or Tape Head
 - Allow only properly trained and qualified personnel to operate and service this equipment
- 2. To reduce the risk associated with pinches, entanglement, and hazardous voltage:**
 - Turn electrical supply off and disconnect before performing any adjustments, maintenance, or servicing the Case Sealer or Tape Head
- 3. To reduce the risk associated with pinches and entanglement hazards:**
 - Do not leave the Case Sealer running while unattended
 - Turn the Case Sealer off when not in use
 - Never attempt to work on any part of the Case Sealer, Tape Head, load tape, or remove jammed boxes from the Case Sealer while the machine is running
- 4. To reduce the risk associated with hazardous voltage**
 - Position electrical cord away from foot traffic and vehicle traffic
 - Do not operate the Case Sealer with a damaged power cord
- 5. To reduce the risk associated with sharp blades hazards:**
 - Keep hand and fingers away from the tape cutoff blades, the blades are very sharp
- 6. To reduce the risk associated with fire and explosion hazards:**
 - Do not operate this equipment in potentially flammable and/or explosive environments
- 7. To reduce the risk associated with muscle strain:**
 - Use the appropriate rigging and material handling equipment when lifting or repositioning this equipment
 - Use proper body mechanics when removing or installing Tape Heads that are moderately heavy or may be considered awkward to lift
- 8. To reduce the risk associated with mechanical, pneumatic, and electrical hazards:**
 - Allow only properly trained and qualified personnel to operate and service this equipment



CAUTION

- 1. To reduce the risk associated with pinch hazards:**
 - Keep hands clear of the upper head support assembly as boxes are transported through the Case Sealer
 - Keep hands, hair, loose clothing, and jewelry away from box compression rollers, moving belts, and Tape Heads
 - Always feed boxes into the Case Sealer by pushing only from the end of the box



CAUTION: TO AVOID INJURY THE MACHINE OPERATOR SHOULD REMAIN ATTENTIVE AND SHOULD NEVER REST THEIR HANDS, ARMS, HEAD, OR ANY OTHER BODY PART ON THE MACHINE.

IMPORTANT SAFEGUARDS

Operator Skill Level Descriptions

These descriptions and levels are uniform across all IPG Case Sealers

Skill “A” Machine Operator

This operator is trained to use the Case Sealer with the machine controls, to feed cases into the machine, make adjustments for different case sizes (USA series machines), to change tape, to start, stop, and restart production, and to clear jams and perform basic troubleshooting.

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

Skill “B” Mechanical Maintenance Technician

Also referred to as the Maintenance Champion, this technician, is trained to use the Case Sealer as the Operator is able and in addition is able to work with the safety protection disconnected to check and adjust mechanical components, to perform maintenance operations and repair the Case Sealer. A skill “B” operator is not allowed to work on live electrical components.

Skill “C” Electrical Maintenance Technician

This technician is trained to use the Case Sealer as the Operator is able and in addition is able to work with the safety protection disconnected, to check and adjust mechanical components, to perform maintenance operations and repair the Case Sealer. A skill “C” operator is allowed to work on live electrical panels, terminal blocks, and control equipment.

Skill “D” Manufacturer Technician

Skilled technician sent by the manufacturer or its agent (distributors) to perform complex repairs of modifications, when agreed with the customer.

Operators skill level required to perform the following tasks on the Machine System

OPERATION	MACHINE CONDITION	OPERATOR SKILL LEVEL	NUMBER OF OPERATORS
Tape Roll Replacement	Stopped by pressing the Emergency Stop Button	A	1
Blade Replacement	Electrical Power Disconnected	B	1
Ordinary Maintenance and Preventative Maintenance	Electrical Power Disconnected	B	1
Extraordinary Mechanical Maintenance	Running with Safety Protections Disabled	C	1
Extraordinary Electrical Maintenance	Running with Safety Protections Disabled	D	1
Drive Belt Replacement	Electrical Power Disconnected	B	1
Machine Installation & Set-Up	Running with Safety Protections Disabled	B & C	2

Proper Electrical Disconnect is achieved when the machine is unplugged from the electrical socket.

SPECIFICATIONS

RSA 20-B Dimensions

Machine Weight: 650 lbs. (295 kg)

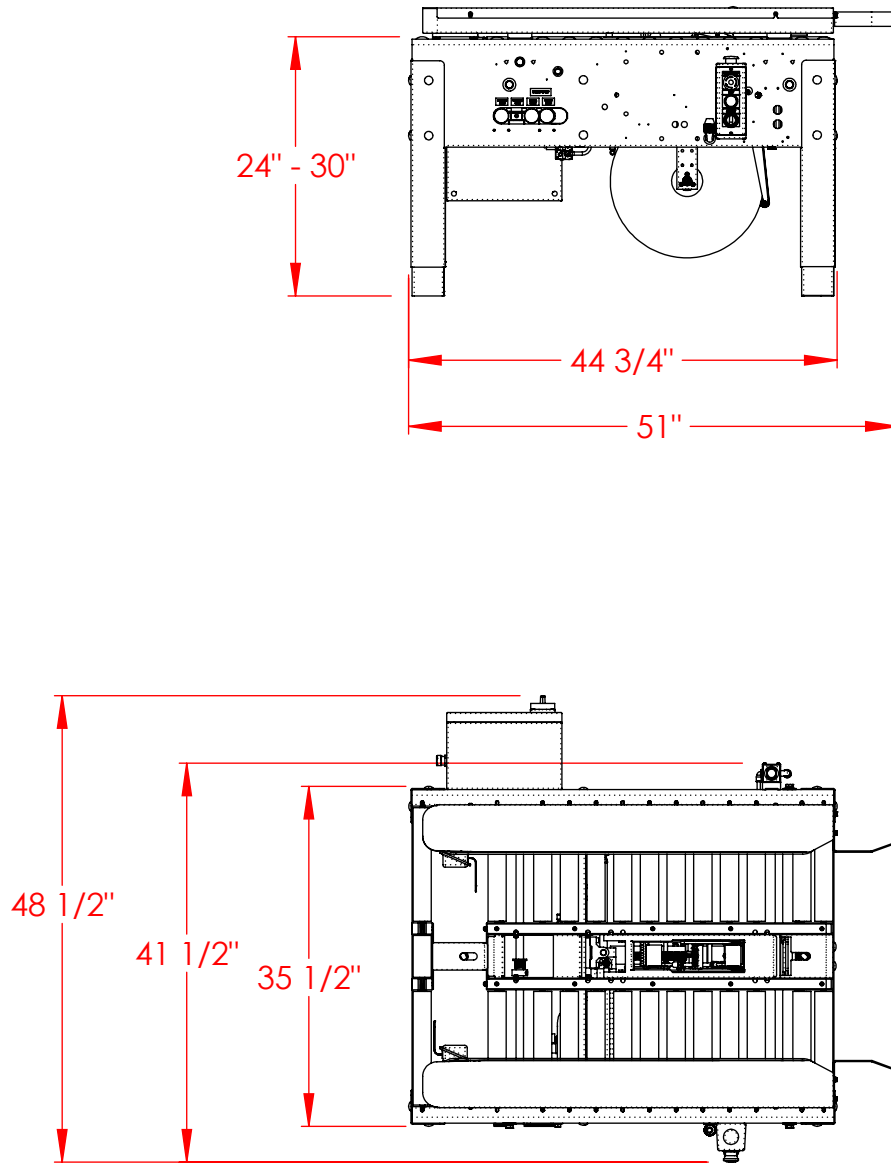


Figure 14: Machine Dimensions

SPECIFICATIONS

Machine Components

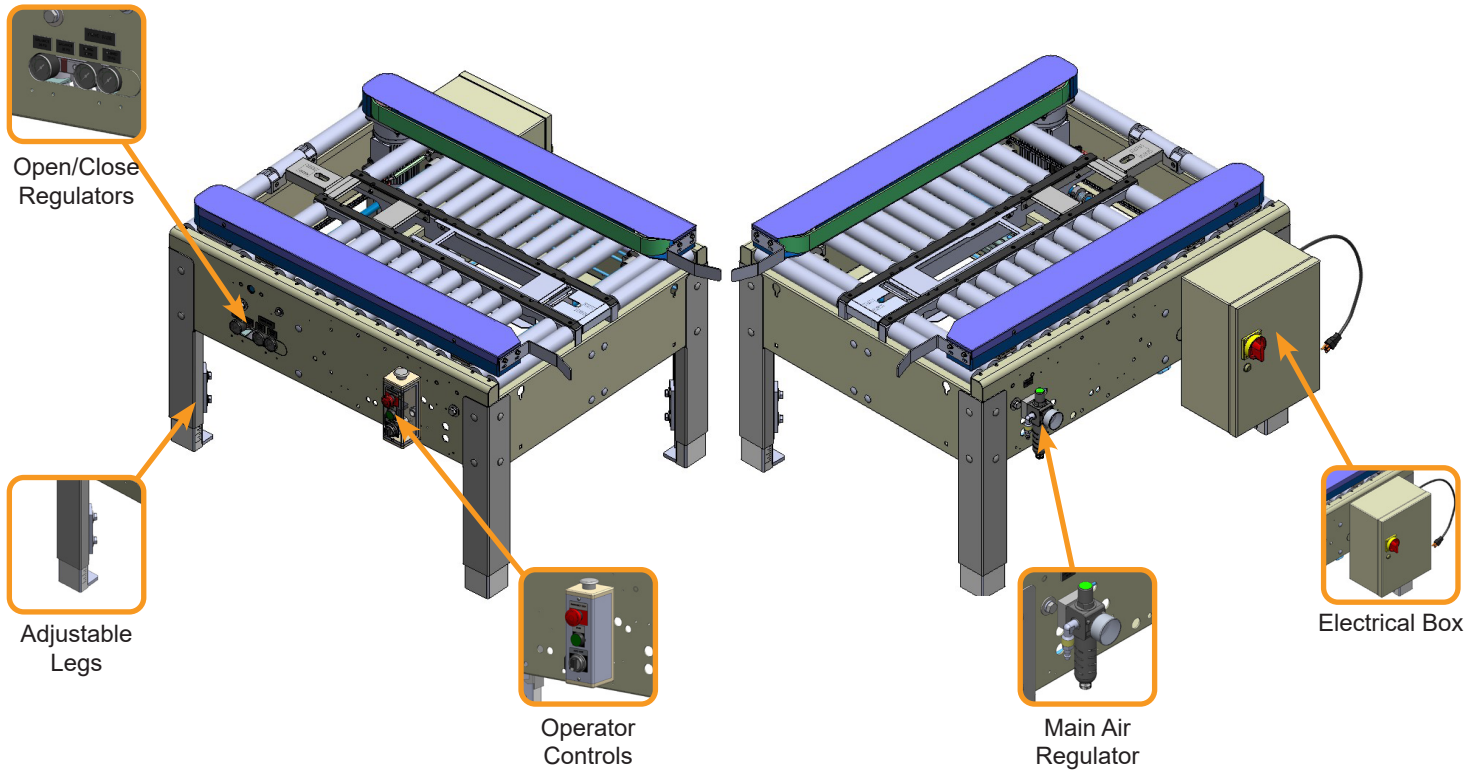


Figure 15: Machine Components

SPECIFICATIONS

Power Requirements

Electrical: **110v, 60HZ, 6A (660 Watts)**

This machine comes standard with two gear motors, one on each drive base, an electrical box, and a control box.

The control box contains a **Start** switch, an **Emergency Stop** switch, and a **Clear** push button. A 12 ft (3657.6mm) standard, three-conductor power cord with plug is provided for **110V, 60HZ, 15A** service. The receptacle providing this service **must** be properly grounded.

Pneumatic Requirements

Compressed Air: 90 PSI 9CFM

This machine comes standard with one main regulator and four sub-regulators.

Air must be clean and dry. If moisture enters the system valves can begin to degrade and lines slowly clog. This can cause reduced flow resulting in undesired machine behavior.

Operating Speed

Actual production rate is dependent on operator's dexterity and the case size mix. Belt speed is v82 ft/min, boxes must be separated by 14 in. (355.6mm).

Tape Specifications

Use only **Intertape Brand** Pressure Sensitive Tape. The machine can accommodate tape widths of 2 – 3 in. (48 - 75mm) depending on the tape heads supplied.

A maximum tape roll diameter of 16" (406mm) on a 3" (76mm) core can be installed on the tape heads. This machine can accommodate a variety of Intertape brand tape. Consult the factory if a specific tape is needed for your application.

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

The standard tape leg length is adjustable +/- ¼" (6mm). Refer to the tape head manual for your tape heads for how to adjust the tape leg length.

Operating Conditions

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C) with clean dry cartons.



CAUTION: MACHINE SHOULD NOT BE WASHED DOWN OR SUBJECTED TO CONDITIONS CAUSING CONDENSATION ON COMPONENTS.

SPECIFICATIONS

Carton Specifications

Type

- Regular Slotted Containers (RSC)
- Other styles may be processed. Consult factory.

Material

- 125 to 175 PSI bursting test, single or double wall, B or C flutes
- Other styles may be processed. Consult factory.

Weight

- 0 to 85 lbs. Max (0 to 38.5 kg)

Size

Carton Size	Length	Width	Height
Minimum	6" (152mm)	4" (101mm)	3.5" (88mm)
Maximum	Infinite	20" (508mm)	Infinite

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

$$\frac{\text{Carton Length in direction of seal}}{\text{Carton Height}} > 0.75$$

SET-UP PROCEDURE

Receiving and Handling

The Interpack RSA 20-B is shipped to the customer in a box and 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.

PRIOR TO SIGNING FOR THE MACHINE INSPECT IT FOR ANY DAMAGE THAT MAY HAVE OCCURRED DURING SHIPPING

1. Remove the strapping and staples at the bottom of the box
2. Lift the box cover off of the machine, use caution and team lift
3. Inspect the machine for any damage that may have occurred during shipping
4. Remove the mounting bolts and nuts that secure the machine to the pallet
5. Using a forklift or other lifting device, lift the machine off the pallet
 - Install any optional casters at this point as well as adjusting leg height for desired conveyor height
6. Position the machine in its desired location
7. Remove any remaining tie wraps and shipping materials
8. Install any optionally ordered equipment

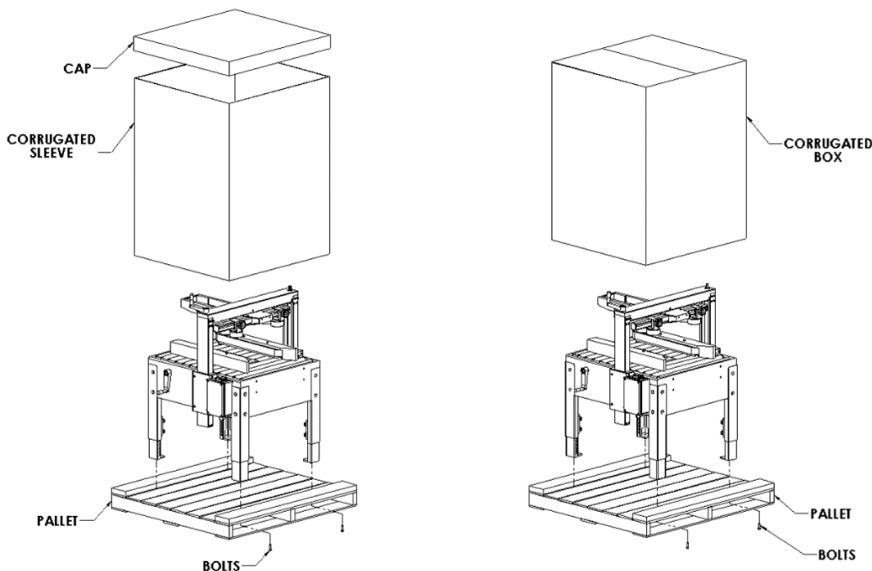


Figure 16: Unboxing

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 IPG representative as soon as possible.

Set up

The Case Sealer must be installed on a near level ground. Use the adjustable legs to ensure the machine is level and firmly planted on the ground (no rocking). Adjust the leg height with the four (4) telescopic adjustment legs to accommodate conveyor heights from 24 to 30 inches. Consult with the factory for any other conveyor heights that may be required.

To adjust the Case Sealer height, jack up the machine to give ample room to extend the legs. Using a 19mm box end wrench, loosen the eight (8) M12mm hex bolts. Adjust the legs to the desired conveyor height and tighten the bolts. Etched lines on the legs ease leveling.

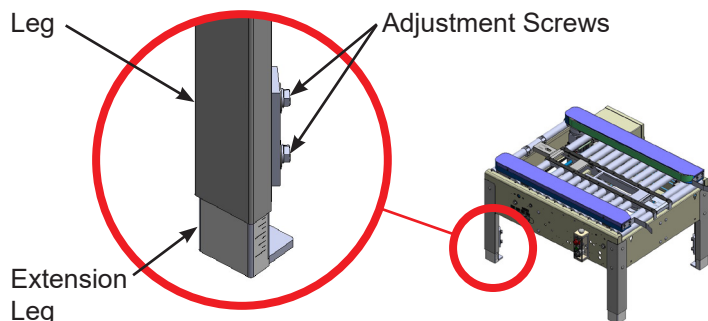


Figure 17: Leg Adjustment

Customer supplied feed conveyor (if used) should provide straight and level entry into the Case Sealer. Customer supplied exit conveyor (if used) should be straight and declined no more than 20mm/meter away from the Case Sealer to convey the sealed cartons away from the machine.

SET-UP PROCEDURE

Optional Equipment: Caster Installation



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.

Be advised there are several ways to install the casters on IPG Case Sealers. Consult your company's safety practices after reading through the below directions. Take all precautions necessary.

1. Raise the machine to allow access to the bottom of each leg.
2. By hand, screw the caster into each leg.
3. Using a wrench, verify each caster is firmly seated to the bottom of the legs.
4. Lower the machine back down until it is resting on the casters.
5. Adjust the legs as necessary to achieve proper level of the machine.



CAUTION: DO NOT ADJUST THE HEIGHT USING THE CASTERS. HEIGHT CHANGES ARE TO ONLY BE MADE BY ADJUSTING THE LEG EXTENSIONS.

6. Position the machine in its desired location.
7. Lock the casters.

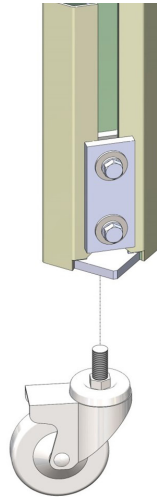


Figure 18: Caster Installation

SET-UP PROCEDURE

Optional Equipment: In-feed/Out-feed Table Installation

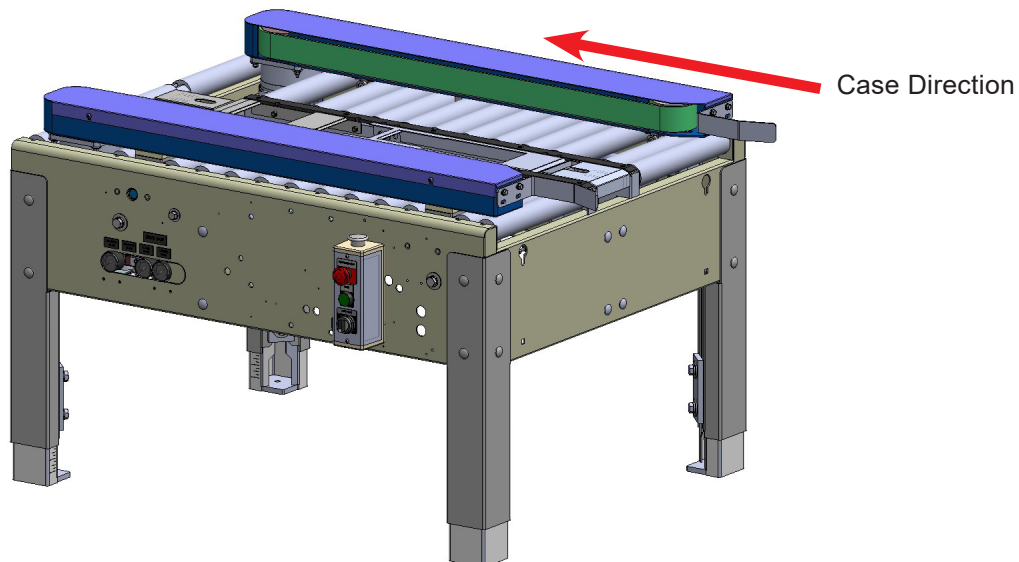


Figure 19: Case Direction

IPG Case Sealers come with the necessary mounting points for in-feed/out-feed tables. The optional in-feed/out-feed tables will come with all necessary hardware to mount to the machine. The case sealers can accept a variety of table sizes. Please consult with the factory on the best size table for your application.

1. Loosely install two carriage bolts into top two mounting holes on roller table with hardware included.

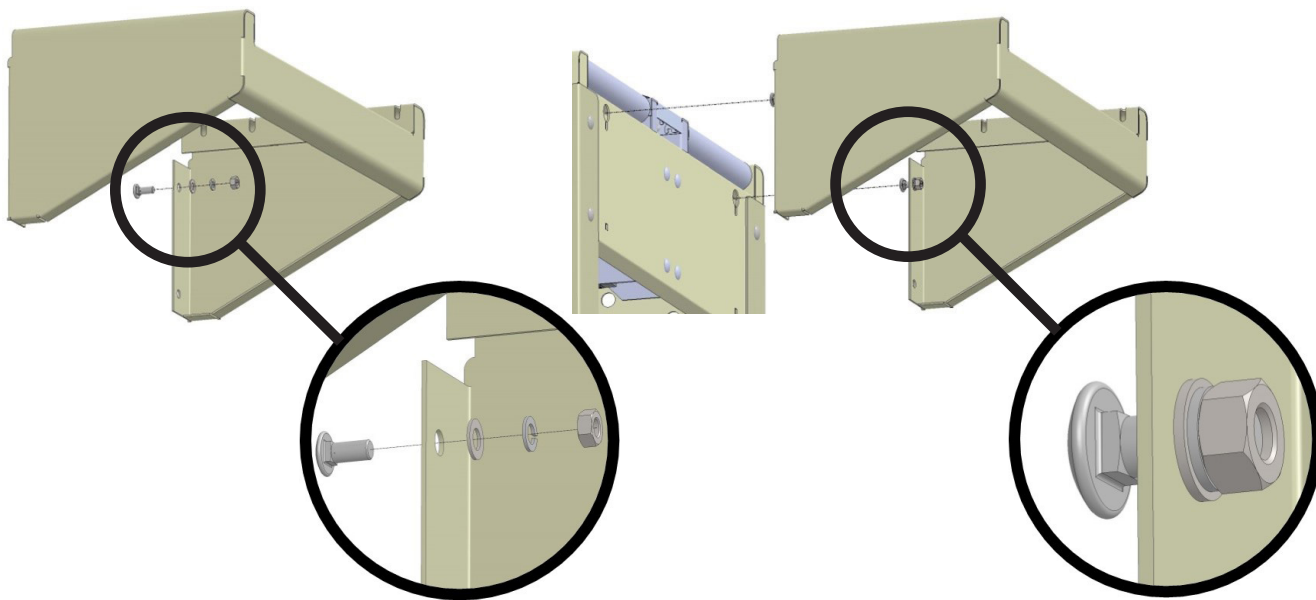


Figure 20: Carriage Bolt Assembly

SET-UP PROCEDURE

Optional Equipment: In-feed/Out-feed Table Installation (Continued)

- Utilizing the slots on the machine base, attach roller table to machine base by locating carriage bolts in slots on machine base and push down to lock in place. Make sure carriage bolts are properly aligned into slot when pushed down to lock in place before proceeding.

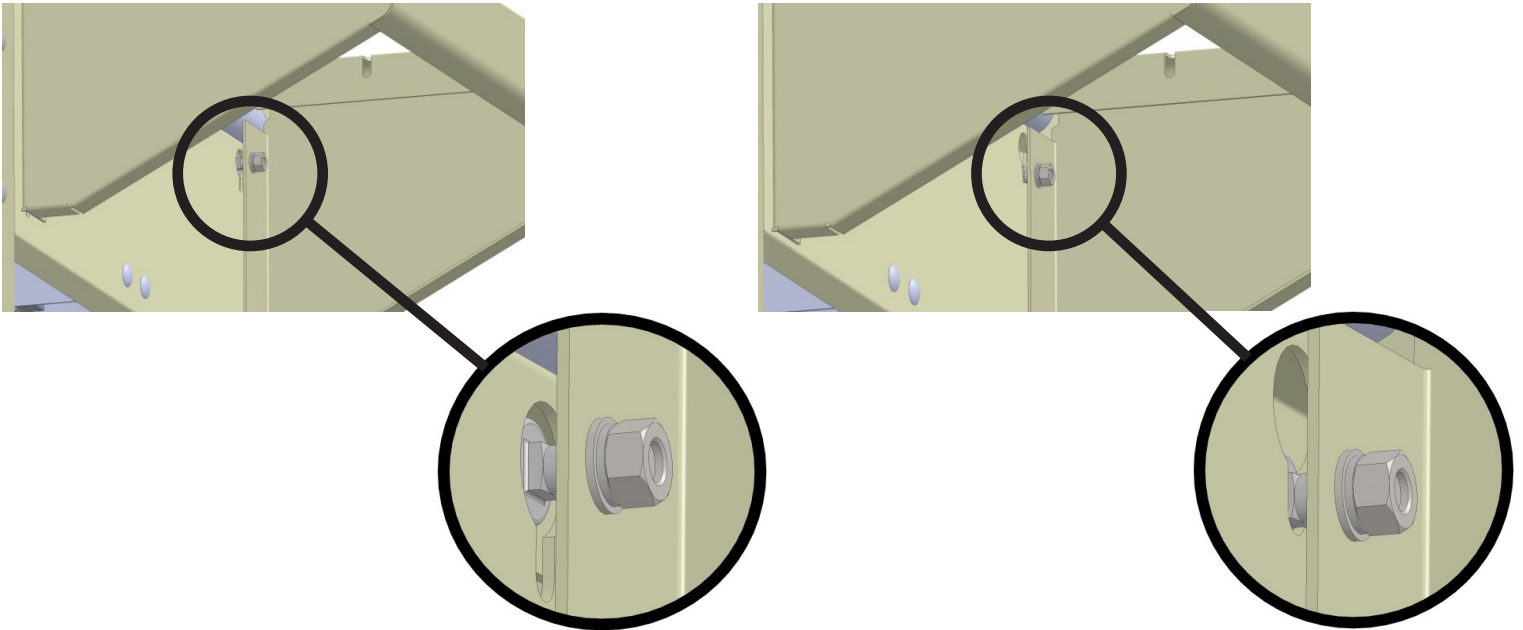


Figure 21: Table to Machine Base Installation

- Once roller table is attached to the machine base using the two carriage bolts, install remaining two carriage bolts with hardware included through the bottom two holes on the machine base and roller table.

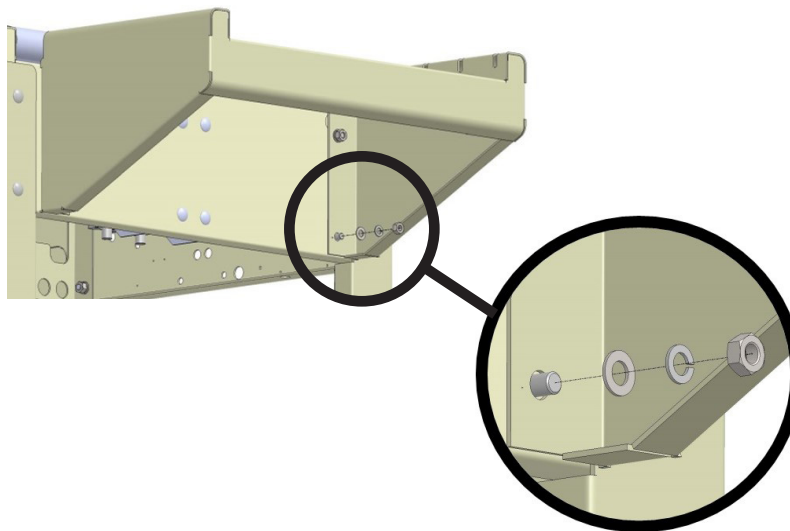


Figure 22: Remaining Carriage Bolt Installation

- After all four mounting studs and included hardware have been installed, tighten all hardware to avoid roller table instability then install rollers on table.

SET-UP PROCEDURE

Optional Equipment: Installation of External In-feed and Exit Conveyors

IPG does not supply conveyors. All conveyors are to be customer supplied.

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

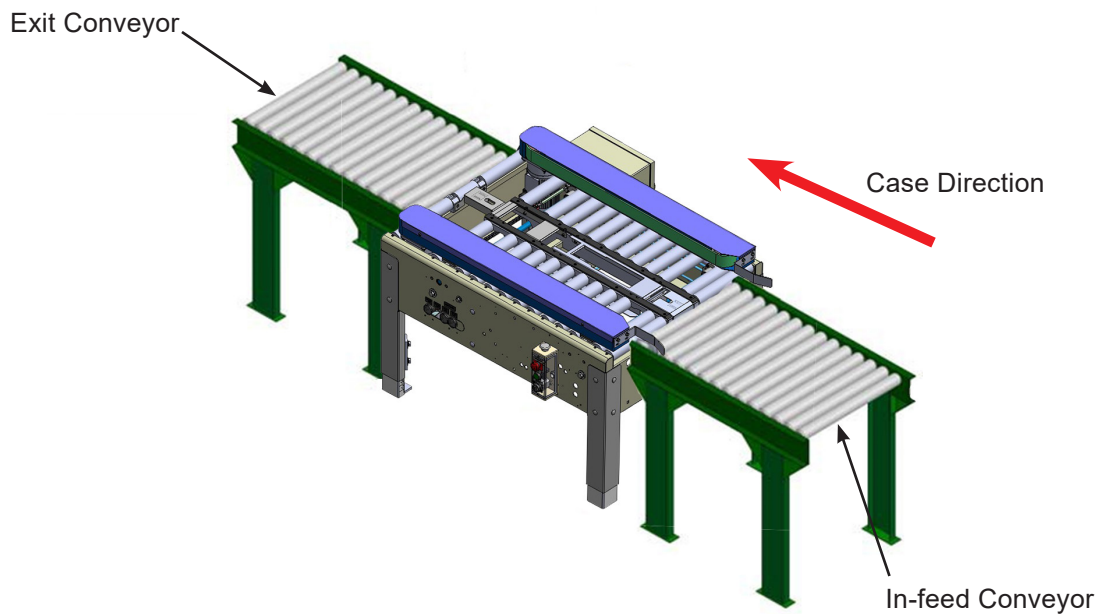


Figure 23: Installing In-Feed and Exit Conveyors

CONNECTING UTILITIES

Electrical Utilities

A 12 ft (3657.6mm) standard three-conductor power cord with plug is provided for 110V, 60HZ, 15A electric 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.

The electrical box is located on one side of the RSA 20-B Case Sealer.

The control box contains a **Start** switch, an **Emergency Stop** switch, a **Clear** push button, and a Plug. A 12 ft (3657.6mm) standard, three-conductor power cord with plug is provided for **110V, 60HZ, 15A** service. The receptacle providing this service **must** be properly grounded.

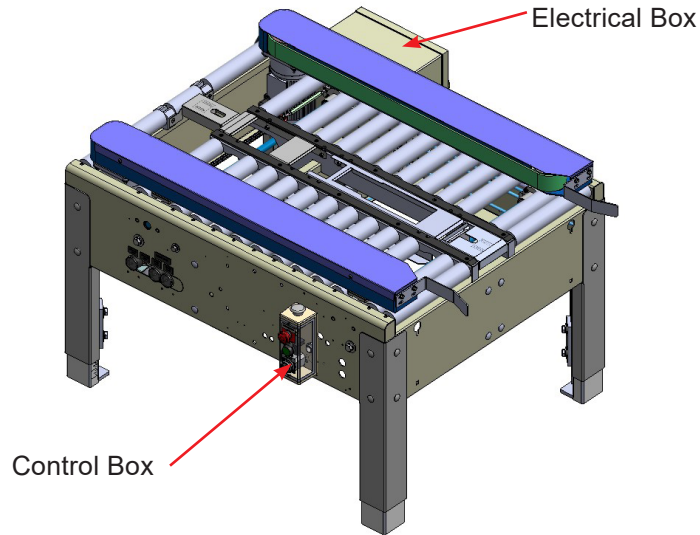


Figure 24: Electrical Utilities

The electrical box and control box can be moved to the opposite side of the machine. This requires disconnecting and reconnecting electrical wires and components. Only trained and qualified service technicians should access and open the control box.

If reversing the electrical utilities is required it is recommended to have this done at the factory prior to machine delivery. Please consult your IPG Representative if this process is required.

CONNECTING UTILITIES

Pneumatic Utilities

The pressure setting for the main air regulator is factory set. The values will need to be adjusted as needed by customer supplied pressure and volume.

The main air regulator has a male quick disconnect adapter. Connect clean dry compressed air to this adapter. The RSA 20-B Case Sealer requires a minimum of 9 CFM at 75 PSI.

To regulate the main air pressure, pull on the knob located on the top of the main air regulator. Turn the knob clockwise for more pressure and counterclockwise for less. When the air pressure is at 75 PSI, push back down on the button until a “click” is felt to lock it in position. The thread size is 3/8 NPT.

Should the supplied airline or pressure be unplugged or cut for any reason, tape will not feed and rollers will not be activated if box is processed.



Figure 25: Main Air Regulator

The pressure regulators in control various operations of the machine. The regulator on the left labeled “**BALANCE**” controls the pressure of top tape head box balance. This is responsible for controlling the ascent and descent of the machine bridge, the recommended pressure is **45 PSI**. The regulators in the middle labeled “**OPEN**” and right labeled “**CLOSE**” control the pressure for the drive bases. The recommended pressure settings for the “**OPEN**” and “**CLOSE**” regulators is **30 PSI**.



Figure 26: Sub-Regulators

OPERATOR CONTROL BOX

Make sure machine is connected to air supply of at least 90 PSI and machine regulator is set at 75 PSI. The following describes the use of control box buttons:

1. **Clear** button This button is used to simplify clearing a jam during production. Pressing this button will raise the bridge all the way and open the belts to their maximum position.
2. **Emergency Stop** - De-energizes the machine.
3. **Start** button
 - On Auto mode, starts machine.
 - On Bottom mode, raises the bridge all the way and starts machine.
4. **Plug**

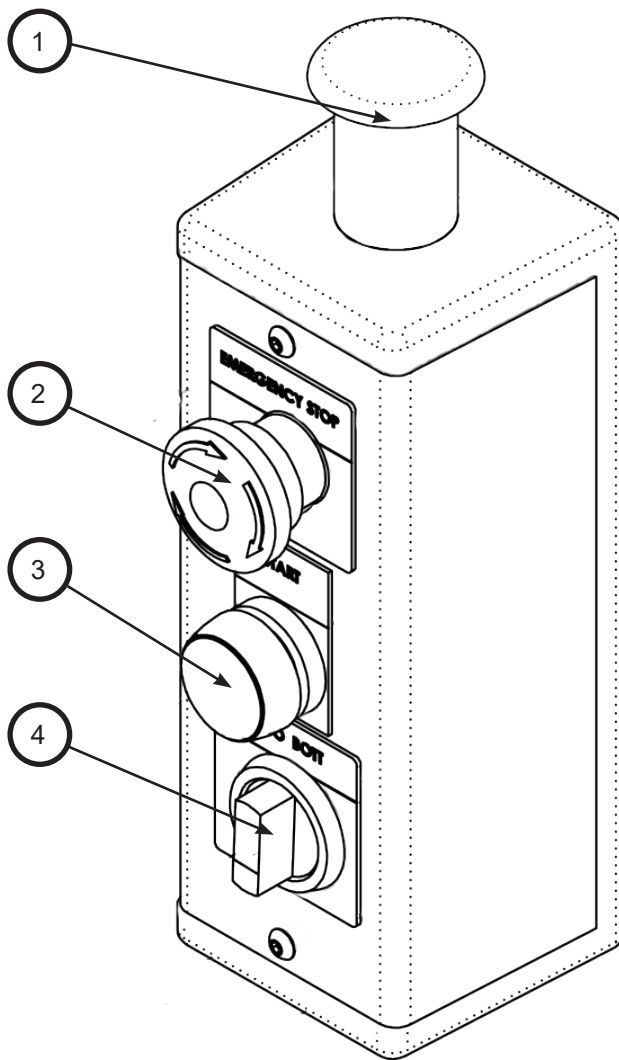


Figure 27: Operator Control Panel

TAPE HEAD LOADING/THREADING

The RSA 20-B comes equipped with two (2) ETII+ 2" tape heads standard. Optional 3" and ETX tape heads are available, please consult your authorized IPG Representative.

Removing the Bottom Tape Head

The bottom tape head is held in by gravity. To remove the bottom tape head you must raise the bridge all the way to allow for room. The bottom gap fill plate, if installed, will need to be removed prior to removing the tape head. The bottom tape head can then be pulled straight up out of the cavity. See figure 31 for details.

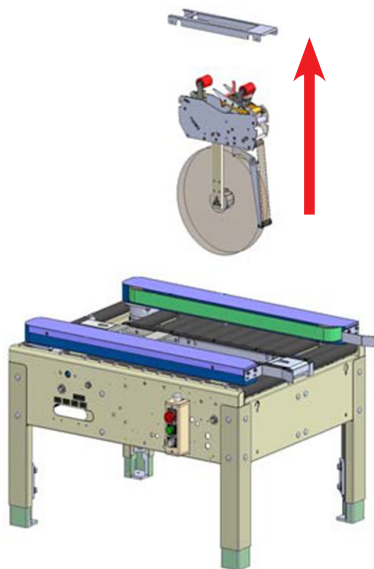


Figure 28: Removing the Bottom Tape Head

TAPE HEAD LOADING/THREADING CONTINUED

Tape Threading

Tape threading is simple and easy. Below are two diagrams for the ETII+ and ETX tape path. Please refer to the tape head manual for your installed tape head for a full set of instructions on how to reload and thread the tape.



WARNING: THE KNIFE BLADES IN THE TAPE HEADS ARE EXTREMELY SHARP. USE CAUTION WHEN RELOADING TAPE.

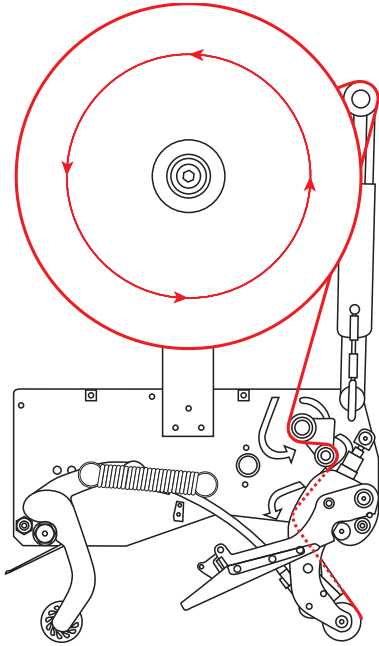


Figure 29: ETX Tape Path

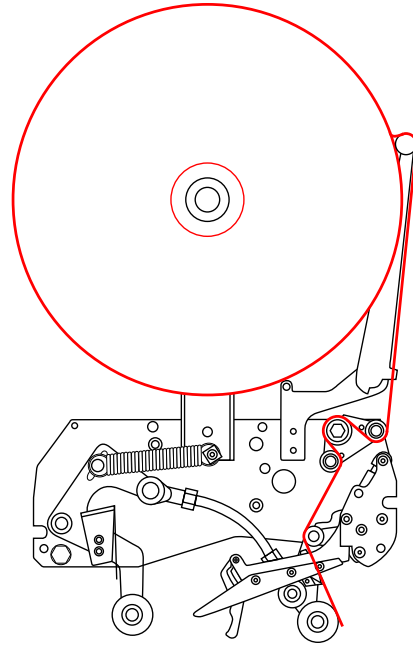


Figure 30: ETII+ Tape Path

Reinstalling the Bottom Tape Head

The bottom tape head is held in by gravity. To reinstall the bottom tape head you must raise the bridge all the way to allow for room. The bottom tape head will drop into place with the adapter pins resting in the center most pair of slots. If used, reinstall the gap fill plate around the tape head. See figure 35 for details.

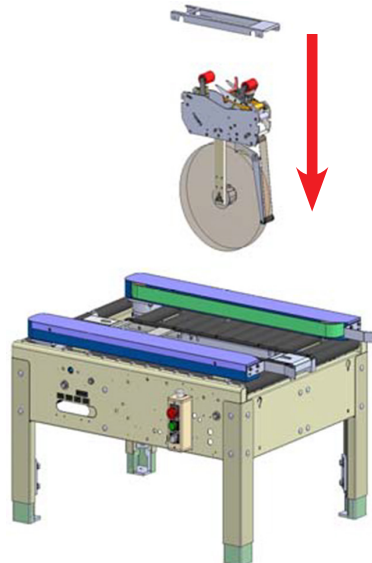


Figure 31: Reinstalling the Bottom Tape Head

OPERATING INSTRUCTIONS

Once the tape has been loaded and threaded on both the top and bottom, the case sealer is ready for use. The following instructions are presented in the order recommended for processing cases through the RSA 20-B Case Sealer.

1. Install and thread tape on the bottom of the machine (refer to Bottom Tape Head Loading/Threading).



CAUTION: THE MACHINE MAY EXPERIENCE SOME UNEXPECTED MOVEMENT WHEN FIRST CONNECTING THE AIR SUPPLY AS PNEUMATIC LINES AND CYLINDERS ARE INITIALLY CHARGED.

2. Supply or connect machine to air line, verify that the machine is set to 75 PSI.
3. Supply or connect machine to 110V electrical supply.
4. Turn on main power switch located on machine electrical box.
5. Twist all E-stops clockwise.
6. Press the Start button to turn the belts on to begin processing.
7. Introduce a case to the machine indexing gate.
8. The side belts will travel horizontally to match case width and process case through machine.
9. Once box has been processed, the belts will return to their home position.
10. Present the next box for processing.



WARNING: ENSURE THAT THE OPERATOR'S HANDS ARE AWAY FROM THE CONTACT AREA BETWEEN THE BELTS AND THE CARTON. OPERATORS SHOULD GRIP THE CASE AT THE REAR AND LET GO ONCE THE MACHINE HAS TAKEN THE CASE. IMPROPER HANDLING CAN LEAD TO INJURY.

Be sure that all cases are fed squarely and straightly into the Case Sealer, feeding cases crooked can result in poor seals. Cases must be separated by at least 14 inches.

In the event of a box jam the operator should press the Clear button. This will stop the belts and open them. This will allow the operator to clear the jam.



WARNING: DO NOT ATTEMPT TO REMOVE ANY JAMMED CASE FROM A CASE SEALER THAT IS CURRENTLY ON. DO NOT ATTEMPT TO PUSH A JAMMED CASE THROUGH THE MACHINE. THE MACHINE HAS PNEUMATIC COMPONENTS UNDER PRESSURE. NOT FOLLOWING THE PROPER CASE JAM CLEARING METHODS CAN RESULT IN INJURY. KNIFE BLADES ARE SHARP USE EXTREME CAUTION WHEN CLEARING A JAM.

The machine will remain in an off state until the Clear button is pressed a second time.

OPERATING INSTRUCTIONS

Adjusting the Machine

The RSA 20-B Case Sealer come fully adjusted from the factory for most processing conditions. Certain conditions may require adjustments or fine tuning of the machine and air pressure to provide optimal performance.

Drive Base Adjustment

Speed of closing and opening: The Flow Control Valves at each end of the drive base cylinder under the machine controls the speed of closing and opening of the drive base. Using a flathead screwdriver, turn clockwise to slow the movement of the drive bases and counter-clockwise for a faster movement. This adjustment is to be done 1/8 of a turn at a time. The flow controls regulate the flow of the air exiting the cylinder.

For Heavy cases: If drive bases do not close completely to power the case during processing, increase air pressure on the "Drive Base – Closed" regulator. The air pressure should be increased by 5 PSI at a time by turning the knob clockwise until the box can be centered by the drive bases. Different types of boxes may require slightly different adjustments than those that are factory-preset.

For fragile cases: To prevent the drive bases from closing too quickly and too hard on fragile boxes, the air pressure regulator and flow controls can be adjusted as necessary.

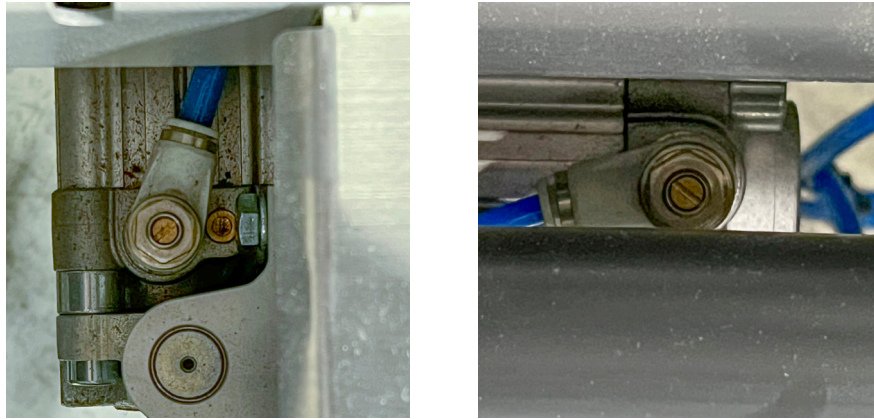


Figure 33: Drive Base Adjustment



CAUTION: IT IS RECOMMENDED TO HAVE AN EXPERIENCED TECHNICIAN OR IPG TECHNICIAN CONDUCT THESE FINE TUNING ADJUSTMENT. FAILURE TO CORRECTLY ADJUST THE LEFT AND RIGHT SIDES EVENLY CAN RESULT IN POOR PERFORMANCE AND/OR OPERATOR INJURY.

TROUBLESHOOTING

The RSA 20-B 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 troubleshooting guides. If the problem you encounter is not discussed in this section, call Interpack Technical Support.

IPG Machinery Support is available Monday through Friday from 8am until 5pm Eastern Time.

The following is a short set of brief questions and answers for some mild troubleshooting in pressure sensitive case sealers. More in-depth troubleshooting can be found in the following pages.

Q: Why does my front tape leg fold down in the tape head?

In most circumstances the tape leg can fall over when strong air circulation has been turned on in the vicinity, normally this can happen when the heating or air conditioning is turned on. Other options can include the tape not being threaded through the tape shoe or the spring tab in the tape shoe is broken.

Q: Are the top and bottom tape heads interchangeable?

All IPG tape heads can be used in a top or bottom configuration. The only recommended change is to install the correct spring in the tape head. A lighter spring is recommended for the top head and a heavier spring is recommended for the bottom tape head.

Q: The machine shipped with 2” tape heads, can I change them to 3”?

All currently manufactured IPG case sealers can accept either 2” or 3” tape heads. Many machine models will need to have the top and bottom gap fill plates removed to accept a 3” tape head. Some old models of machines can only accept a 2” tape head. If you have an older machine please contact IPG Machinery Support for confirmation.

Q: What is the best way to clean the tape heads?

It is recommended to clean the tape path with a mild detergent and water solution. Do not use any harsh industrial cleaners as they can deteriorate parts quickly. Do not use excessive amounts of water and dry the tape head soon after washing.

Q: Can we reverse the side the tape is loaded on?

Standard IPG tape heads cannot be modified in this way, however, both ETII+ and ETX tape heads are available in mirror versions. These are available in both 2” and 3” tape heads.

Motor Overloads

The electric motors are protected with an automatic re-settable overload (Figure 42). This reset is located in the electrical box in the lower left quadrant. Push on the top blue button to reset. The current setting should be set at 110% of the FLA (Full Load Amps) of a single motor.

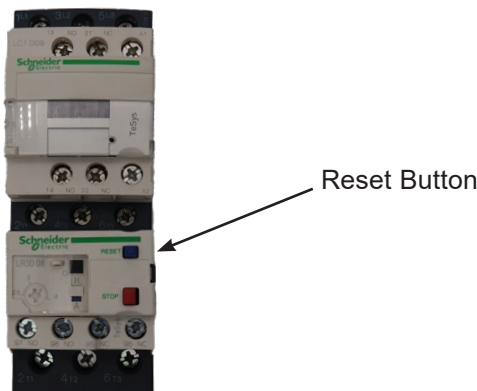
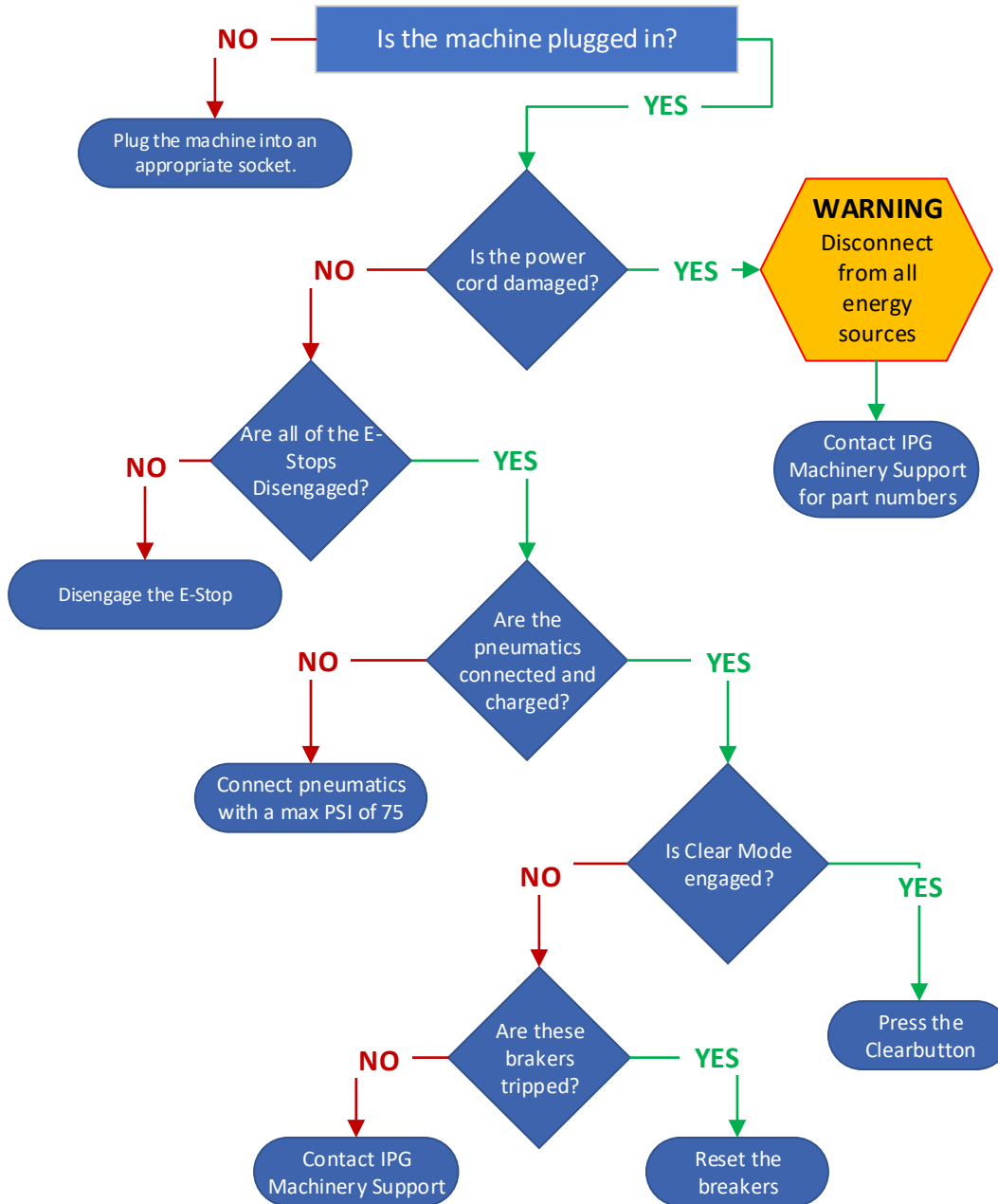


Figure 34: Motor Overload

TROUBLESHOOTING

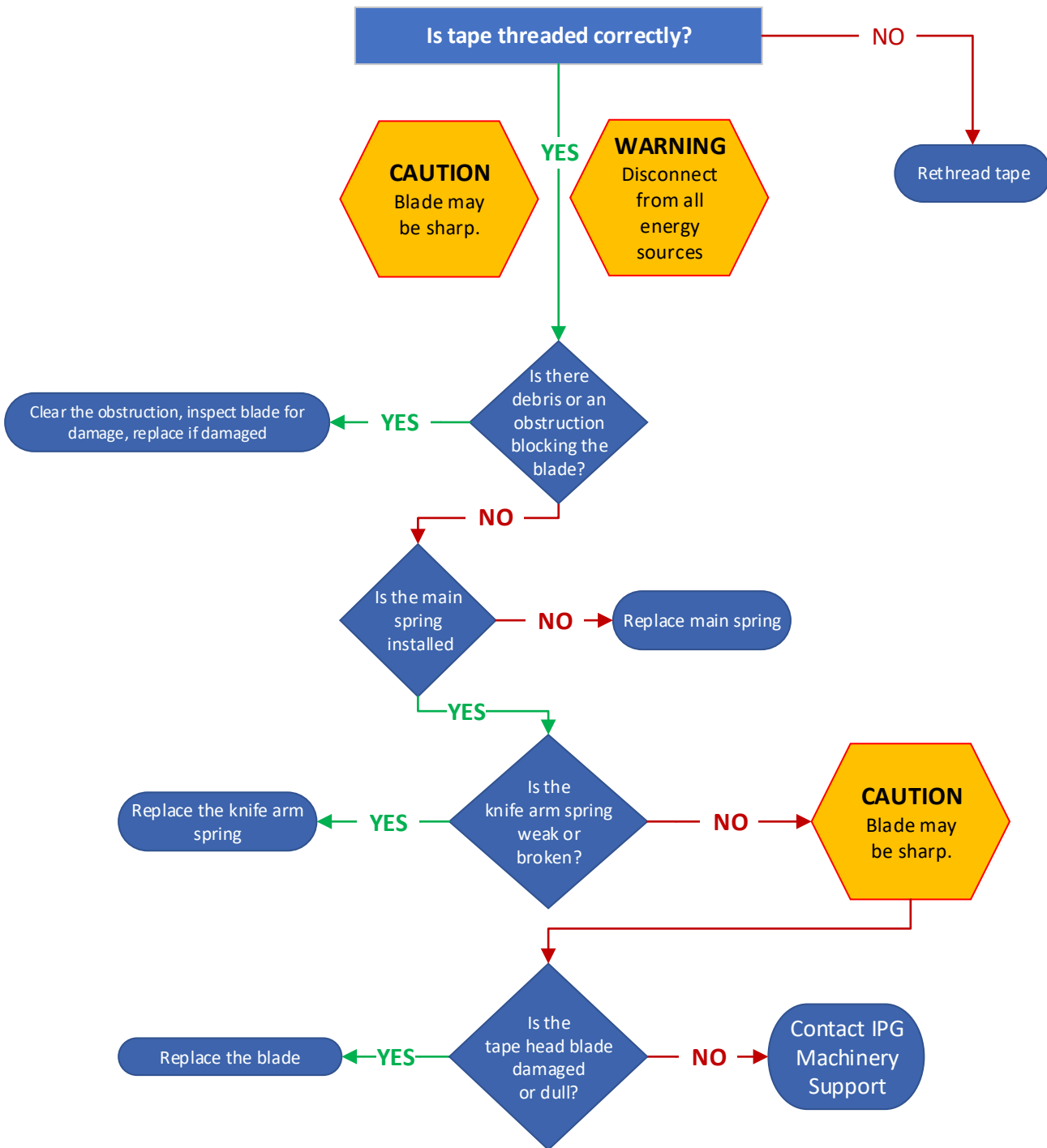
The Machine is Turned on and Nothing Happens



IPG Machinery Support
877-447-4832 Option 4

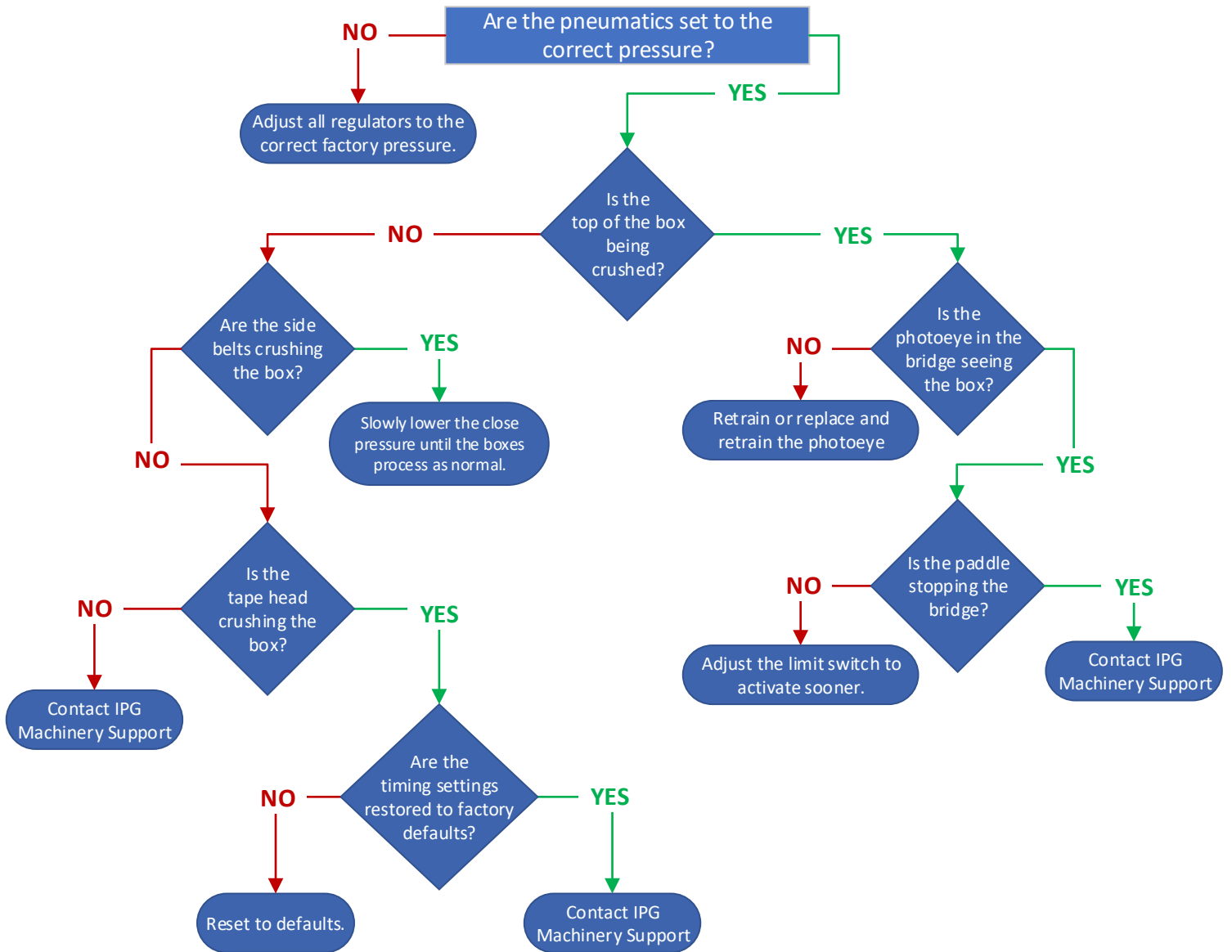
TROUBLESHOOTING

Tape Does Not Cut

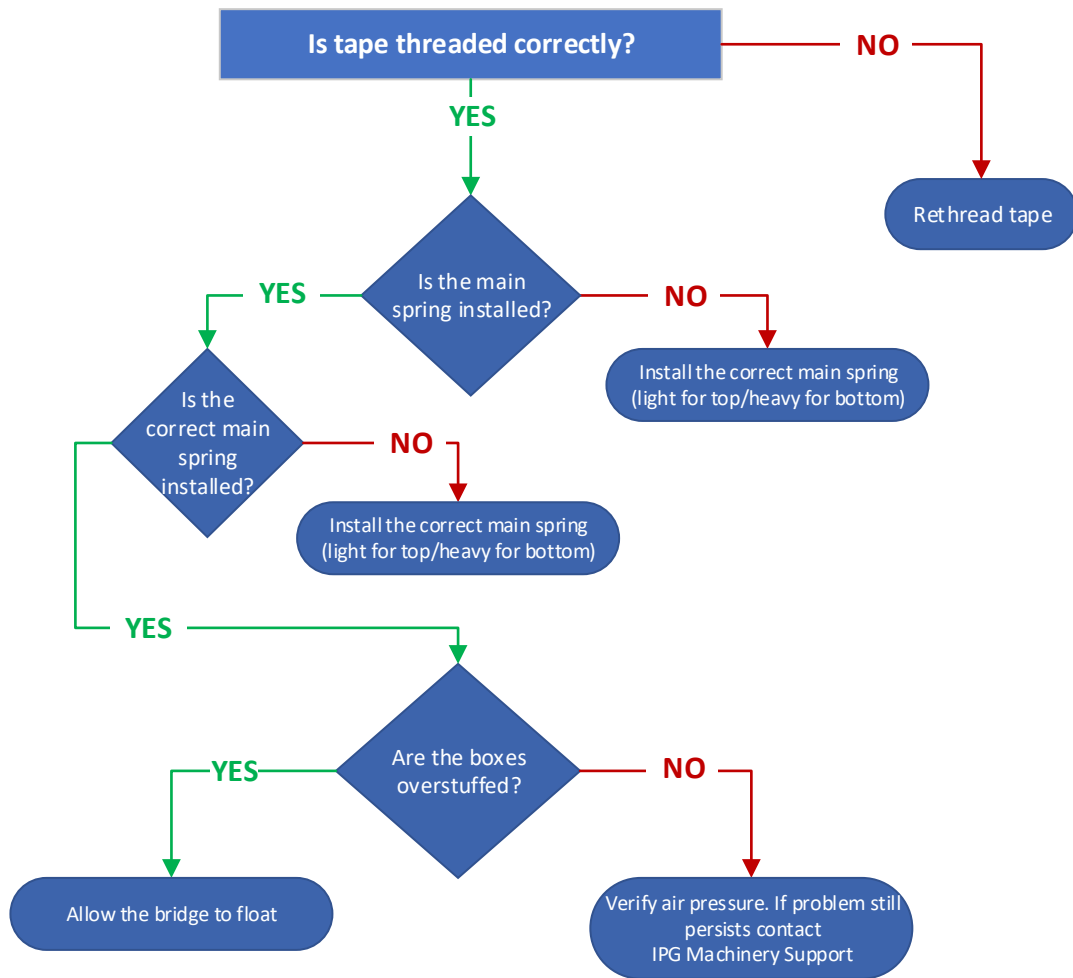


IPG Machinery Support
877-447-4832 Option 4

Case is Getting Crushed

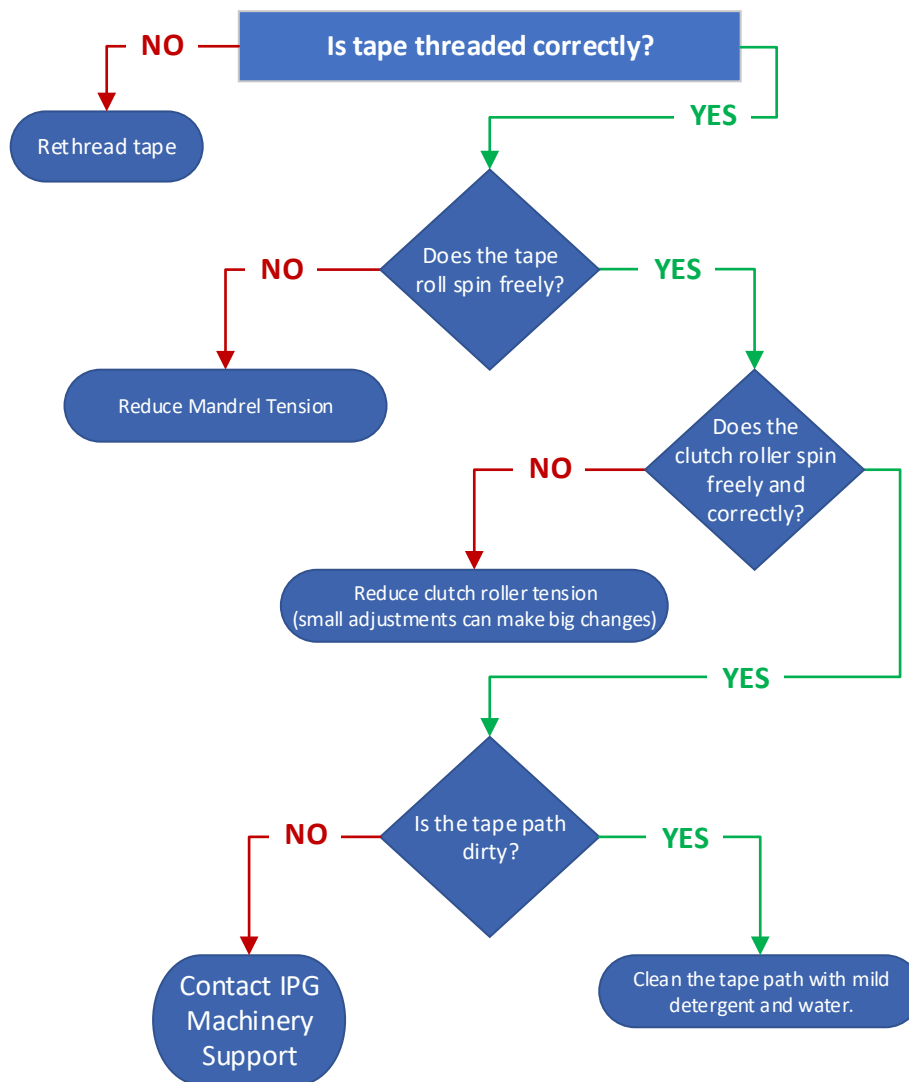


Poor Tape Wipedown



IPG Machinery Support
877-447-4832 Option 4

Rear Tape Leg is Tabbing



IPG Machinery Support
877-447-4832 Option 4

MAINTENANCE

The RSA 20-B 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. Review the illustrations and chart below for information regarding machine maintenance.



WARNING: TURN OFF ELECTRICAL POWER AND LOCK OUT THE ELECTRICAL SUPPLY BEFORE CLEANING OR MAINTENANCE. IF POWER CORDS ARE NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Lubrication:

Spray centering guide shafts and compression guide shafts once a month with a silicone based dry film lubricant. This will not attract dust or lint from the surroundings.

Apply chain lube on the drive and centering guide chain once a month.

No other lubrication is necessary to operate the machine.

Cleaning:

Cartons produce a sizable amount of dust and paper chips when processed or handled. If this dust is allowed to build up in the machine, it may cause component wear and overheating of motors. Remove the accumulated dust with a shop vacuum. Avoid using compressed air to remove the dust as this may cause the dust to penetrate into parts.

Item	Action Required	Material	Frequency		
			Weekly	Monthly	Quarterly
Carton Dust In/On Machine	Blow off machine externally and internally, pay attention to drive base centering chain	Air Hose	X		
Hardware	Re-tighten any loose hardware, replace any missing hardware			X	
Cross Shafts	Lubricate	Dry PTFE		X	
Centering Chain	Lubricate	Chain Lubricant		X	
Air Regulator Filter	Clean filter	Water, Mild Detergent		X	
Tape Path	Clean to remove adhesive	Water	X		

Recommended Spare Parts:

It is recommended to keep a small supply of spare parts on hand in order to reduce any potential down time for maintenance. Different applications of machinery may require some amendments to this list, please consult IPG Machinery Support for any additional recommended material.

Description	Item Number	QTY
Pressure Gauge	UPM3273	1
Emergency Stop Button	UPM4516	1
Driving Belts	UPM0663	2
Drive Motor	UPM7116CD	1
Tape head spare kit	See tape head manual	1

Please consult the tape head manual for the model of tape head that is currently installed in the machine for its preventative maintenance schedule as well as any recommended spare parts.

MAINTENANCE

Changing the Air Regulator Filter

The filter on the air regulator removes dirt and moisture from air plant before it enters the carton sealer.

1. To remove metal protective guard, press down on locking tab located towards the top of the guard, rotate guard and pull down.
2. The clear reservoir has a threaded top, which is used to attach it to the main regulator assembly. To remove the reservoir, rotate it until unfastened.
3. The air regulator filter is held in place using a threaded cap fastened on to the main assembly. To remove the filter, unfasten the cap and pull down on filter.

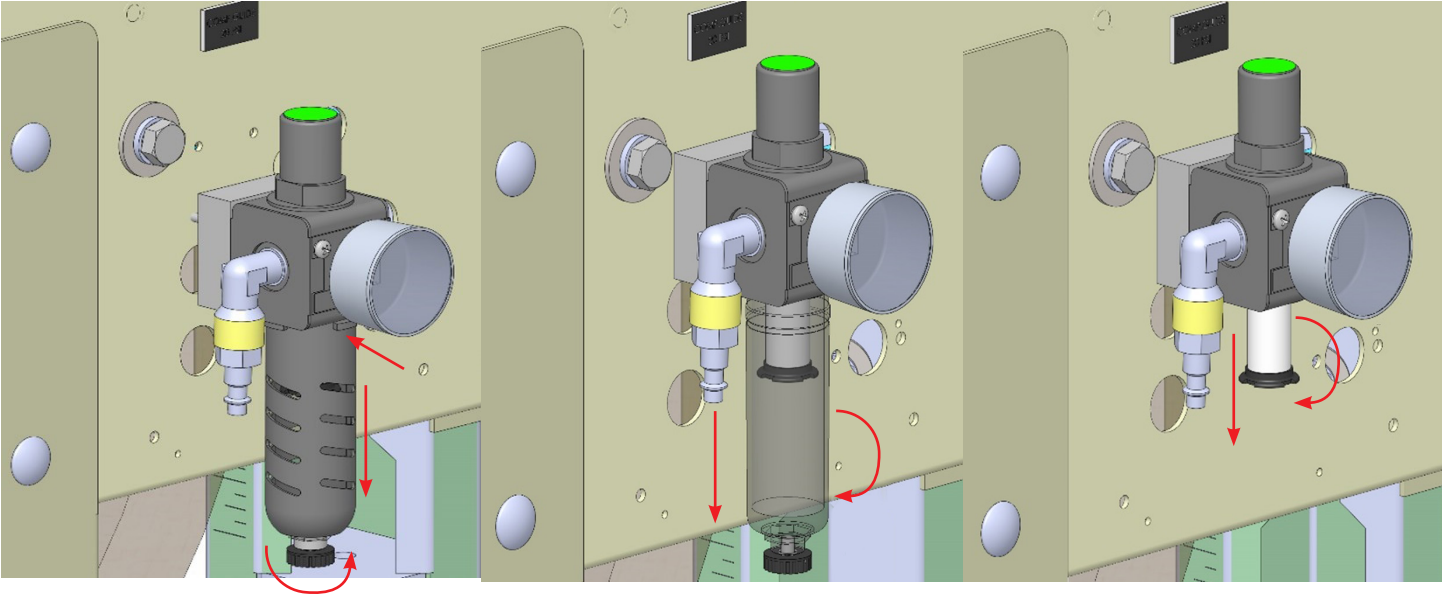


Figure 35: Filter Regulator

MAINTENANCE

Drive Belt Replacement

1. Using a 4mm Allen key, remove two screws and remove drive base cover.

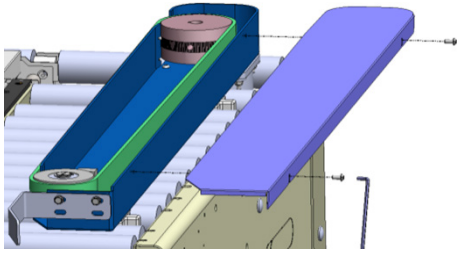


Figure 36: Drive Base Cover

2. Using appropriate Allen key and wrench, loosen belt tensioning bolts.

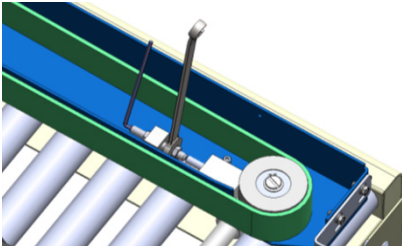


Figure 37: Loosen Belt Tension Bolt

3. Remove worn belt and replace with new belt.

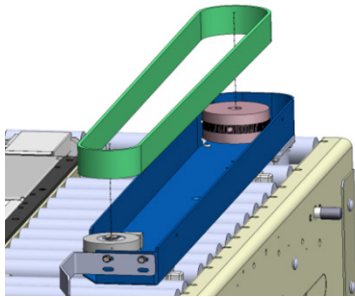


Figure 38: Replace Belt

4. Using appropriate Allen key and wrench, tighten belt tensioning bolts. Be sure to equally adjust tensioning bolts for both drive belts.

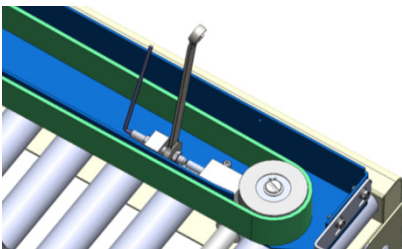


Figure 39: Tighten Belt Tension Bolt

5. Proper belt tension is achieved when a 5-pound pull force is used to create a 25mm (1 in.) gap, as shown in the middle of the drive base.

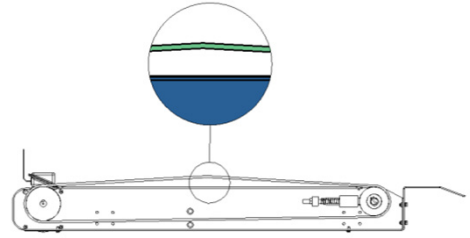


Figure 40: Proper Belt Tension

6. Intertape S/B drive idler pulleys are engineered to self-track to center. After tensioning, if the belts do not track on center, contact maintenance or your IPG Distributor.

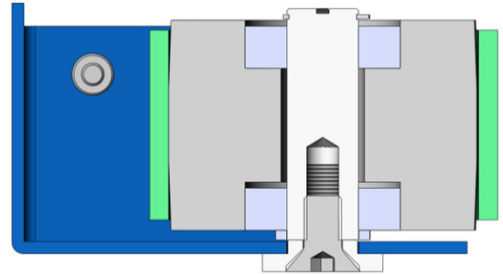


Figure 41: Self-Center Pulley

7. Using a 4mm Allen key, replace drive base cover, as shown.

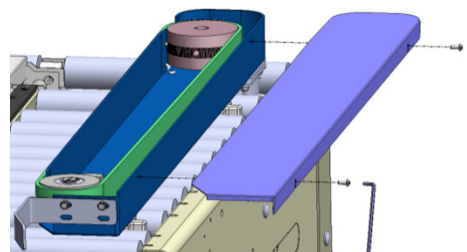


Figure 42: Drive Base Cover

MAINTENANCE

Drive Belt Adjustment

1. Using a 4mm Allen key, remove two screws and remove drive base cover.

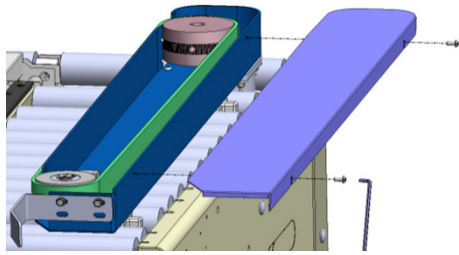


Figure 43: Drive Base Cover

2. Using appropriate Allen key and wrench, tighten belt tensioning bolts. Be sure to equally adjust tensioning bolts for both drive belts.

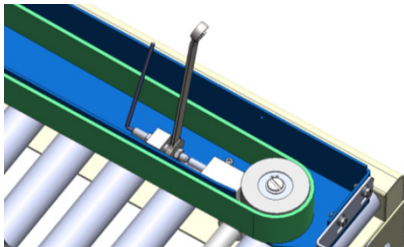


Figure 44: Tighten Belt Tension Bolt

3. Proper belt tension is achieved when a 5-pound pull force is used to create a 25mm (1 in.) gap, as shown in the middle of the drive base.

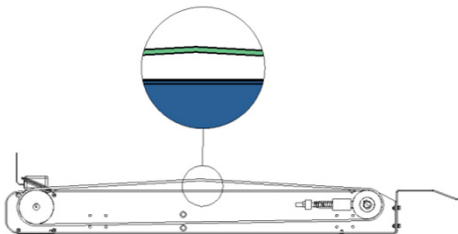


Figure 45: Proper Belt Tension

4. Intertape S/B drive idler pulleys are engineered to self-track to center. After tensioning, if the belts do not track on center, contact maintenance or your IPG Distributor.

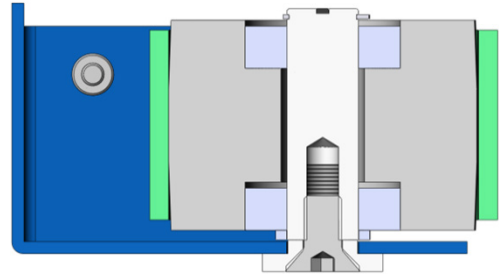


Figure 46: Self-Center Pulley

5. Using a 4mm Allen key, replace drive base cover, as shown.

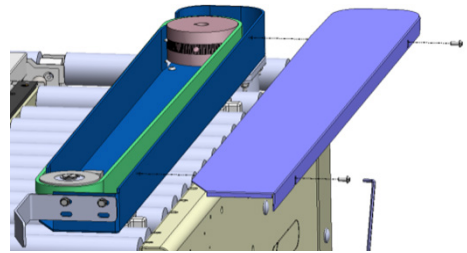
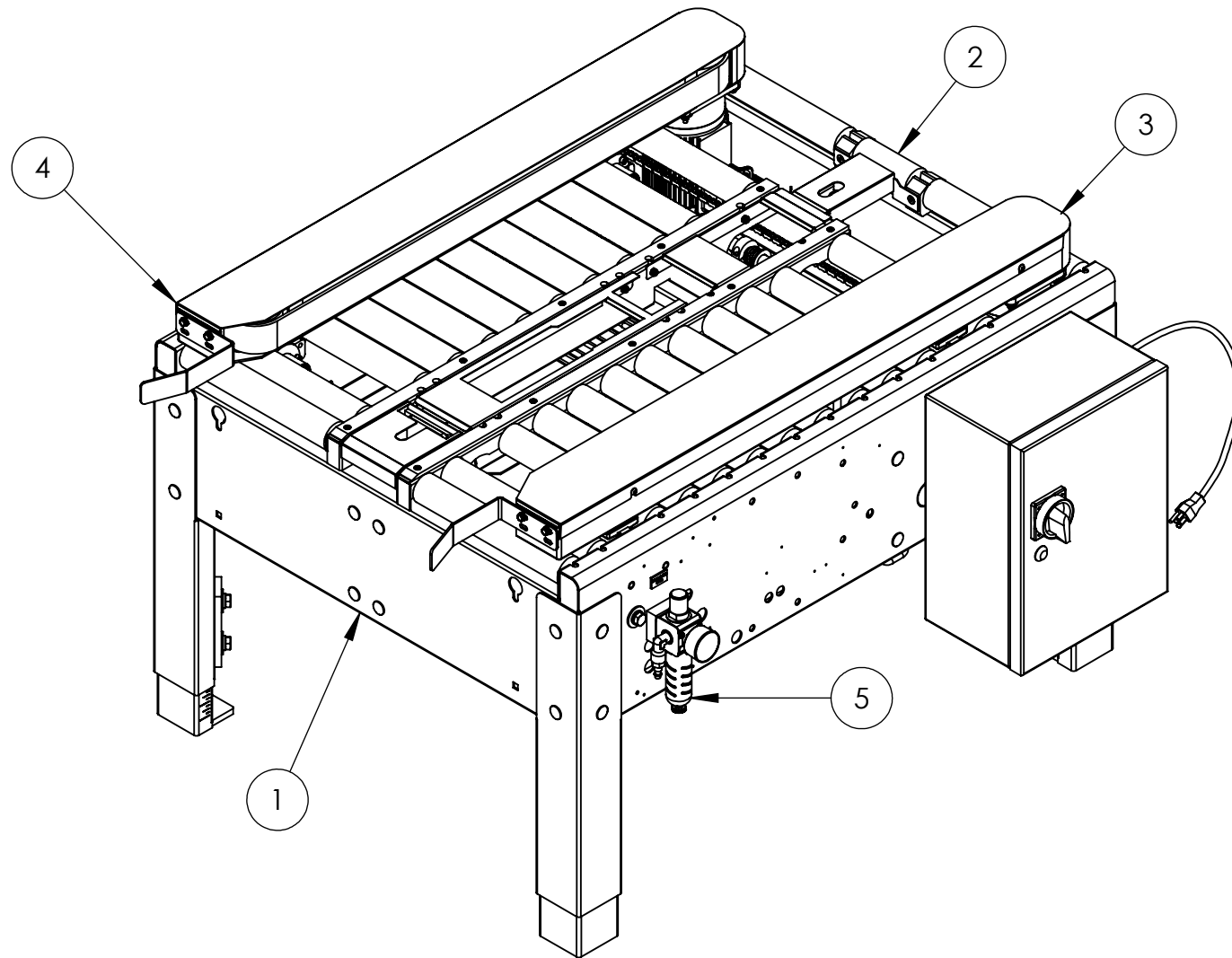


Figure 47: Drive Base Cover

APPENDIX A - MACHINE DRAWINGS

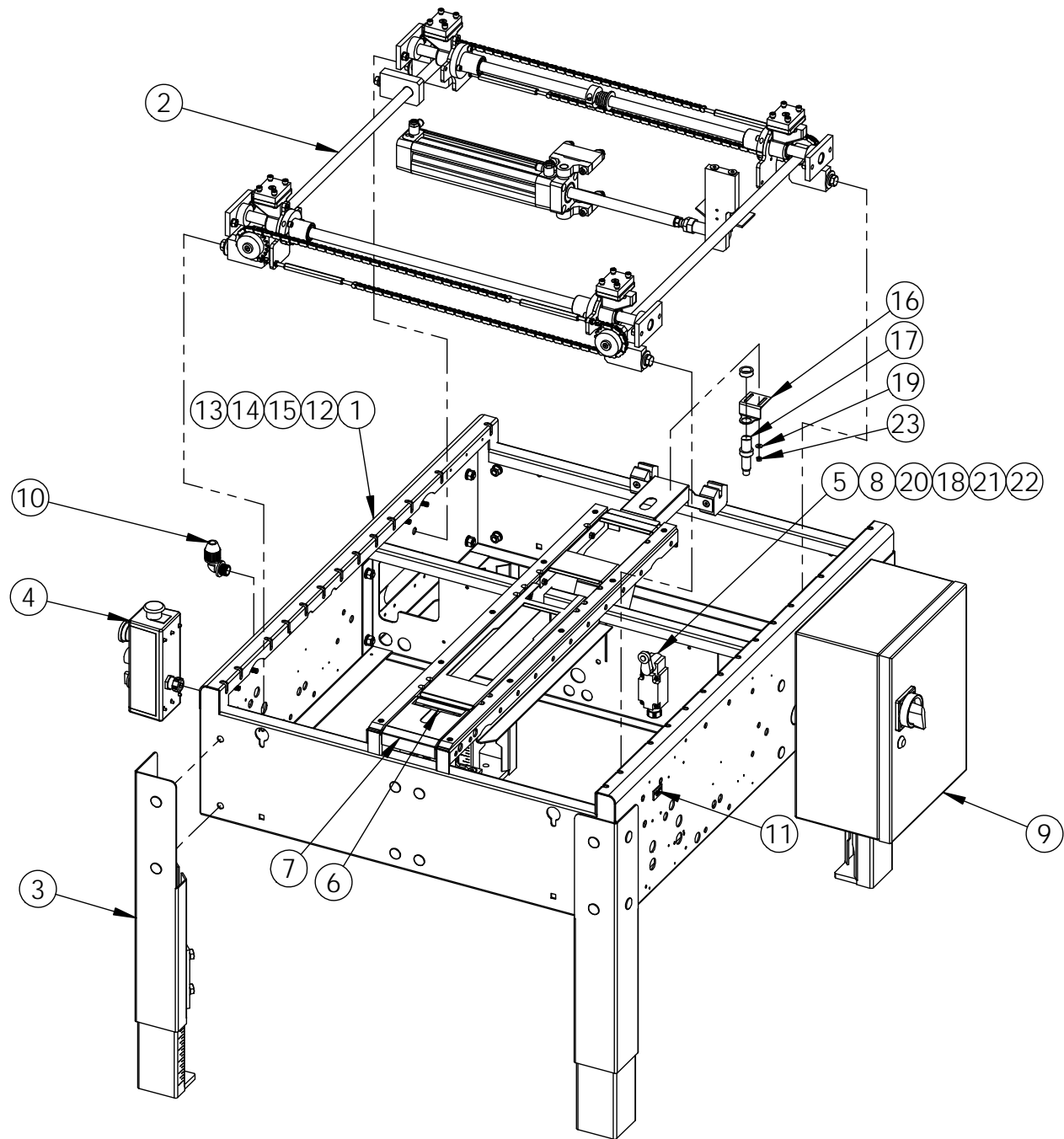
User Notes

UM123T



ITEM	PART #	DESCRIPTION	QTY.
1	USM7563	BASE ASS'Y RSA2024 SB RELEASE 2	1
2	USM0678	SET OF ROLLERS	1
3	USM0811	DRIVE BASE ASS'Y RH	1
4	USM0812	DRIVE BASE ASSY LH	1
5	USM6114	PNEUMATIC RELEASE 2	1

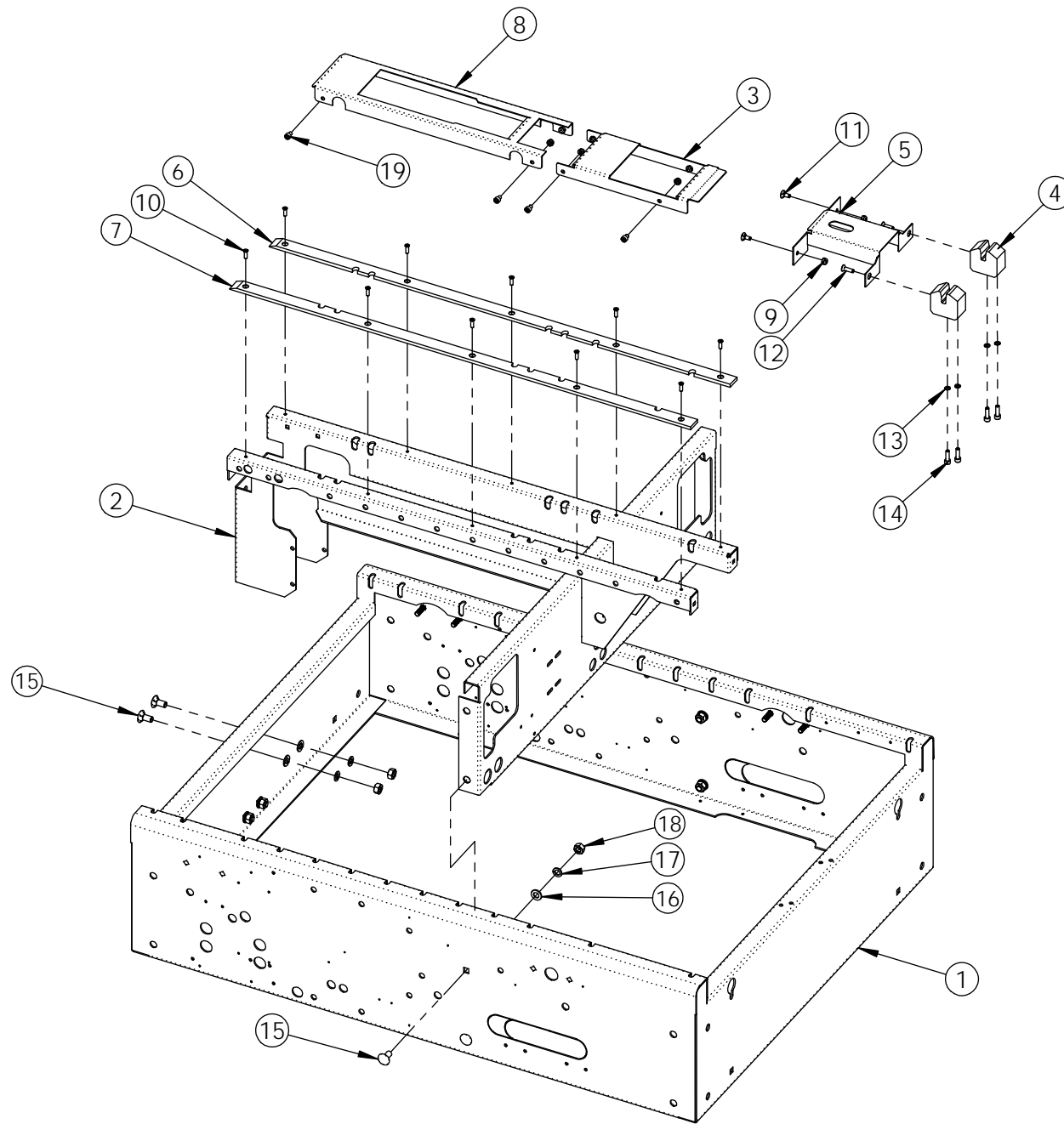
USM7563



USM7563

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UAM0298	BASE SUB-ASS'Y	1
2	USM1212	CENTRING MECHANISM	1
3	UAM0275	LEG ASSEMBLY METRIC	4
4	UAM0322	STOP START SWITCH ASS'Y	1
5	UPM3416	LIMIT SWITCH	1
6	USM8090	STOP GATE	1
7	UAM0318	INLET COVER ASSEMBLY	1
8	UPM0196	STRAIN RELIEF	1
9	USM0808	ELECTRIC ASSEMBLY	1
10	UPM0202	STR.RE3LIEF, NON-MET.LIQUIDTIGHT	1
11	UPM3579	DECAL COMPR. GUIDE 20 PSI	1
12	UPM4476	BALANCE 35 PSI	2
13	UPM4477	DECAL, LOWER 20 PSI	1
14	UPM4479	DECAL, OPENED 25 PSI	1
15	UPM4478	DECAL, DRIVE BASE	1
16	UPM3248EV	SENSOR SUPPORT	1
17	UPM0317	PHOTOELECTRIC SENSOR	1
18	UF6307	HEX NUT M5-0.8	4
19	UF6340	SS FW M5	2
20	UF5605	SHCS M5-0.8 x 45mm	4
21	UF1827	FW M5	4
22	UF7023	LW M5	4
23	UF7007	SS HEX NUT M5-0.8	2

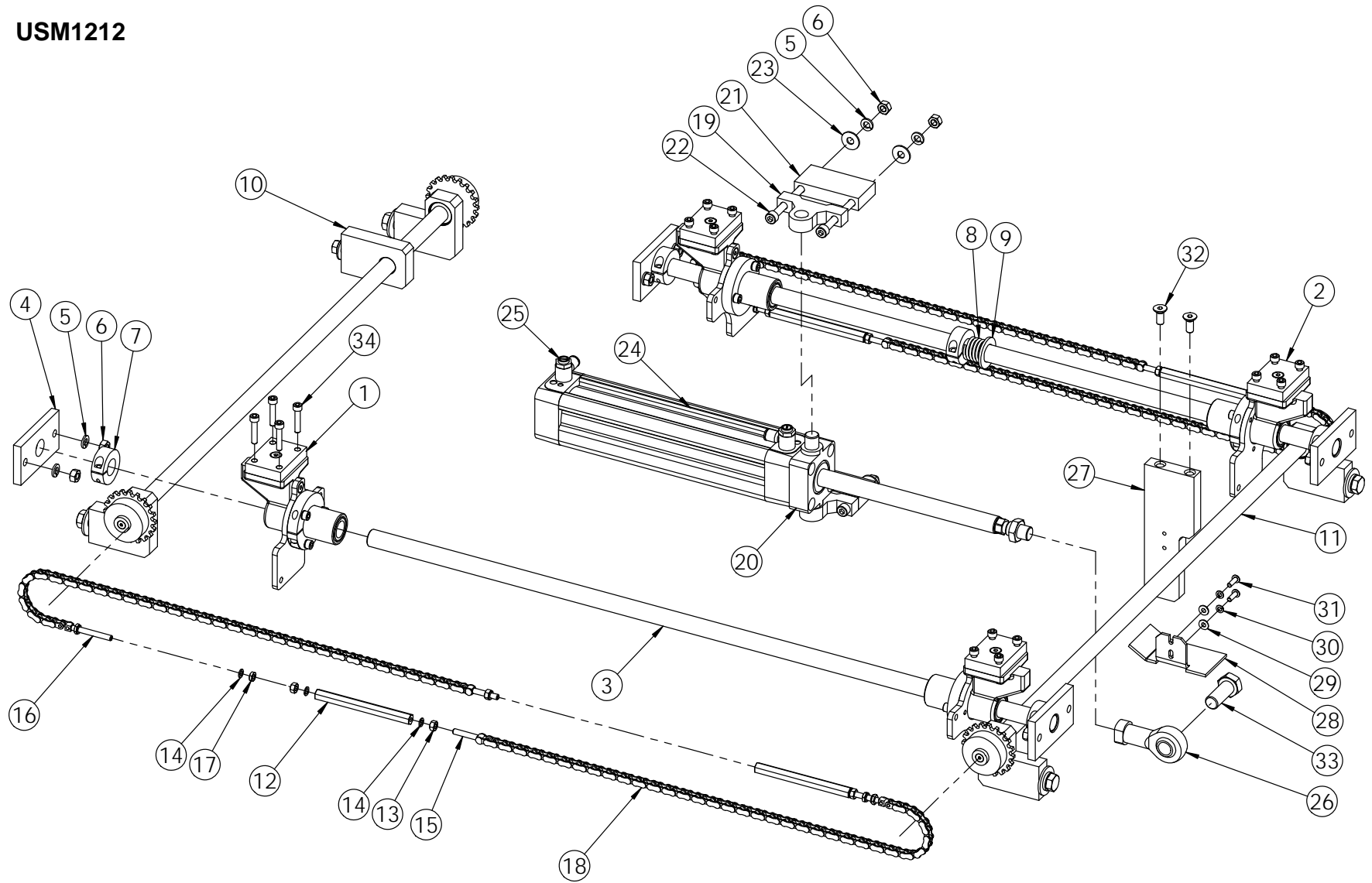
UAM0298



UAM0298

ITEM	PART #	DESCRIPTION	QTY.
1	UPM3287EV	OUTSIDE FRAME 2024 SB	1
2	UPM2522EV	TRANSVERSE BRACING	1
3	UPM3228	REAR GAP FILLER	1
4	UPM3234EV	OUTLET ROLLER BLOCK	2
5	UPM3233EV	OUTLET COVER	1
6	UPM0609EV	SLIDING PAD L.H.	1
7	UPM0606EV	SLIDING PAD R.H.	1
8	UPM3815	T.H. INSERT 2"	1
9	UF3391	SS NYLON LOCK NUT M6-1.0	10
10	UF4114	SELF TAPPING SCREW M5 X 16mm	10
11	UF 3713	CARRIAGE BOLT M6 - 1 x 12	2
12	UF5402	FHCS M6 - 1 x 20	2
13	UF6411	SS LW M6	4
14	UF3179	SS SHCS M6-1 X 20mm	4
15	UF4229	CARRIAGE BOLT M10-1.5 x 20	8
16	UF3680	FW M10	8
17	UF6371	L.W. M10	8
18	UF6314	HNR M10 x 1.5	8
19	UF3170	SS SHCS M6-1 x 8	8

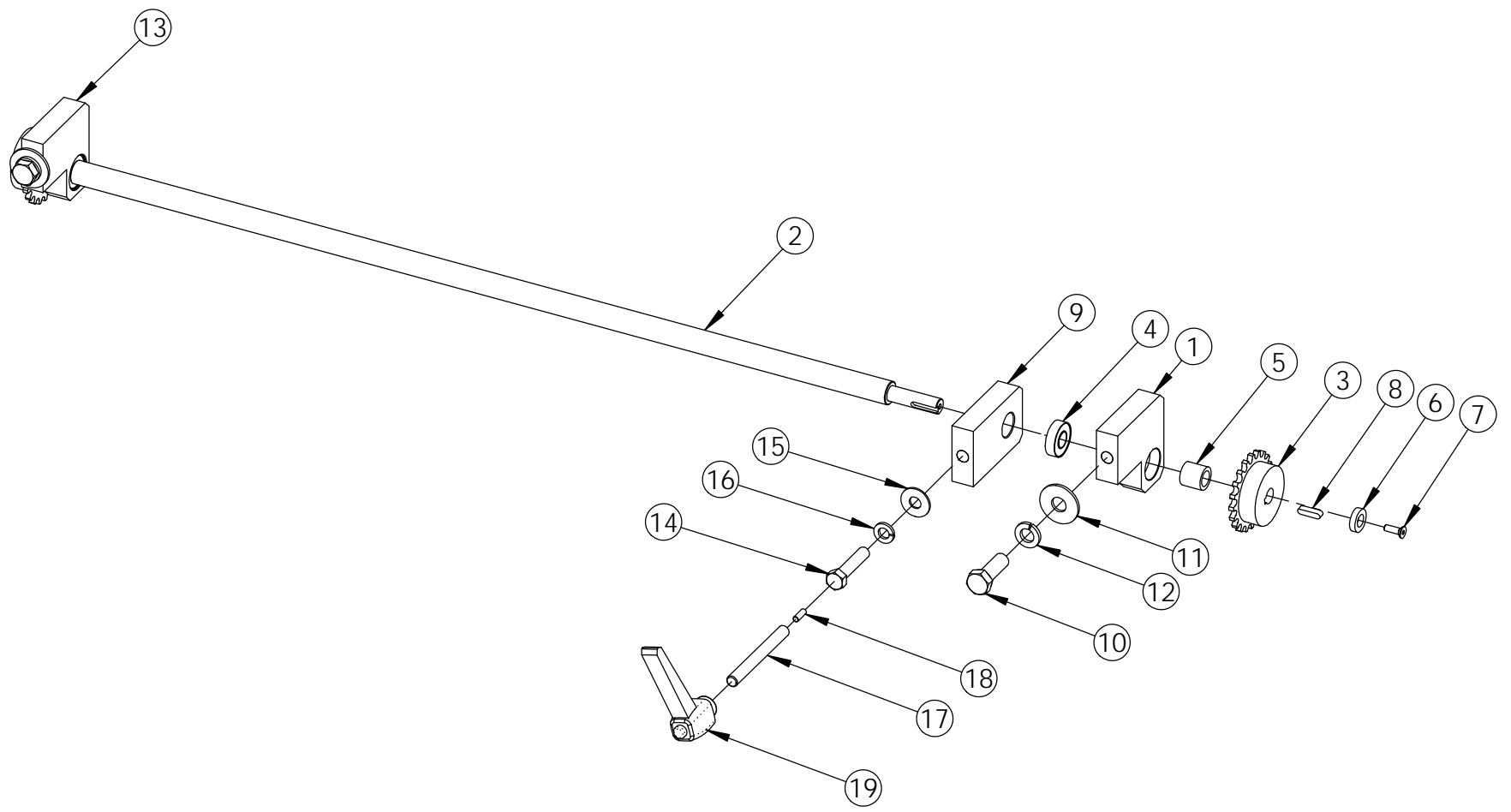
USM1212



USM1212

ITEM	PART #	DESCRIPTION	QTY.
1	UAM0301	DRIVE SUPPORT REAR SIDE RSA	2
2	UAM0302	DRIVE SUPPORT FRONT SIDE RSA	2
3	UPM3251	SHAFT 20mm	2
4	UPM3250	SHAFT ANCHOR PLATE	4
5	UF0867	LW M8	12
6	UF0866	HNR M8-1.25	12
7	UPM3330	COLLAR 20mm	5
8	UPM3401	SPRING FOR 20mm SHAFT, LC 112 M0	1
9	UF1824	FW ZINC 20mm	1
10	UAM0312	SPROCKET SHAFT	1
11	UAM0300	SPROCKET SHAFT	1
12	UPM3255EV	TURNBUCKLE	4
13	UF3638	SS HNR M6-1.0	8
14	UF6363	LW M6	16
15	UPM3259EV	CHAIN THREADED LINK L.H.	4
16	UPM3260EV	CHAIN THREADED LINK R.H.	4
17	UF3361	SS HEX JAM NUT 6mm	8
18	UPM3377	CHAIN 35 FOR RSA	4
19	UPM3299	BEARING BRACKET CR=16	2
20	UPM3295	PIVOT MOUNTING MT5/MT6	1
21	UPM3341	TRUNNION SPACER	2
22	UF6406	SHCS M8-1 X 75mm	4
23	UF1821	FW M8	4
24	UPM3298	CYLINDER 50 BORE x 220	1
25	UPM3132	FLOW CONTROL G 1/4 MALE X 8mm TUBE	2
26	UPM2884	BALL EYE ROD END M16	1
27	UPM3265EV	DRIVE BASE ANCHOR PLATE	1
28	UPM3249	LIMIT SWITCH BRACKET	1
29	UF1827	FW M5	2
30	UF7021	SS LW M5	2
31	UF3277	BHCS M5-0.8 X 16mm	2
32	UF1190	M8 - 1.25 x 20 FHCS	2
33	UF4305	HHCS M16-2.0 x 40mm	1
34	UF4236	SHCS M6-1 X 30mm	16

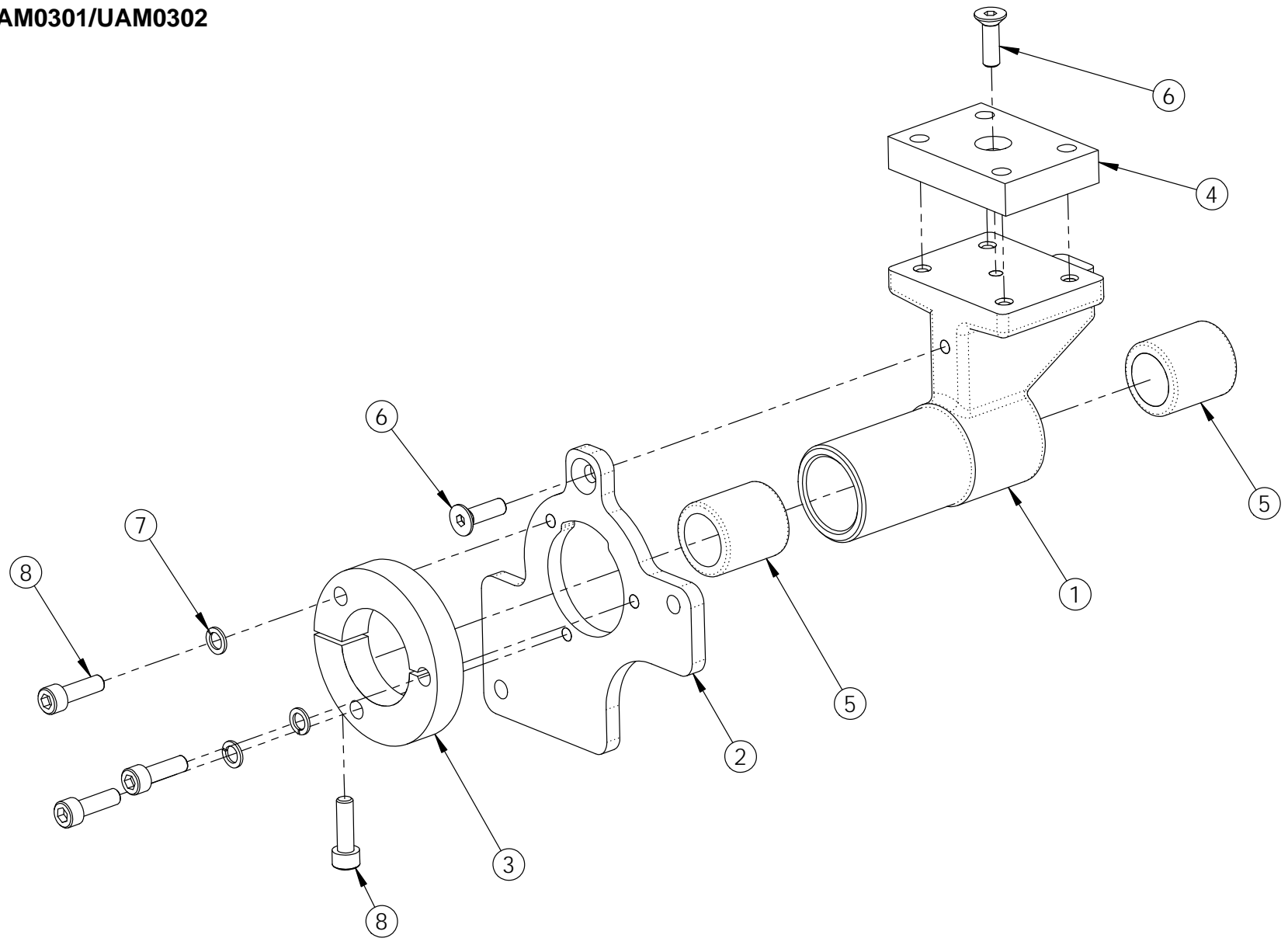
UAM0312/UAM0300



UAM0312/UAM0300

ITEM	PART #	DESCRIPTION	UAM0299/QTY.	UAM0300/QTY.	UAM0312/QTY.
1	UPM3275EV	SPROCKET SHAFT BEARING HOUSING L.H.	1	1	1
2	UPM3263EV	SPROCKET SHAFT	1	1	1
3	UPM0028	SPROCKET 35B20 1/2 KW 3/16 X 3/32	2	2	2
4	UPM1637	BEARING R8-2RS	2	2	2
5	UPM1646	SPROCKET SPACER (LONG)	2	2	2
6	UPM0150	SPROCKET SHAFT WASHER	2	2	2
7	UF5404	FHCS M5 - 0.8 x 16 mm	2	2	2
8	UF2210EV	SQUARE KEY ROUND ENDS 5 X 5 X 20	2	2	2
9	UPM3264	LOCKING DEVICE PLATE	1	-	1
10	UF3062	HHCS M12-1.75 x 25	2	2	2
11	UF4231	FW M12	2	2	2
12	UF4230	L.W. ZINC M12	2	2	2
13	UPM3262EV	SPROCKET SHAFT BEARING HOUSING R.H.	1	1	1
14	UF0240	HHCS 3/8-16 x 1.75	-	-	1
15	UF1720	REG F.W. ZINC 3/8	-	-	1
16	UF1770	L.W. ZINC 3/8	-	-	1
17	UF2142	THD ROD 3/8-16 X 3.5 LG W.HOLE	1	-	-
18	UPM0131	PIN STOP	1	-	-
19	UPM0037	HANDLE ADJUSTABLE (COLUMN)	1	-	-

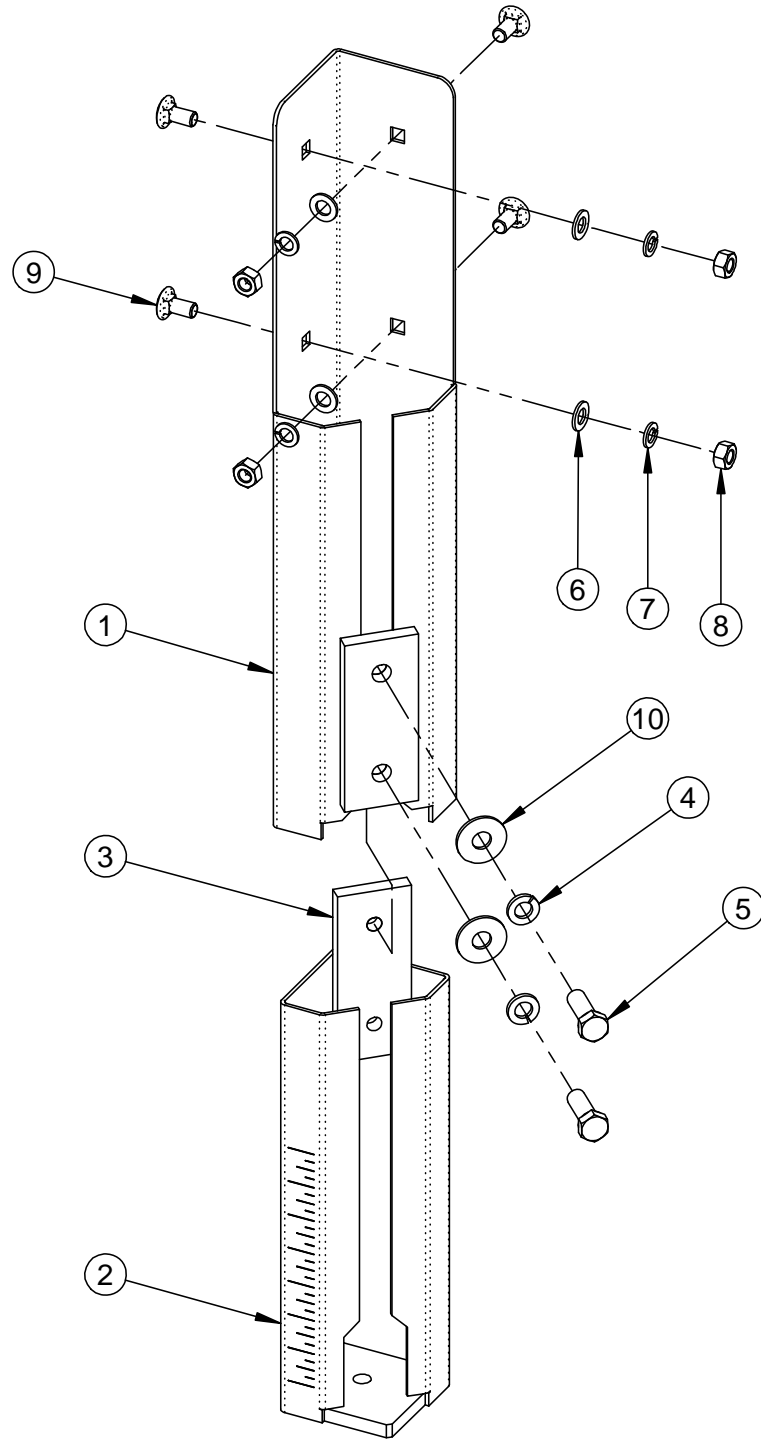
UAM0301/UAM0302



UAM0301/UAM0302

ITEM	PART #	DESCRIPTION	UAM0301/QTY.	UAM0302/QTY.
1	UPM3243EV	CASTING FOR DRIVE SUPPORT RSA LH	1	1
2	UPM3237EV	ANCHOR PLATE REAR SIDE	1	-
2	UPM3244EV	ANCHOR PLATE FRONT SIDE	-	1
3	UPM3266EV	SPLIT COLLAR FOR DRV SUPT RSA	1	1
4	UPM3242EV	DRIVE SUPPORT SPACER	1	1
5	UPM3303	LINEAR BEARING 20mm	2	2
6	UF5402	FHCS M6 - 1 x 20	2	2
7	UF6363	LW M6	3	3
8	UF0835	SHCS M6-1 X 20mm	4	4

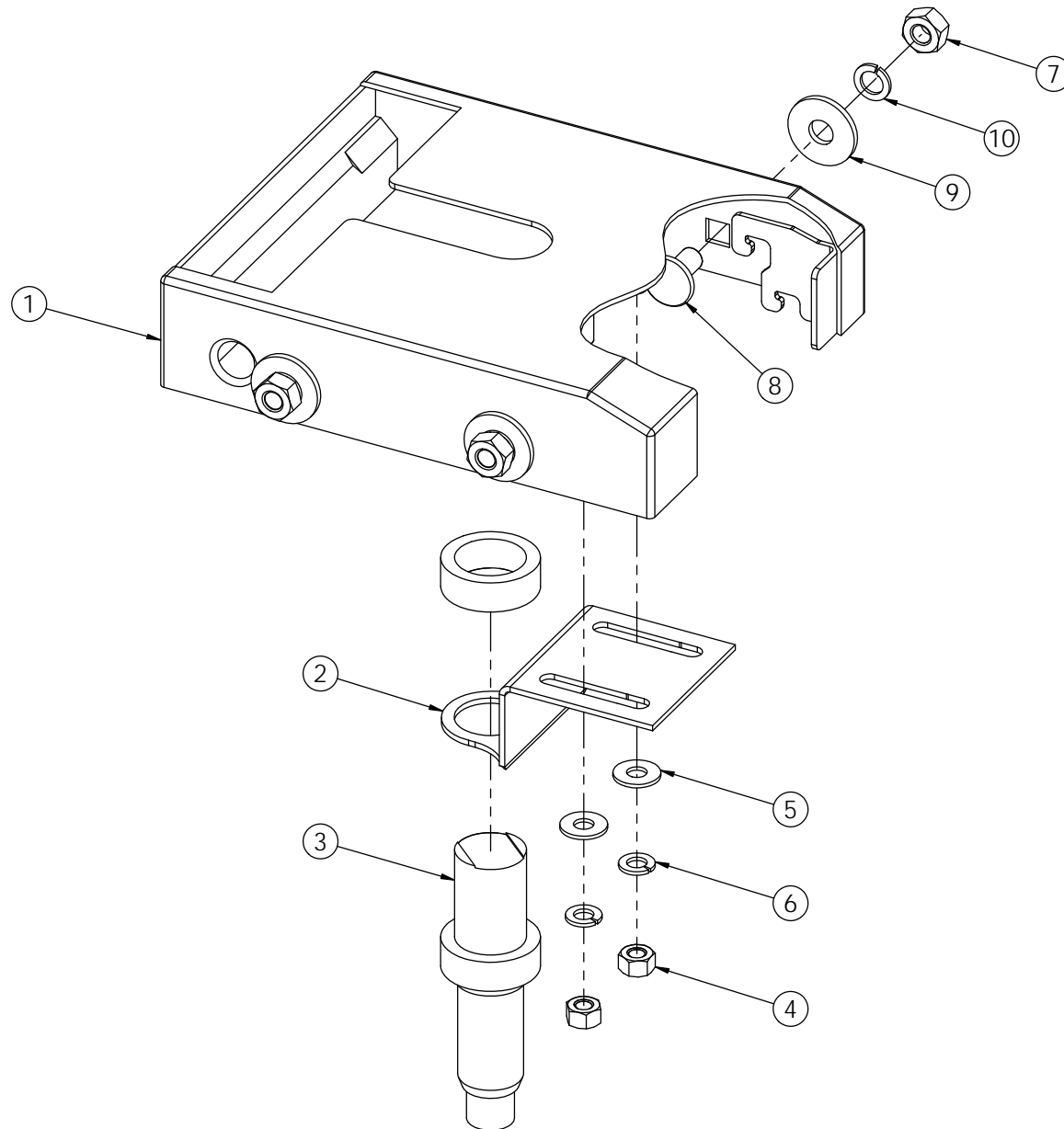
UAM0275



UAM0275

ITEM	PART #	DESCRIPTION	QTY.
1	UPM7640	LEG WELDMENT	1
2	UPM7641	LEG ADJUSTMENT	1
3	UPM7642	LEG FRICTION PLATE	1
4	UF4230	L.W. ZINC M12	2
5	UF6393	HHCSM12-1.75 x 35	2
6	UF3680	FW M10	4
7	UF6371	L.W. M10	4
8	UF6314	HNR M10 x 1.5	4
9	UF4229	CARRIAGE BOLT M10-1.5 x 20	4
10	UF4231	FW M12	2

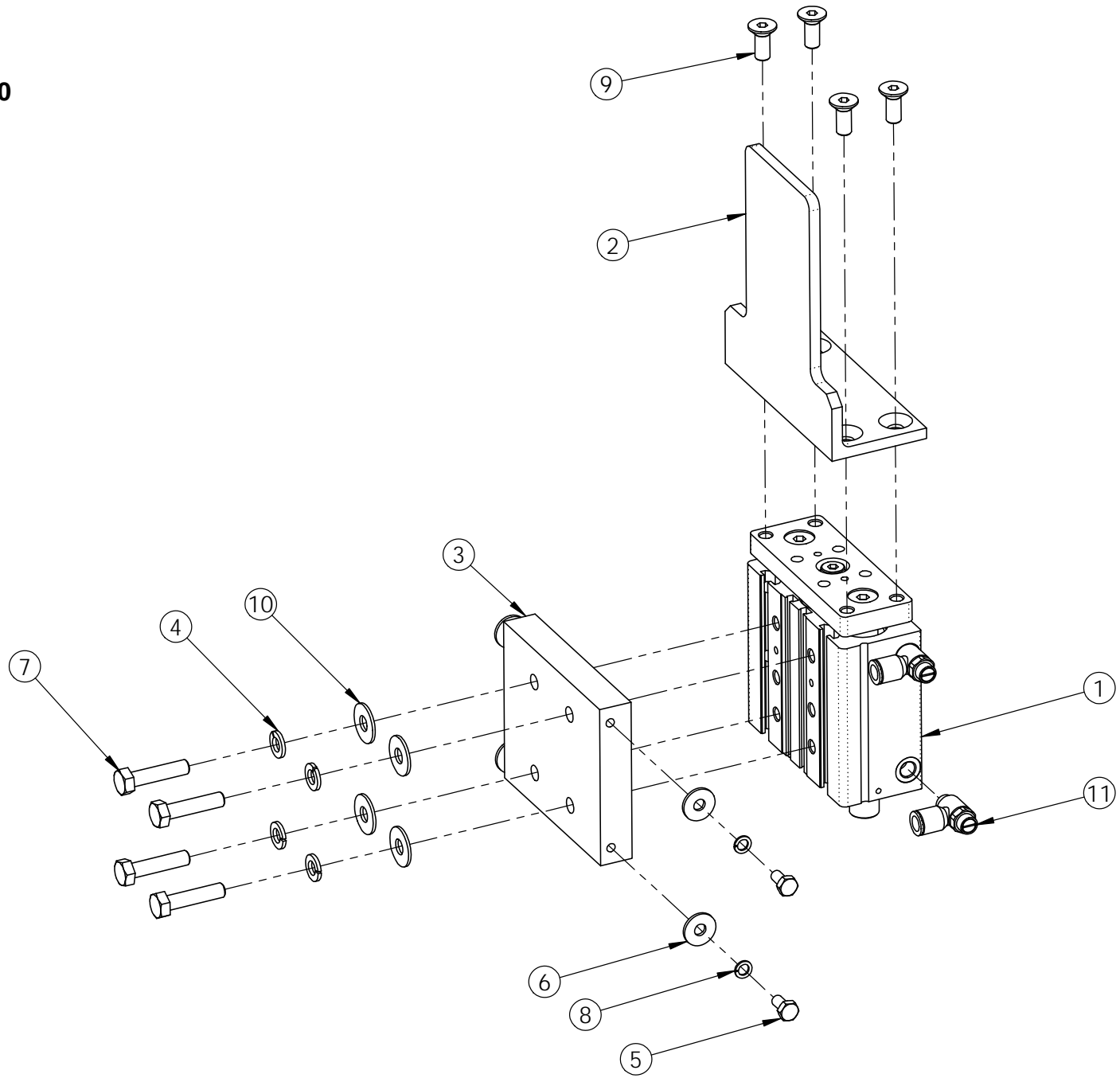
UAM0318



UAM0318

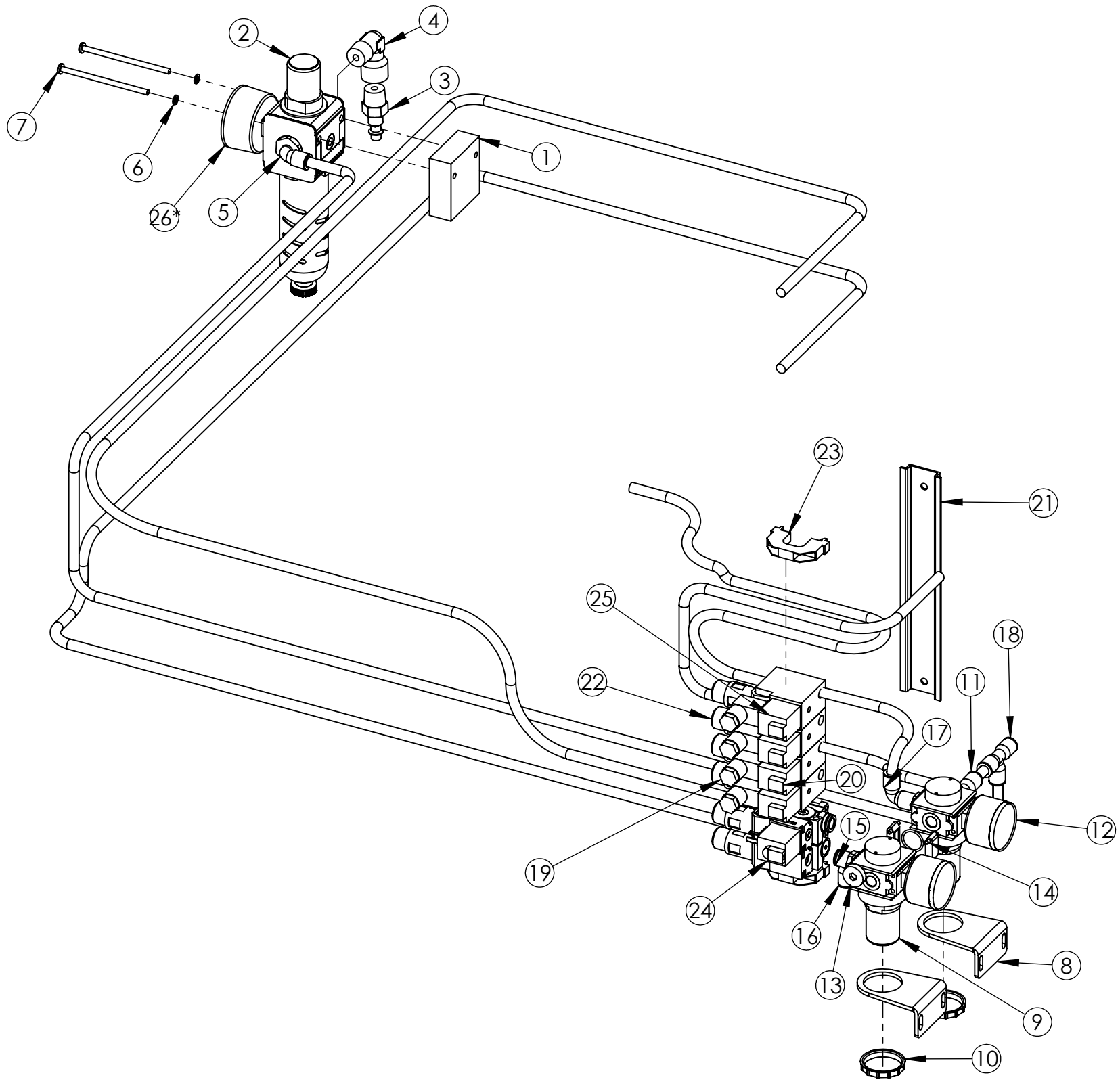
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM3231EV	INLET COVER WELDMENT	1
2	UPM3248EV	SENSOR SUPPORT	1
3	UPM0317	PHOTOELECTRIC SENSOR	1
4	UF7007	SS HEX NUT M5-0.8	2
5	UF6340	SS FW M5	2
6	UF7021	SS LW M5	2
7	UF3638	SS HNR M6-1.0	4
8	UF3745	SS CARRIAGE BOLT M6-1 x 12mm	4
9	UF6341	SS FW M6	4
10	UF6411	SS LW M6	4

USM8090



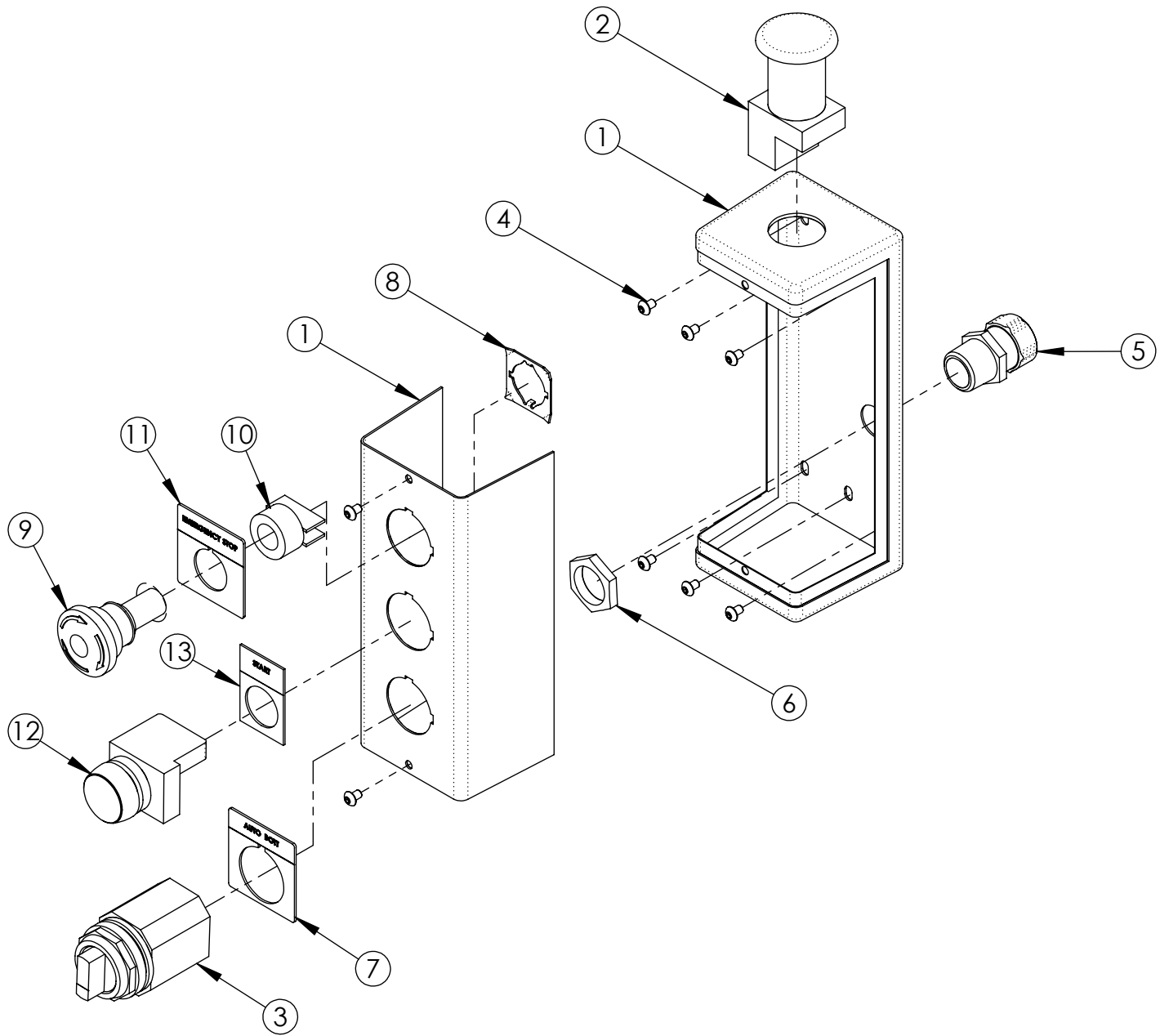
USM8090

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM3804	GPC GUIDE CYLINDER 32mm X 50mm	1
2	UPM7513	GATE FOR BOSCH GUIDED CYL	1
3	UPM7511	CYLINDER MNT PLT	1
4	UF0867	LW M8	4
5	UF6313	HHCS M6-1.0 X 12mm	4
6	UF1828	REG F.W. M6	4
7	UF3642	HHCS M8-1.25 X 35mm	4
8	UF6363	LW M6	4
9	UF1190	M8 - 1.25 x 20 FHCS	4
10	UF1821	FW M8	4
11	UPM3787	FLOW CONTROL VALVE G 1/8 male 8mm tube	2



ITEM	PART #	DESCRIPTION	QTY.
1	UPM3755	FILTER REG. MOUNTING BRKT.	1
2	UPM3267	FILTER REGULATOR G3/8	1
3	UPM0436	FTG Q.D. 3/8	1
4	UPM3175	BRASS ELBOW	1
5	UPM3179	ELBOW 3/8	1
6	UF1755	L.W. ZINC #8	2
7	UF2025	RH PH 8-32 X 3	2
8	UPM3271	MOUNTING BRACKET NL1	2
9	UPM3268	PRESSURE REGULATOR MANIFOLD	2
10	UPM3272	CONTROL PANEL NUT	2
11	UPM3139	FTG "T" 8mm TUBE G1/4	1
12	UPM3273	PRESSURE GAUGE G1/8	2
13	UPM3133	PLUG G1/4	1
14	UPM3270	BLOCK ASSEMBLY KIT	1
15	UPM3125	FTG. STR G1/4	1
16	UPM3124	ELBOW FTG.SWVL G1/4	1
17	UPM3194	ELBOW LVTH 1/4 MALE X 8mm TUBE	1
18	UPM3138	"T" FTG	1
19	UPM3392	ELECT. CONN WITH LED VALVE	4
20	UPM7782	3/2-NO INTERNAL PILOT VALVE	2
21	UPM0407	DIN RAIL	1
22	UPM3391	SILENCER VALVE	6
23	UPM0420	END ANCHOR	2
24	UPM7780	5/2 NC INTERNAL PILOT VALVE	1
25	UPM7781	3/2-NC INTERNAL PILOT VALVE	2
26*	UPM3654	Gauge (ONLY)	

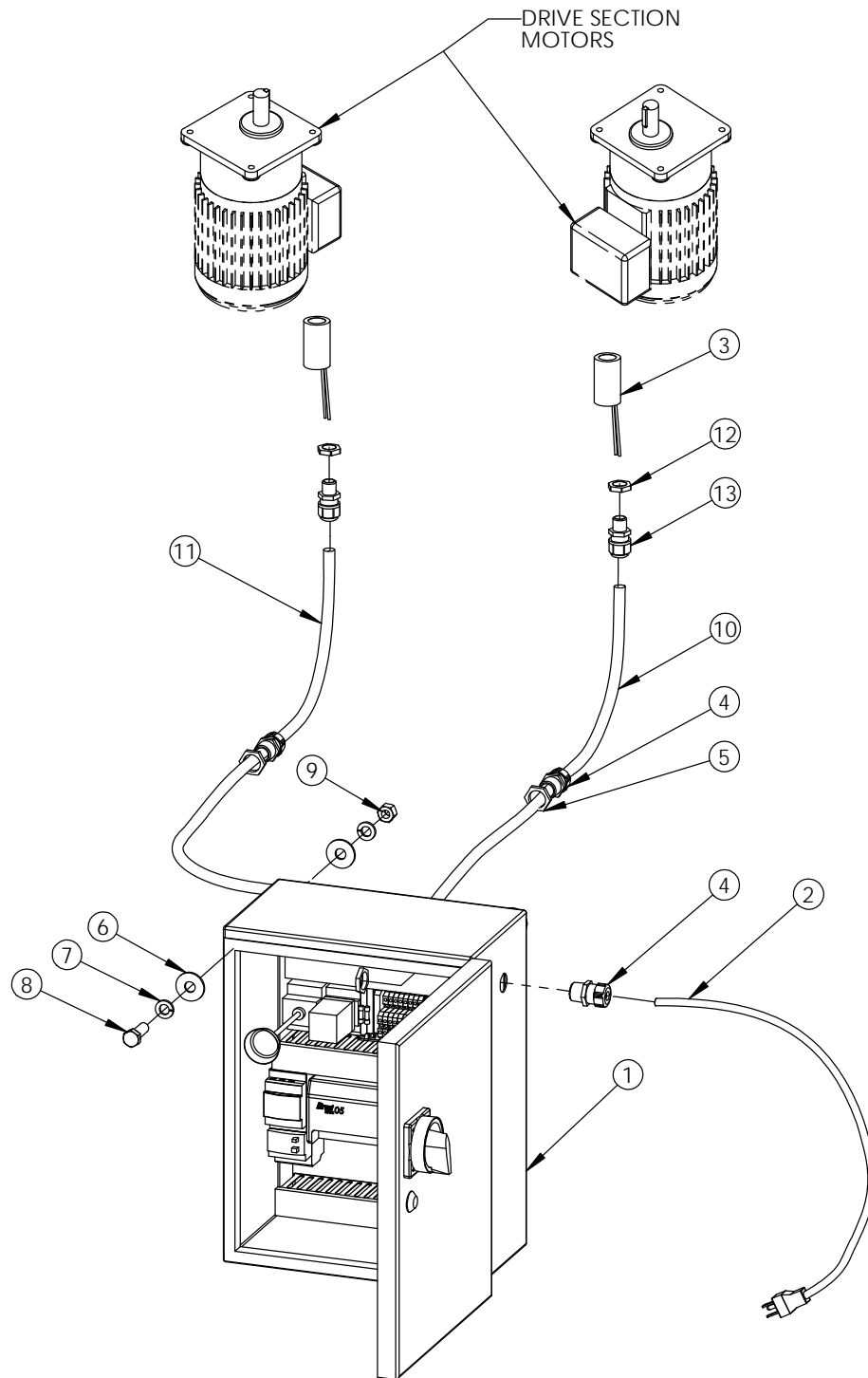
UAM0322



UAM0322

ITEM	PART #	DESCRIPTION	QTY
1	UPM1504EV	ELECTRIC SWITCH BOX	1
2	UPM4516	MUSHROOM BOTTOM SWITCH	1
3	UPM4517	SELECTOR SWITCH	1
4	UF7008	SS BHCS M4-07 x 6mm	6
5	UPM0197EV	STR.RELF METL.LIQDTGHT M20X1.5 (8-10mm)	1
6	UPM0341EV	LOCKNUT M20 X 1.5(FOR STRAIN RELF)	1
7	UPM4518	LEGEND PLATE "AUTO BOTT"	1
8	UPM6076	ANTI ROTATION WASHER	1
9	UPM4816	E-STOP BUTTON	1
10	UPM7630	LATCH	1
11	UPM4695	LEGEND PLATE "EMERG.STOP"	1
12	UPM4821	BUTTON GREEN 22mm 1 N.O.	1
13	UPM2210	LEGEND PLATE "START"	1

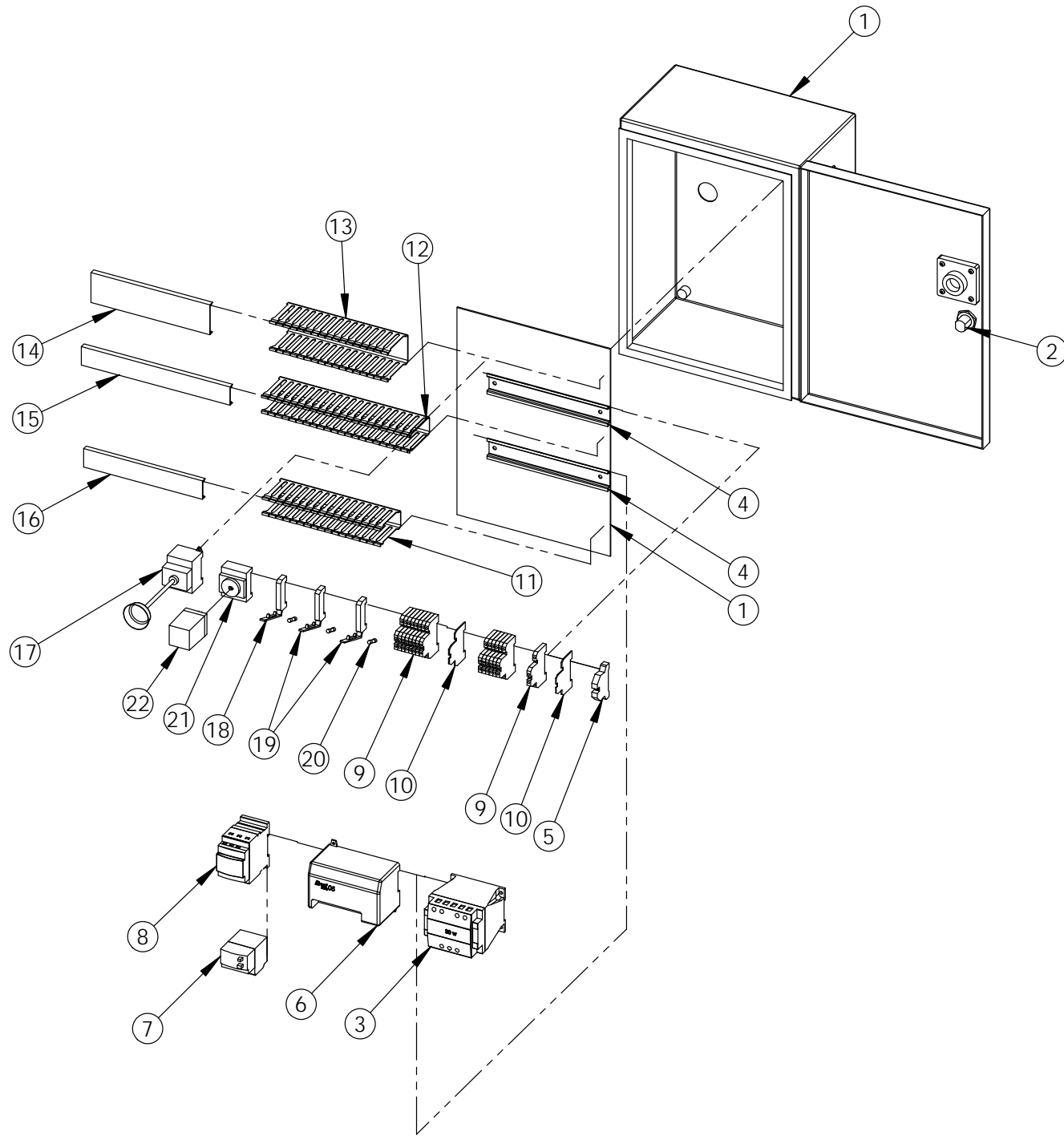
USM0808



USM0808

ITEM	PART #	DESCRIPTION	QTY.
1	UAM0295	ELECTRIC CONTROL BOX UA262024SB TW	1
2	UPM0209	POWER CORD, 14/3	1
3	UPM9719	CAPACITOR 16uF	2
4	UPM0197EV	STR.RELF METL.LIQDTGHT M20X1.5 (8-10mm)	3
5	UPM0341EV	LOCKNUT M20 X 1.5(FOR STRAIN RELF)	3
6	UF4231	FW M12	4
7	UF4230	L.W. ZINC M12	4
8	UF3062	HHCS M12-1.75 x 25	2
9	UF4234	HNR M12 x 1.75	2
10	UPM0225	CABLE 18/3 TYPE SJ	1
11	UPM0225	CABLE 18/3 TYPE SJ	1
12	UPM9728	LOCKNUT M16 X 1.5(FOR STRAIN RELF)	2
13	UPM9727	STR.RELF METL.LIQDTGHT M16X1.5 (8-10mm)	2

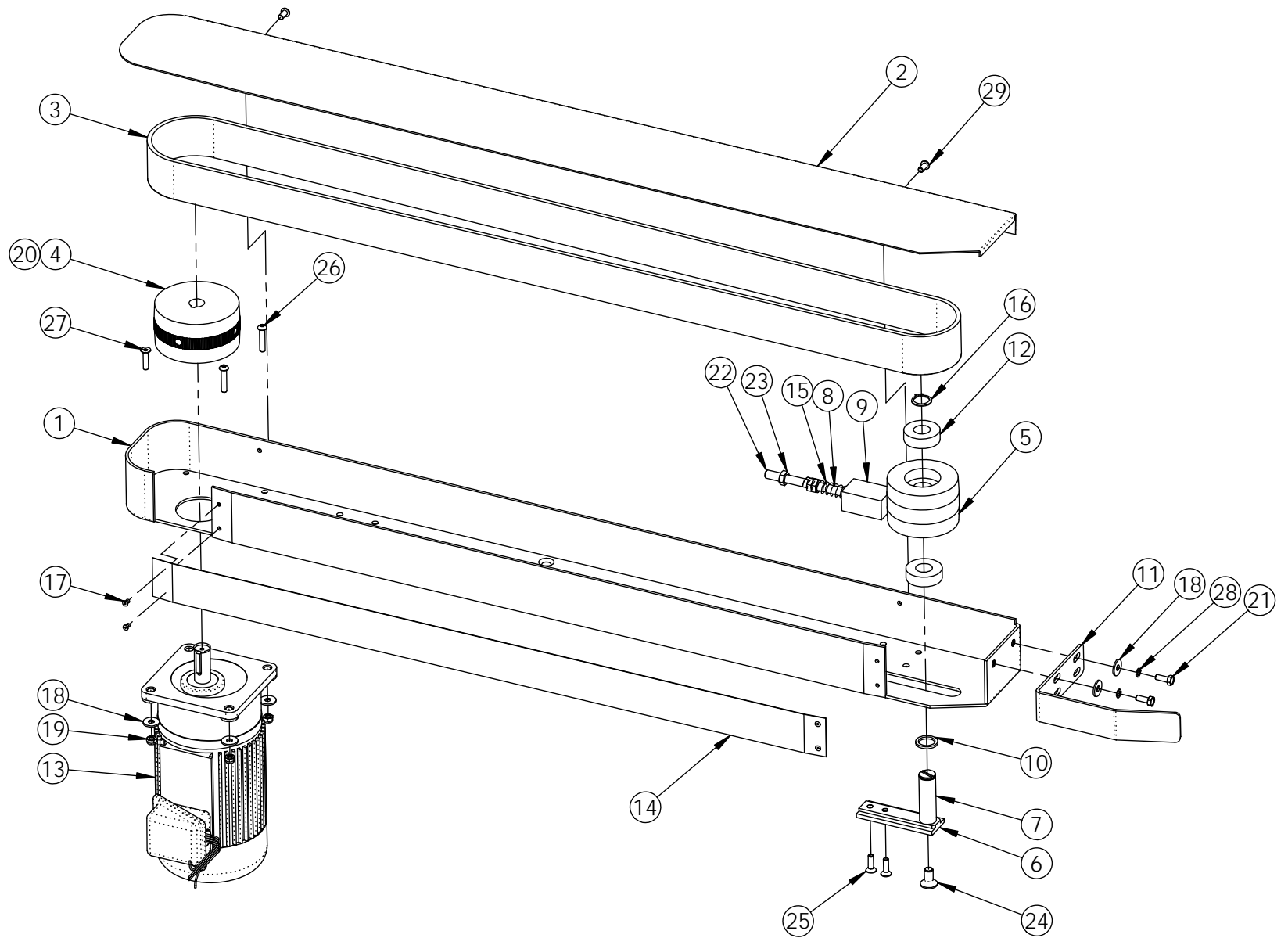
UAM0295



UAM0295

ITEM	PART #	DESCRIPTION	QTY.
1	UPM3418EV	BOX ELECT. 400mm X 305mm X 150mm	1
2	UPM4465	CAM LOCK	1
3	UPM4458	POWER SUPPLY IDEC 1.3 A	1
4	UPM0407	DIN RAIL	2
5	UPM7440	TB END ANCHOR FOR DN SER	1
6	UPM3833	PLC KOYO 8IN VDC 6 OUT RELAY	1
7	UPM4505	MOTOR O/L TELEMEC 7-10A	1
8	UPM7524	MOTOR STARTER TELEMEC 110VAC	1
9	UPM2880	TERMINAL BLOCK DOUBLE TW	15
10	UPM2881	TERMINAL BLOCK DOUBLE END CAP	2
11	UPM0226	WIRE WAY 30mm	1
12	UPM0226	WIRE WAY 30mm	1
13	UPM0254	WIRE WAY 50mm	1
14	UPM0255	COVER 50mm	1
15	UPM0177	COVER 30mm	1
16	UPM0177	COVER 30mm	1
17	UPM7211	ON / OFF SAF SWITCH CONT PANEL	1
18	UPM7428EV	FUSE TERMINAL BLOCK 5mm, WHITE LED	1
19	UPM4466	FUSE TERMINAL BLOCK 5mm, RED LED	2
20	UPM7120	FUSE 5mm X 20mm 1AMP/250V IEC	3
21	UPM9726	RELAY SOCKET	1
22	UPM4459	RELAY IDEC 24V 11 PINS	1

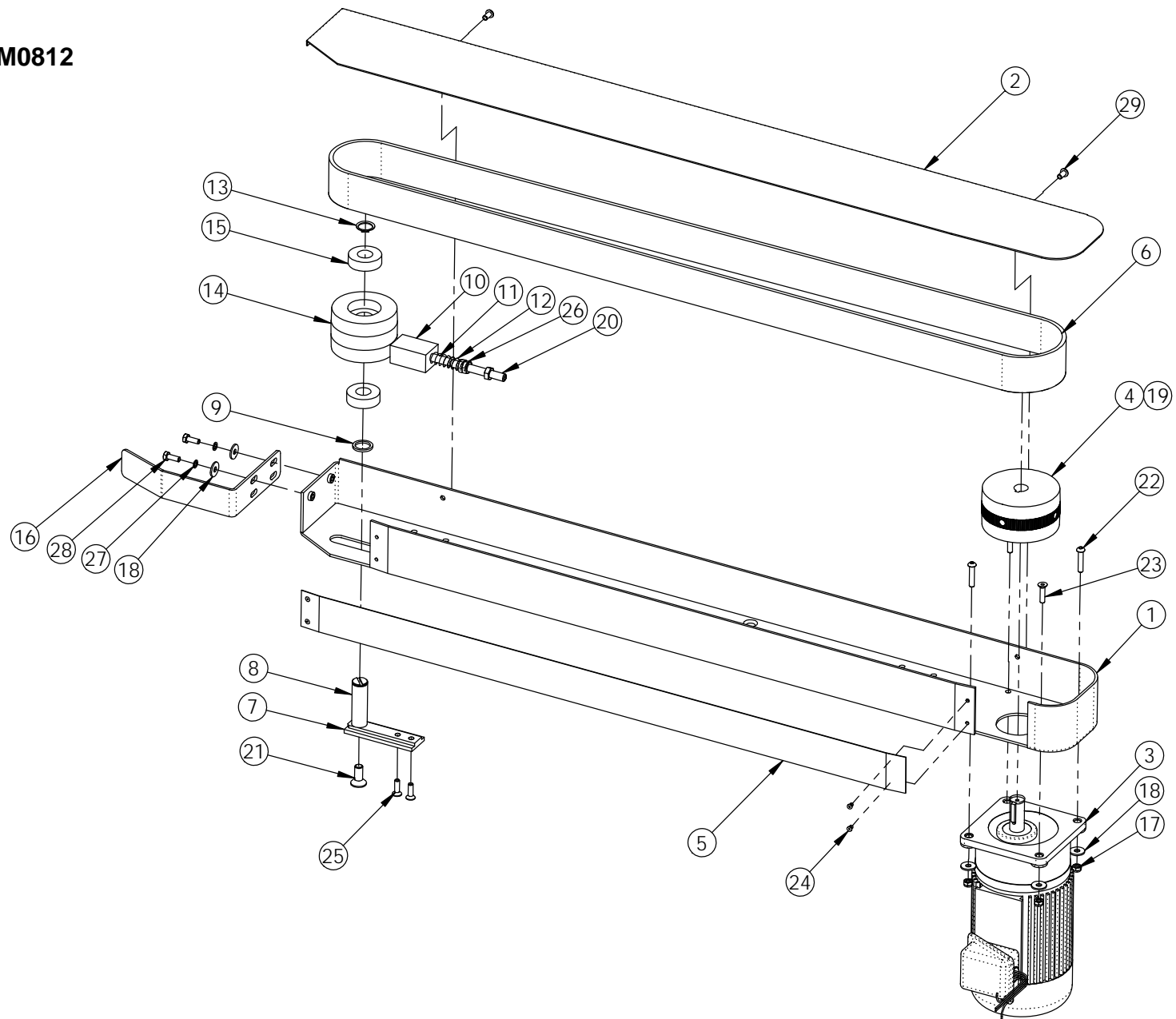
USM0811



USM0811

ITEM	PART #	DESCRIPTION	QTY.
1	UPM3282EV	DRIVE SECTION, RIGHT SIDE	1
2	UPM3280EV	DRIVE BASE COVER RIGHT SIDE	1
3	UPM0663	BELT ENDLESS 50 mm x 2120 mm	1
4	UPM0129EV	DRIVE PULLEY 50mm	1
5	SEE TABLE	IDLER PULLEY	1
6	UPM1879EV	TENSIONNER SLIDE	1
7	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
8	UPM0112	SPRING LOCATOR PIN	1
9	UPM0101EV	TENSIONNER SPRING HOLDER	1
10	UPM0109	IDLER PULLEY SPACER	1
11	UPM0647	CARTON RETAINER	1
12	UPM0324	BEARING, PULLEY	2
13	UPM7116	MOTOR T 1/3HP 21.4 : 1	1
14	UPM0029	STRIP UHMW 2" X .03"THK	1
15	UPM0038	DIE SPRING (DRIVE BASE)	1
16	UF2220	EXT RET'G RING 3/4 SHAFT	1
17	UF2080	POP RIVET S-44	4
18	UF1828	REG F.W. M6	6
19	UF5900	NYLON LOCK NUT M6-1.0	4
20	UF3683	SSS M6 X 10mm	2
21	UF0454	M6-1.0 X 16mm HHCS	2
22	UF1400	SSS HK 3/8-16 X 3	1
23	UF1610	HNJ 3/8-16	3
24	UF6397	FHCS M10-1.5 x 20	1
25	UF5402	FHCS M6 - 1 x 20	2
26	UF3711	BHCS M6-1 x 30	3
27	UF1194	FHCS M6 - 1 x 25 mm	1
28	UF6411	SS LW M6	2
29	UF3278	SS BHCS M6-1 x 12 mm	2

USM0812



USM0812

ITEM	PART #	DESCRIPTION	QTY.
1	UPM3283EV	DRIVE BASE LEFT SIDE	1
2	UPM3281EV	DRIVE BASE COVER LH	1
3	UPM7116	MOTOR T 1/3HP 21.4 : 1	1
4	UPM0129EV	DRIVE PULLEY 50mm	1
5	UPM0029	STRIP UHMW 2" X .03"THK	1
6	UPM0663	BELT ENDLESS 50 mm x 2120 mm	1
7	UPM1879EV	TENSIONNER SLIDE	1
8	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
9	UPM0109	IDLER PULLEY SPACER	1
10	UPM0101EV	TENSIONNER SPRING HOLDER	1
11	UPM0112	SPRING LOCATOR PIN	1
12	UPM0038	DIE SPRING (DRIVE BASE)	1
13	UF2220	EXT RET'G RING 3/4 SHAFT	1
14	UPM0259	IDLER PULLEY	1
15	UPM0324	BEARING, PULLEY	2
16	UPM0647	CARTON RETAINER	1
17	UF5900	NYLON LOCK NUT M6-1.0	4
18	UF1828	REG F.W. M6	6
19	UF3683	SSS M6 X 10mm	2
20	UF1400	SSS HK 3/8-16 X 3	1
21	UF1191	FHCS M10-1.5 x 25	1
22	UF3711	BHCS M6-1 x 30	3
23	UF1194	FHCS M6 - 1 x 25 mm	1
24	UF2080	POP RIVET S-44	4
25	UF5402	FHCS M6 - 1 x 20	2
26	UF1610	HNJ 3/8-16	3
27	UF6411	SS LW M6	2
28	UF0454	M6-1.0 X 16mm HHCS	2
29	UF3278	SS BHCS M6-1 x 12 mm	2

