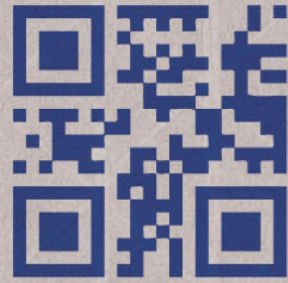




USER MANUAL RSA 3023-WAT HS



For Serial Numbers:
TM913 XX X XXX
110v System



www.itape.com
800-474-8273

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group[®]



USER NOTES

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TECHNICAL ASSISTANCE

This is the Interpack Model **AUTO H2O Random Semi-Automatic-WAT-EU (RSA 3023-WAT-SBHS)** 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 3023-WAT HS

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 RSA 3023-WAT-HS Case Sealer is designed to apply Intertape brand water-activated tape to the top and bottom center seam of regular slotted corrugated cartons. The RSA 3023-WAT-HS Case Sealer automatically adjusts to a random variety of case sizes. The RSA 3023-WAT-HS. Case Sealer features an enclosure for added safety and reversible operator controls to facilitate its adaptation into an existing conveyor line.



Figure 1: RSA 3023-WAT HS

Definitions

Common terms that will be used throughout this manual.

Tape Head – This will refer to the WAT Tape Heads 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 3023-WAT HS 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 top and/or bottom tape head in the event any failure or malfunction causes the machine to stop production. This is to help reduce any possible downtime.

Can be installed on site

Description	Item Number	Quantity Per Machine
Feed Table .4M (16")	UM894T	1
Feed Table .6M (24")	UM998T	1
Feed Table .9M (36")	UM898T	1
Casters	UM708	1 set of 6 (36" Feed Table will require 2 additional casters)

IMPORTANT SAFEGUARDS

There are a number of safety labels used on the RSA 3023-WAT-HS Case Sealer. These labels are placed at different locations on the machine to warn operators and service personnel of possible dangers (refer to Figure 3). 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 DESCRIPTIONS

<p>The label shown is affixed to the upper tape head assembly on both sides of the machine.</p> <p>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>Figure 4: Blade Hazard</p>
<p>The label shown is affixed to the upper tape head assembly on either side of the machine.</p> <p>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>Figure 5: Sharp Hazard</p>
<p>The label shown is affixed to the bridge above the vertical intake.</p> <p>It warns the operator of potential pinch points between the top and bottom of the case. Keep hands away from this area when processing a case.</p>	 <p>Figure 6: Pinch Point</p>
<p>The label shown is located on the in-feed and exit ends of the machine belt drives.</p> <p>The label warns the operators and service personnel of the pinch points at each end of the belt drives.</p>	 <p>Figure 7: Drive Base Hazard</p>
<p>The label shown is affixed to the electrical control box.</p> <p>The label advises service personnel to connect the machine to a properly grounded outlet.</p>	 <p>Figure 8: Hazardous Voltage</p>

SAFETY LABEL DESCRIPTIONS CONTINUED

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 9: Ground Connection

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.






Figure 10: 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 11: 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 12: 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 13: 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 14: 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(s)
 - 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

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 3023-WAT HS Dimensions

Machine Weight: 1422 lbs. (645kg)

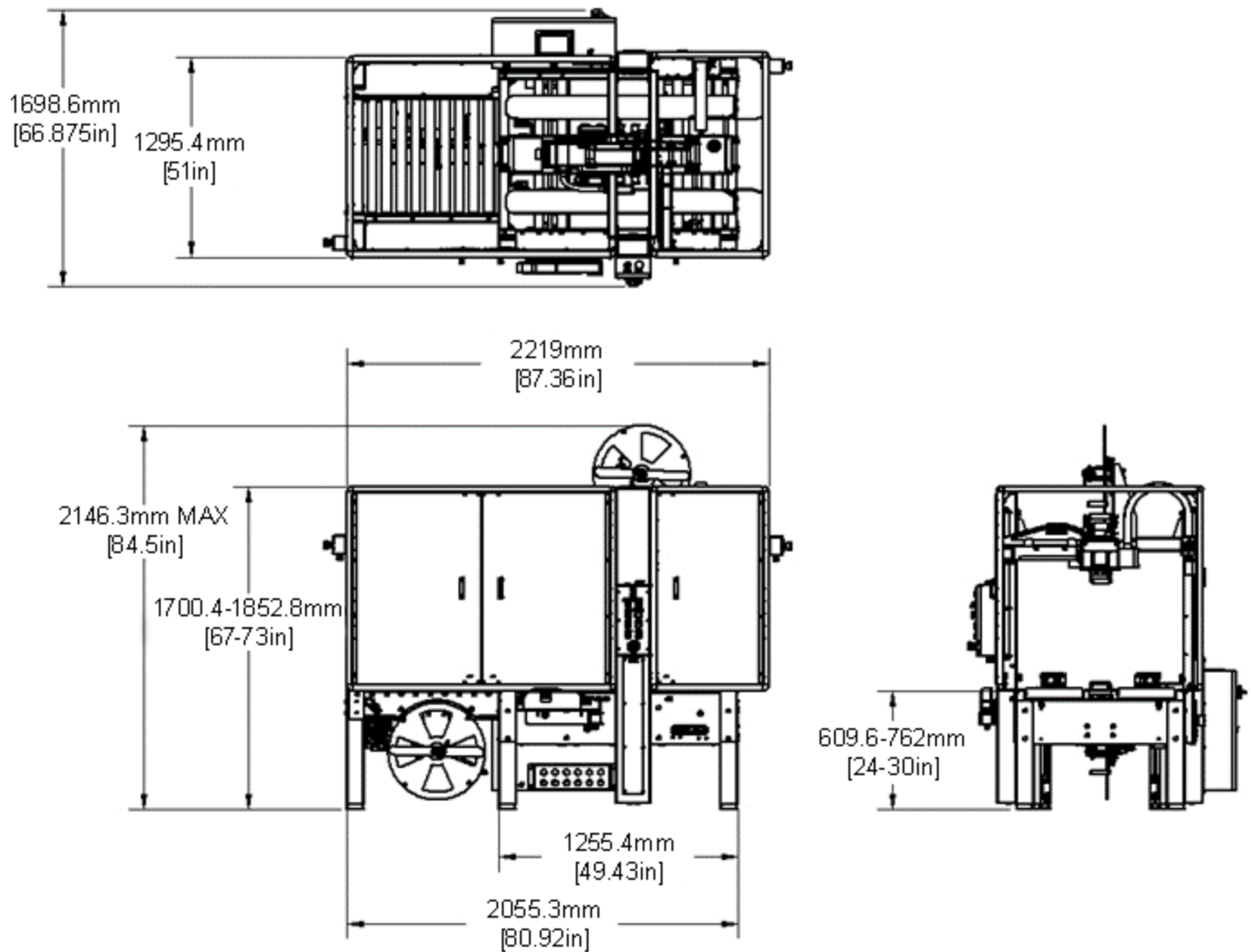


Figure 15: Machine Dimensions

SPECIFICATIONS

Machine Components

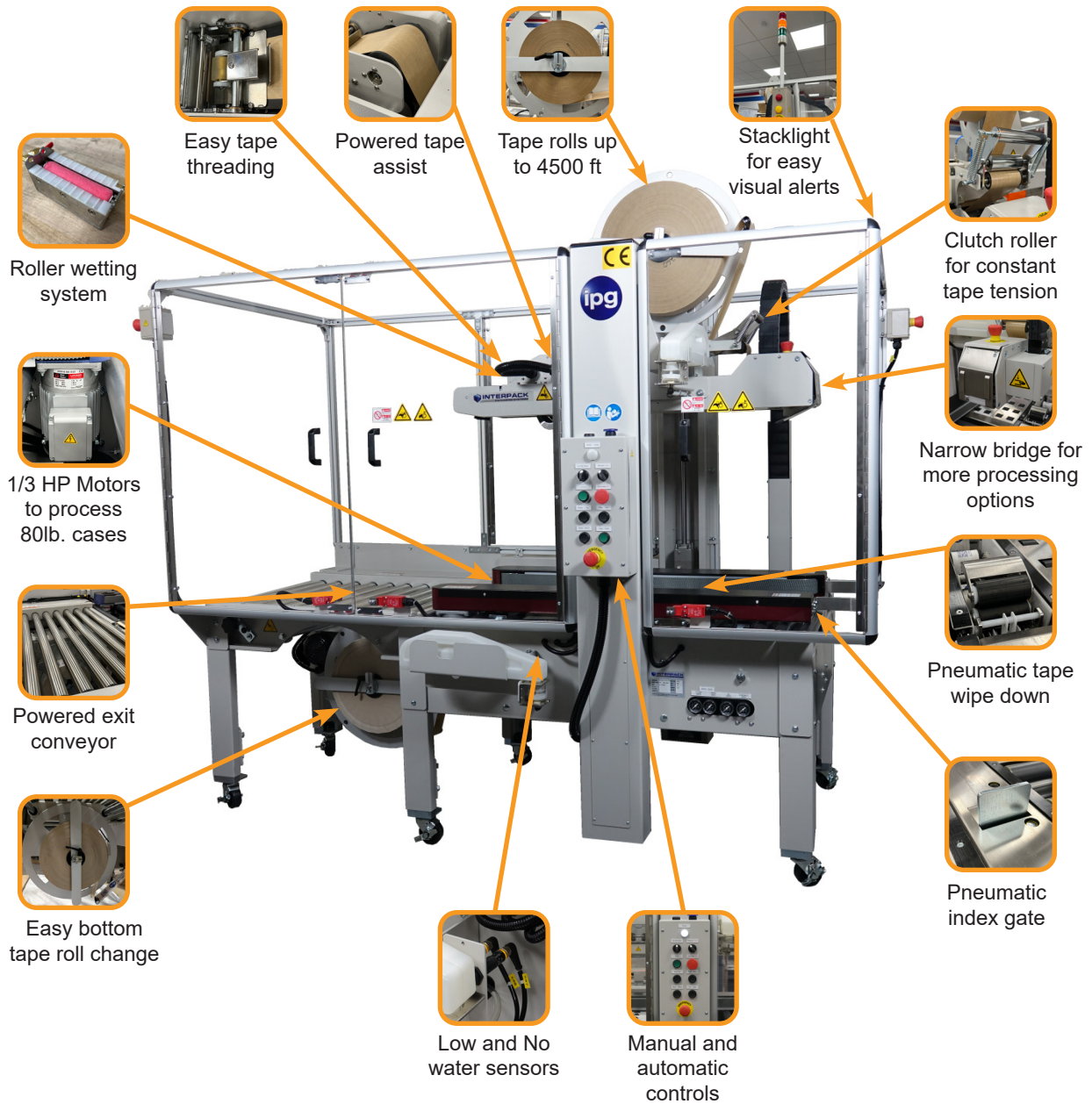


Figure 16: Machine Components

SPECIFICATIONS

Power Requirements

Electrical: **110v, 60HZ, 15A (1650 Watts)**

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

The electrical box contains an HMI for machine adjustments. The control box contains the **Clear** button, **Power Lamp**, a **Manual/Auto** switch, a **Tape Threading/Stop** button, a **Tape Cut** button, a **Tape Feed** button, an **Emergency Stop** switch, a **Head Down** button, a **Head Up** button, a **Start** button, a **Top/Both/Bottom** selector switch and a **Reset** button.

A 12 ft. (3.6 m) 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: 9CFM at 90 PSI (28.3 Liter/min at 620.5 kPa)

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

Belt speed is variable between 50-160 ft./min with a Pass-Through Mode of up to 240 ft./min. Actual production rate is dependent on operator's dexterity and the case size mix. Boxes must be separated by 14 in. (355mm).

Tape Specifications

Use only **IPG Water-Activated Tape**. The machine can accommodate tape widths of 3 in. (70 - 75mm).

A maximum tape roll length of 4500 ft. (1371.6m) can be installed on the tape heads. This machine can accommodate all Intertape brand, water-activated tape within listed specifications.

The standard tape leg length of 3 in. (75mm) 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 via the HMI on the electrical box. The minimum tape leg length recommended is 2 in. (48mm) and the maximum recommended is 3 in. (75mm).

Operating Conditions

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C) with clean dry cartons. Maximum sound pressure level is less than 70dBA.



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



CAUTION: TO PREVENT INJURY KEEP AN AREA WITH A MINIMUM OF 36 IN. (915MM) OF SPACE CLEAR, CLEAN, AND DRY ON THE OPERATOR AND CONTROL BOX SIDES OF THE MACHINE.

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 38.5 kg (0 to 85 lbs.) Max

Size

Carton Size	Length	Width	Height
Minimum	7 in. (127mm)	7 in. (127mm)	3 in. (77mm)
Maximum	Infinite	30 in. (762mm)	23 in. (584mm)

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 3023-WAT HS 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. An Authorized IPG Representative must be present when removing the machine from the pallet.

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, the machine must be properly supported.
 - 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

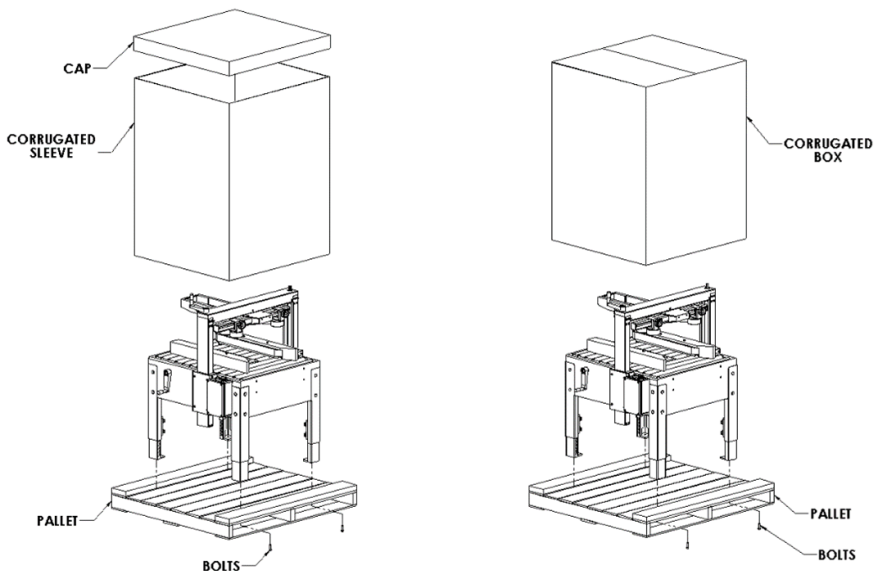


Figure 17: Unboxing

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 in. to 28 in. 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. The machine must be properly supported prior to any leg adjustment.

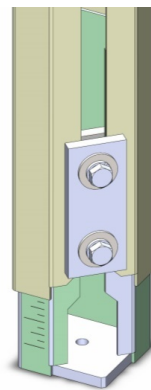


Figure 18: Leg Adjustment

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 1 in./yard 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. MACHINE MUST BE PROPERLY SUPPORTED PRIOR TO CASTER INSTALLATION

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.

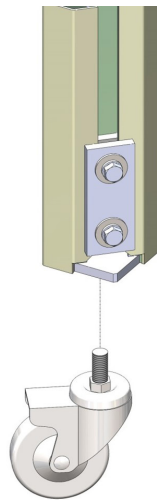


Figure 19: Caster Installation

SET-UP PROCEDURE

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

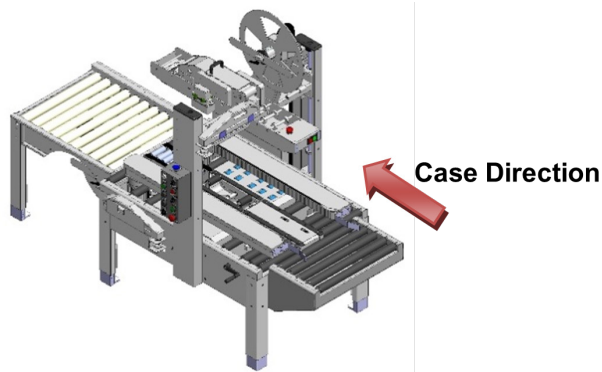


Figure 20: Case Direction

IPG Case Sealers come with the necessary mounting points for in-feed tables. The optional in-feed/out-feed tables will come with all necessary hardware to mount to the machine. The WAT case sealers can only accept one (1) table on the in-feed side of the machine.

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

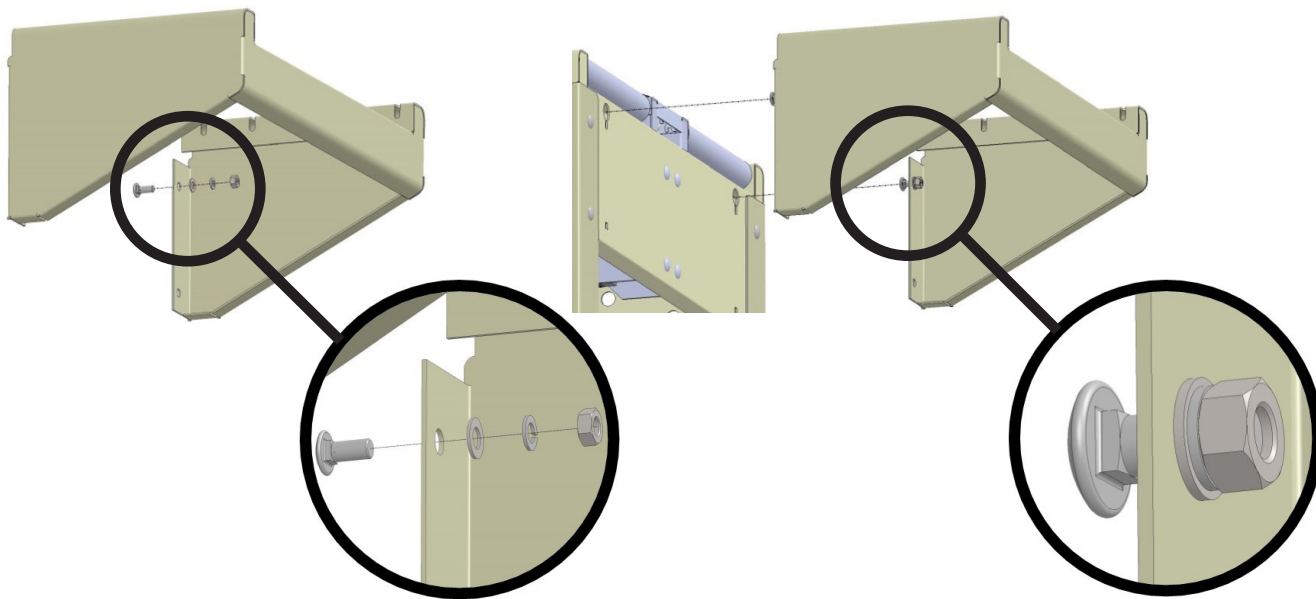


Figure 21: Carriage Bolt Assembly

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.

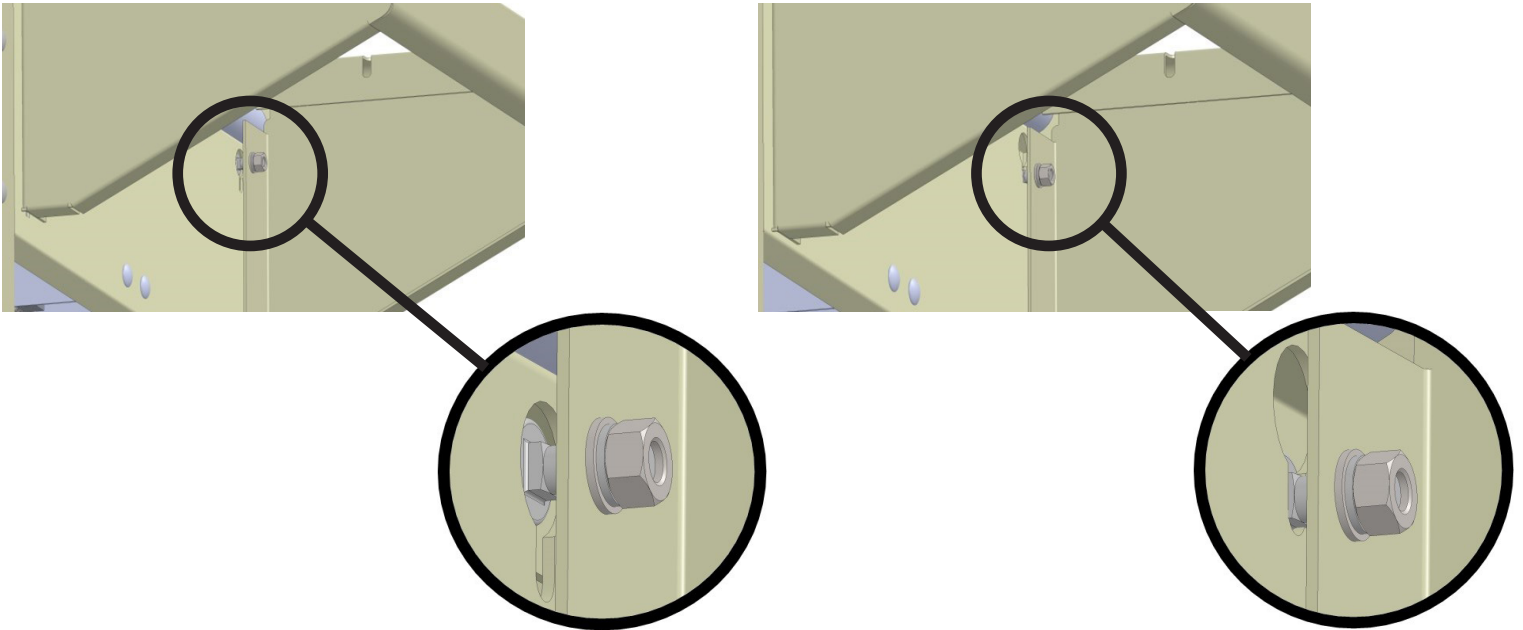


Figure 22: Table to Machine Base Installation

- 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.

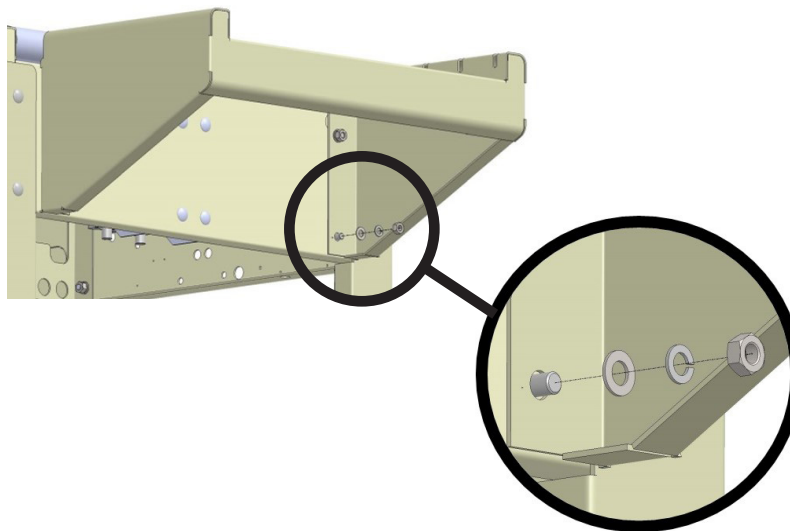


Figure 23: Remaining Carriage Bolt Installation

- 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 1 in./yard 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.

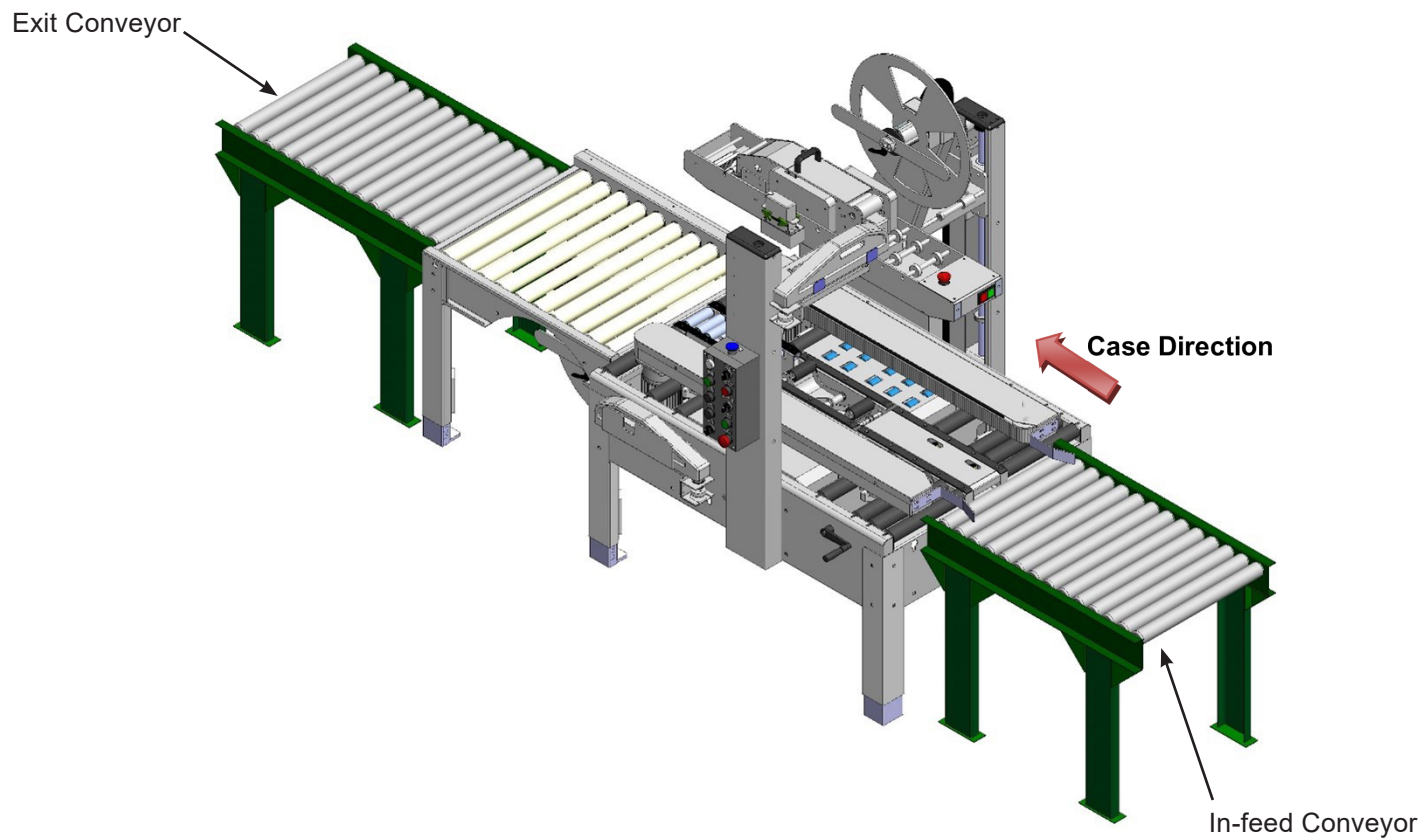


Figure 24: Installing In-Feed and Exit Conveyors

CONNECTING UTILITIES

Electrical Utilities

A 12 ft. (3.6m) 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 3023-WAT-SBHS Case Sealer. It contains an HMI that can be used to adjust machine operation settings as needed.

The control box contains a Start button, the Emergency Stop switch, a Manual/Auto switch, a Tape Feed/Cut button, a Head Up button, a Head Down button, a Tape Threading/Stop button, a Tape Base In/Out button, a Clear button, and a Top/Both/Bottom selector switch.

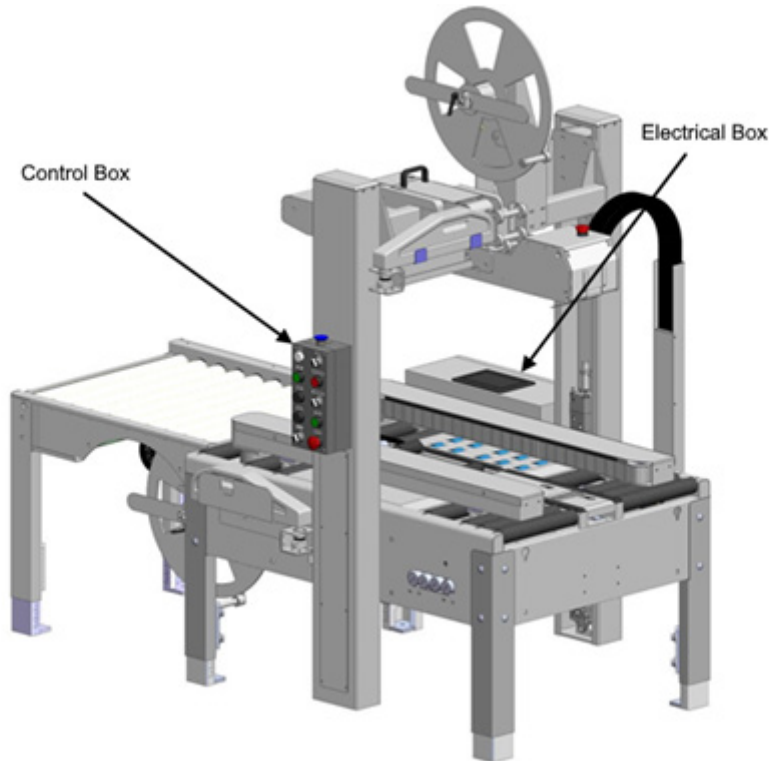


Figure 25: Electrical Utilities

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 3023-WAT-SBHS Case Sealer requires a minimum of 9 CFM at 90 PSI (28.3 Liter/min at 689 kPa).

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 90 PSI, push back down on the button until a “click” is felt to lock it in position. The thread size is 3/8 in 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 26: Main Air Regulator

The pressure regulators in control various operations of the machine. The regulators on the left labeled “**OPEN**” and “**CLOSE**” control the pressure for the drive bases. The recommended pressure settings for the “**OPEN**” and “**CLOSE**” regulators is **30 PSI**. The third regulator from the left labeled “**UP**” controls the pressure for the top tape head box rising. The recommended pressure setting for the “**UP**” regulator is **65 PSI**. The regulator on the right labeled “**DOWNWARD**” controls the pressure of top tape head box descent. The recommended pressure setting for the “**DOWNWARD**” regulator is **35 PSI**.



Figure 27: Sub-Regulators

OPERATOR CONTROL BOX

Make sure machine is connected to air supply of at least 100 PSI (689.5 kPa) and machine regulator is set at 90 PSI. The following describes the use of control box buttons:

- 1. Reset button** - Used to reset machine after power up or to reset after all E-Stops have been cleared and doors closed.
- 2. Clear button** (Operational in Auto Mode only). This button is used to simplify clearing a jam during production. When pressed down, belt drive motors stop, air supply is removed from tape head, and cutting mechanism is engaged.
- 3. Power Lamp** - Electricity is being delivered throughout the machine.
- 4. Manual/Auto switch**
 - Auto mode is for machine operation.
 - Manual mode is for tape threading/troubleshooting.
- 5. Tape Threading/Stop button**
 - On Auto Mode, stops machine operation.
 - On Manual Mode, engages/disengages pinch roller which drives the tape.
- 6. Tape Cut button**
 - No function on Auto Mode.
 - On Manual Mode, engages cutting mechanism in tape head to cut tape.
- 7. Tape Feed button**
 - No function on Auto Mode.
 - On Manual Mode, feeds a length of tape and cuts it.
- 8. EMERGENCY Stop button**
 - On Auto Mode, de-energizes machine.
 - On Manual Mode, de-energizes machine.
- 9. Head Down button**
 - No function on Auto mode.
 - On Manual mode, lowers upper head assembly.
- 10. Head Up button**
 - No function on Auto mode.
 - On Manual mode, moves bridge assembly upwards.
- 11. Start button**
 - On Auto mode, starts machine.
 - No function on Manual mode.
- 12. Top/Both/Bottom switch**
 - On Auto Mode, selects the seams of the box to be taped.
 - On Manual Mode, selects which tape head dispenses tape.

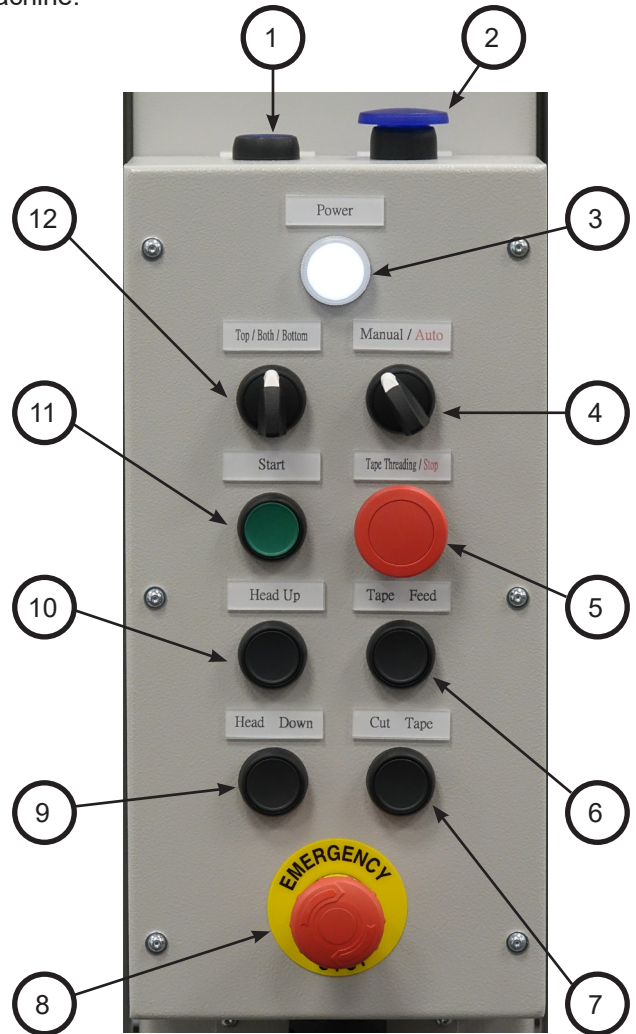


Figure 28: Operator Control Panel

TOP TAPE HEAD LOADING/THREADING

The RSA 3023-WAT-SBHS comes equipped with two sets of tape detection sensors. The “Low Tape” sensors are fixed and will alert the operator when the top or bottom roll of tape will need to be replaced soon. The “Low Tape” sensor is indicated by a blinking yellow light. The “No Tape” sensor will alert the operator when the clutch roller is not moving. The “No Tape” sensor is indicated by a blinking red and yellow light.

Direction of Top Tape Unwind

As shown in the diagram below, tape should be mounted with a counterclockwise, unwind direction. The adhesive side of tape will be facing up as it goes around the peel-off roller.

Top Tape Path

The diagram below shows the threaded tape path using the red line/arrow as the tape. For proper threading of tape use the steps on page 29. The order in which the tape passes the rollers starts at the peel-off roller, travels through three guide rollers and a clutch roller assembly to prevent tape from pulling out of the tape head then over powered roller as shown below.

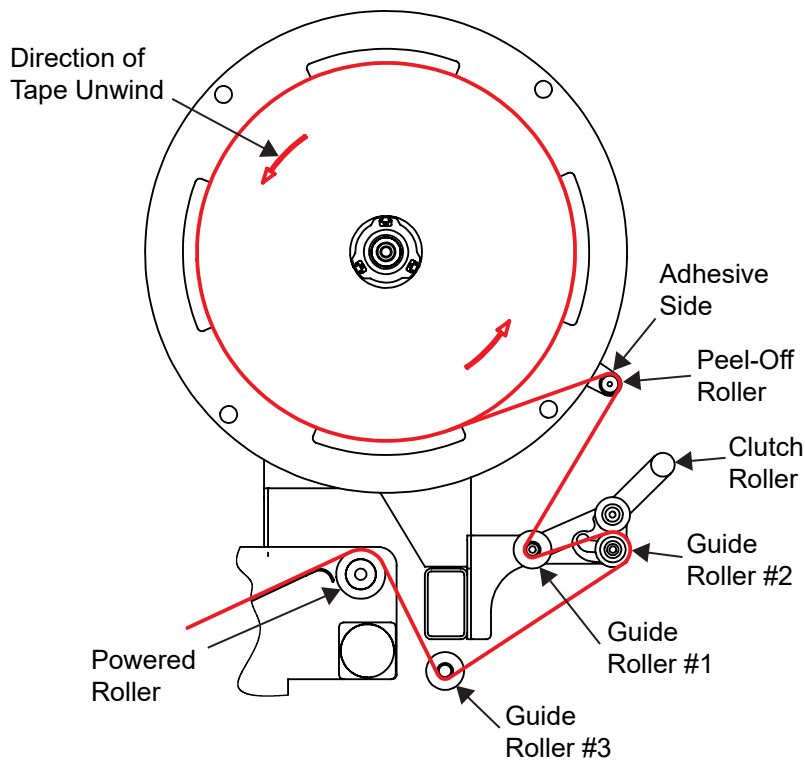


Figure 29: Top Tape Path

TOP TAPE HEAD LOADING/THREADING

Top Tape Loading/Threading Instructions

The instructions below will assist in threading tape on the top tape head. Top Threading diagram is located on page 28.

1. Put machine in Manual Mode using Manual/Auto selector switch (Figure 30, Item 1).
2. Install tape roll on to mandrel making sure the unwind direction is counterclockwise (refer to Figure 29).
3. Pull tape around peel-off roller and towards the front of the machine (Figure 31, Item 5).
4. Bring tape around Guide Roller #1 (Figure 31, Item 6) followed by bringing the tape between the clutch roller and Guide Roller #2 (Figure 31, Item 7).
5. After threading around second guide roller, pass tape under the third roller (Figure 31, Item 10) and pull towards the back of the machine.
6. Bring the tape over the powered drive roller (Figure 31, Item 9) and towards pinch roller (Figure 31, Item 8).
7. Thread tape under guide plate until it reaches the pinch roller. During this process, make sure pinch roller is not engaged. To engage/disengage the pinch roller, use the Tape Threading/Stop button (Figure 30, Item 2) located on the control box.
8. Once tape has been passed under the pinch roller, engage pinch roller using Tape Threading/Stop button (Figure 30, Item 2).
9. Press down the Tape Feed button (Figure 30, Item 3) to allow machine to pass tape through tape shoe and feed out of the tape head.
10. If tape passes with no jams, remove tape from tape shoe guide, and press Start button (Figure 30, Item 4) and hold for one second to begin machine operation. If you encounter a jam, see Clear Mode (Clear Jam), on [page 36](#).

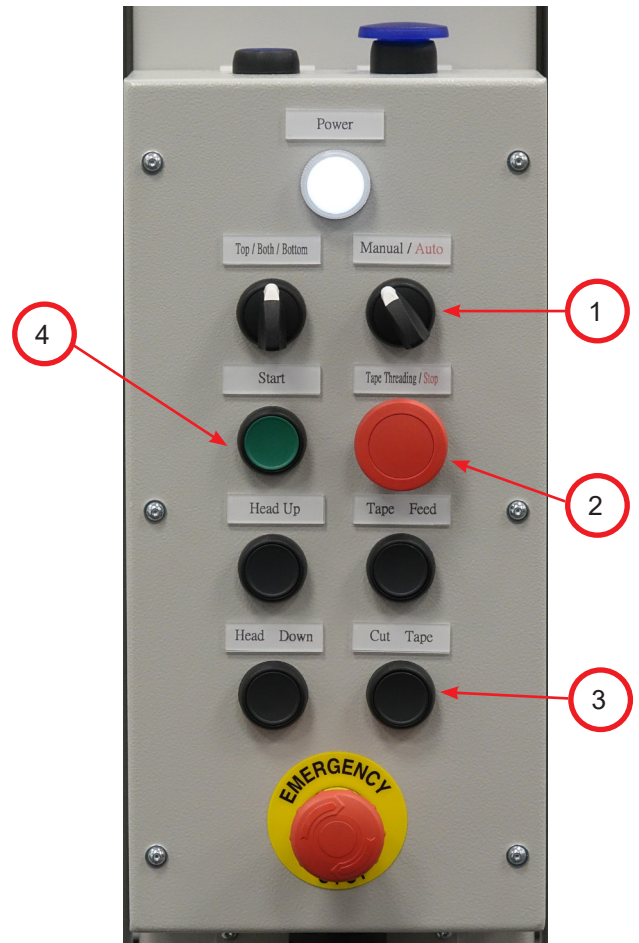


Figure 30: Operator Control Panel

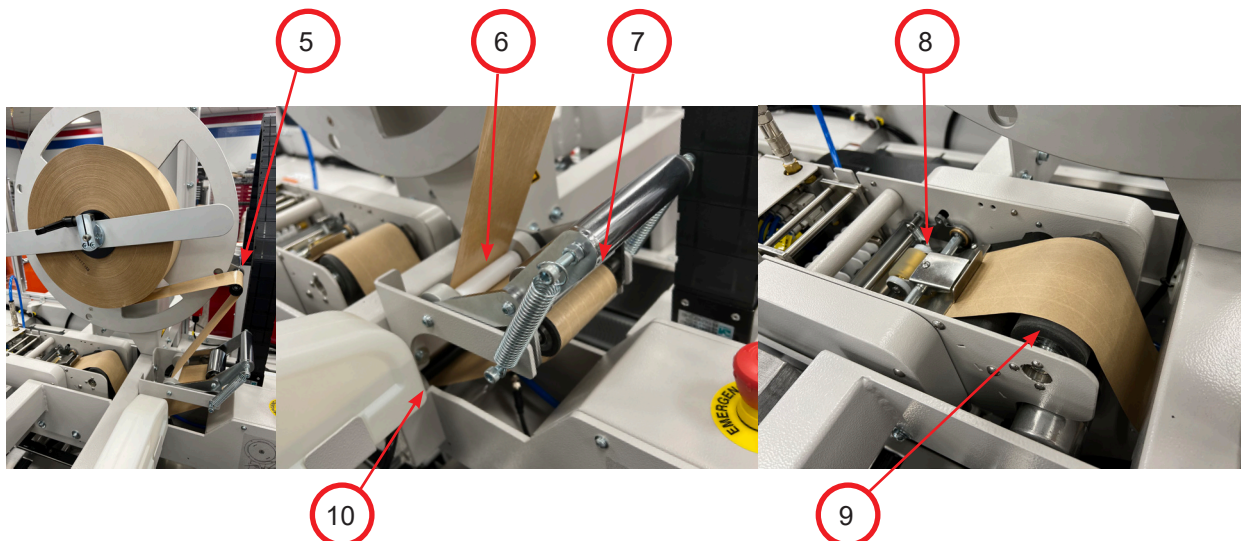


Figure 31: Top Tape Threading

BOTTOM TAPE HEAD LOADING/THREADING

Direction of Bottom Tape Unwind

As shown in the diagram below, tape should be mounted with a clockwise, unwind direction. The adhesive side of tape will be facing down as it goes around the peel-off roller.

Bottom Tape Path

The diagram below shows the threaded tape path using the red line/arrow as the tape. For proper threading of tape use the steps on page 31 (refer to Figure 34). The order in which the tape passes the rollers starts at the peel-off roller, travels through three guide rollers, as labeled below, then over powered roller, and under a fourth guide roller.

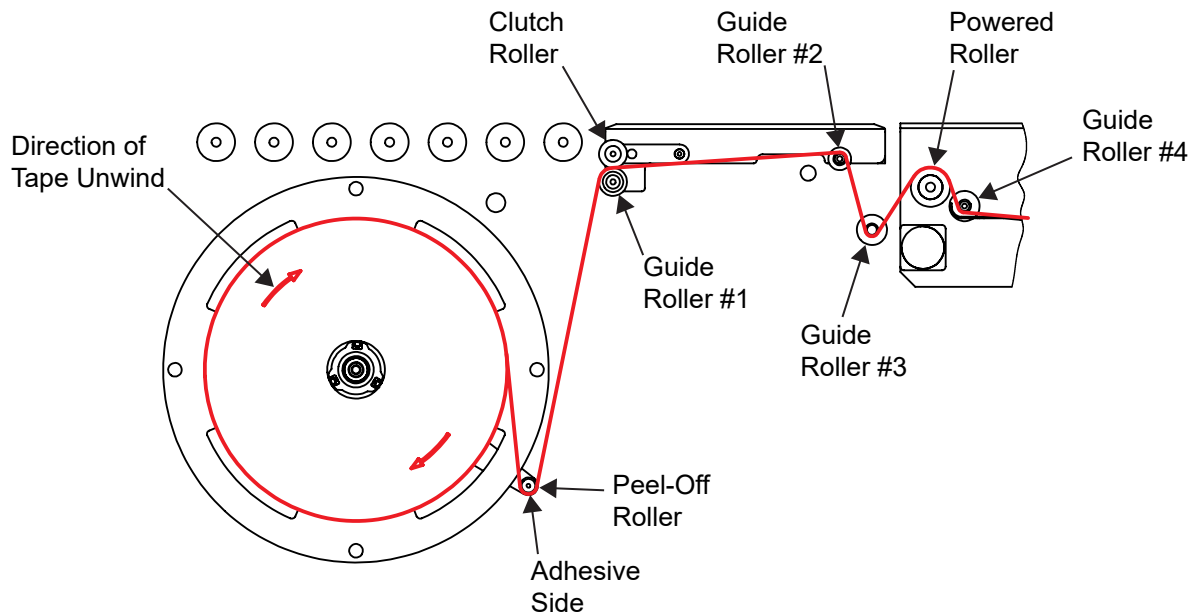


Figure 32: Bottom Tape Path

BOTTOM TAPE HEAD LOADING/THREADING

Bottom Tape Loading/Threading Instructions

The instructions below will assist in threading tape on the bottom tape head. Bottom Threading diagram is located on page 30.

1. Put machine in Manual Mode using Manual/Auto selector switch (Figure 33, Item 1).
2. Install tape roll onto mandrel making sure the unwind direction is clockwise (refer to Figure 32). To move mandrel to tape roll installation position, pull locking lever to unlock mandrel slide handle (Figure 34, Item 5) then pull handle outward. After tape roll has been installed, move mandrel to running position by pushing mandrel slide handle inward and securing with locking lever.
3. Pull tape around peel-off roller and towards the front of the machine with adhesive side facing down (Figure 34, Item 12).
4. Thread tape over the first guide roller and under the clutch roller (Figure 34, Item 6), pull the tape toward the front of the machine going over the second guide roller (Figure 34, Item 12).
5. After threading over the second guide roller, pass tape under the third guide roller (Figure 34, Item 10), then over the powered roller (Figure 34, Item 9), and under the fourth guide roller (Figure 34, Item 7). Ensure pinch roller is not engaged, using the Tape Threading/Stop button (Figure 32, Item 2) to engage/disengage the pinch roller. Pass the tape under the pinch roller (Figure 34, Item 8).
6. Once tape has been passed under the pinch roller, engage pinch roller using Tape Threading/Stop button (Figure 33, Item 2).
7. Press down the Tape Feed button (Figure 33, Item 3) to allow machine to pass tape through tape shoe and feed out of the tape head.
8. If tape passes with no jams, remove tape from tape shoe guide, switch machine to Auto (Figure 33, Item 1), press Start button (Figure 33, Item 4), and hold for one second to begin machine operation. If you encounter a jam, see Clear Mode (Clear Jam) on [page 36](#).

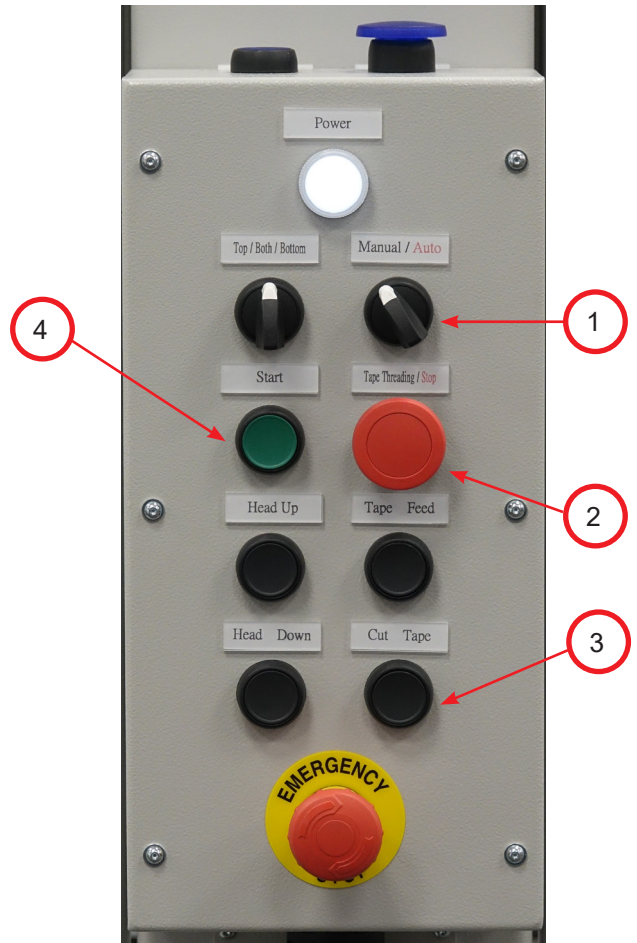


Figure 33: Operator Control Panel

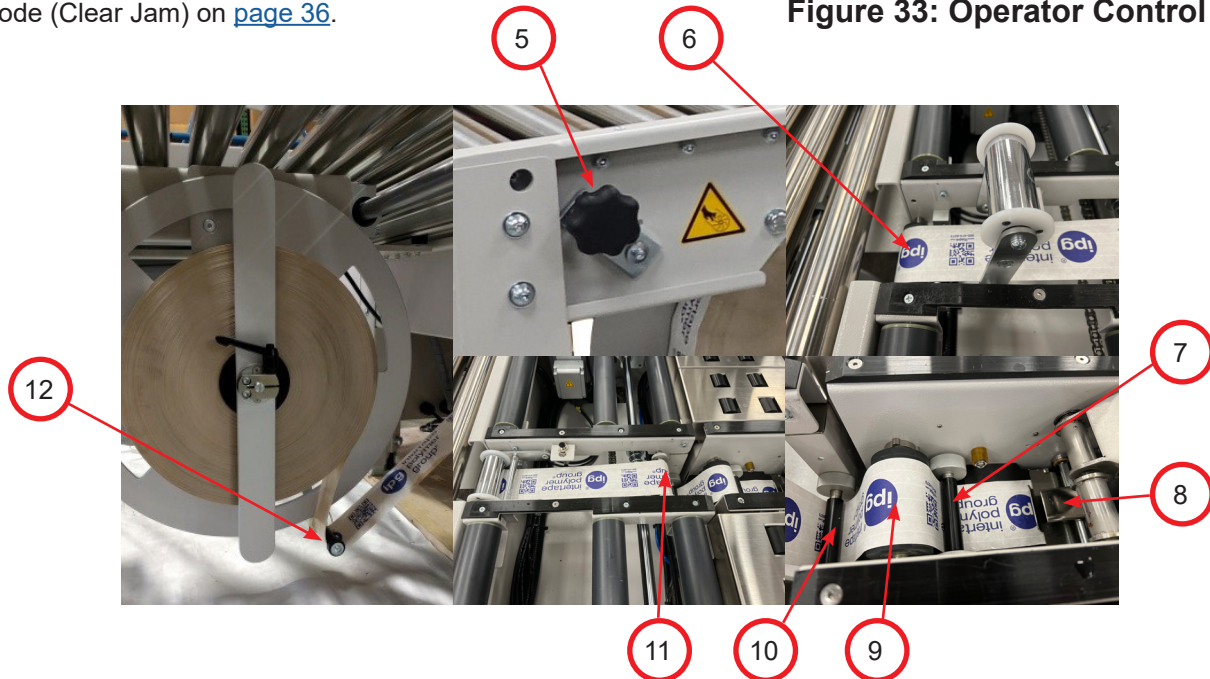


Figure 34: Top Tape Threading

ADDING WATER TO THE SYSTEM

The RSA 3023-WAT-HS comes equipped with two water detection sensors. The “Low Water” sensor can be adjusted to trigger the alert at the desired level. The “Low Water” sensor is indicated by a blinking green light. The “No Water” sensor is fixed and will alert the operator when the machine needs the water reservoir refilled. The “No Water” sensor is indicated by a blinking red and green light.

1. Remove the water bottles by pulling them straight up from support brackets (refer to Figure 35).
2. Turn the bottles over so the water will not spill.
3. Unscrew the valve assembly and remove.
4. Fill the bottle with warm water.
5. Replace the valve assembly.
6. Install the water bottle by inserting it over the water pot post and into the support brackets located on the machine.

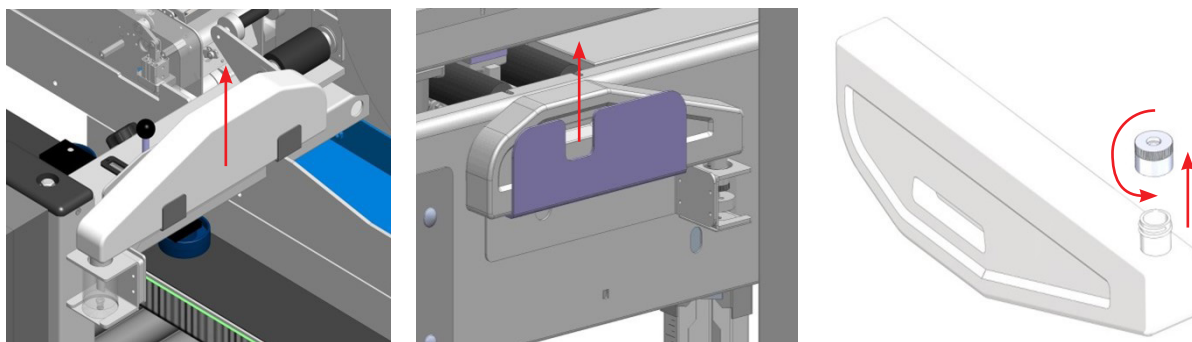


Figure 35: Adding Water to the System

OPERATING INSTRUCTIONS

Once the tape has been loaded and threaded on both the top and bottom, allow up to 10 minutes of being powered on for the machine to become completely ready to process cases. The following instructions are presented in the order recommended for processing cases through the RSA 3023-WAT-HS Case Sealer.

1. Install and thread tape roll on the top and the bottom of the machine (refer to Top Tape Head Loading/Threading and Bottom Tape Head Loading/Threading).
2. Fill water bottles and place them on machine (refer to Adding Water to the System).
3. Open water pot valves on the top and bottom tape heads - make sure water line is connected to the water pot (water pot valves can be identified in figures 46 and 52).
4. The top tape head water line must be purged to allow proper water flow into water pot. Remove the water pot from the tape head and lower it until water starts flowing into the water pot. Introduce water pot into tape head.
5. Supply or connect machine to air line, verify that the machine is set to 90 PSI.
6. Supply or connect machine to 230V electrical supply.
7. Turn on main power disconnect switch located on machine electrical box.
8. Twist five E-stops clockwise and make sure all enclosure doors are closed. Press Reset button to allow machine operation.
9. Set machine to Manual Mode using Manual/Auto selector switch on the control box.
10. Press Tape Feed button to feed a predetermined length of tape through the path. Tape will be cut once length of tape has been fed.
11. Inspect dispensed tape to ensure water is being properly applied to adhesive side. If water is not being properly applied, refer to Chapter 6, Troubleshooting.
12. Switch machine to Auto using Manual/Auto selector switch on the control box.
13. Press Start button to begin machine operation.
14. Introduce a case to the machine indexing gate.
15. The top tape head box will lower or rise to match case height, the side belts will travel horizontally to match case width and process case through machine.
16. Once box has been processed, machine is ready for production.



WARNING: ENSURE THAT THE OPERATOR'S HANDS ARE AWAY FROM THE CONTACT AREA BETWEEN THE TOP TAPE HEAD ASSEMBLY 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.

When feeding cartons into the Case Sealer all flaps must be closed prior to entering the belts. Be sure that all cases are fed squarely and straightly into the Case Sealer, feeding cases crooked can result in poor seals.

The machine is programmed to detect most box jams. In the event the machine detects a jam the belts will stop then open, the bridge will bump up, if tape has been dispensed it will be cut allowing the operator to clear the jam. If a door is opened or the Emergency Stop is engaged the Reset button will need to be pressed to re-energize the system.

In the event the machine does not detect a box jam the operator should press the Clear button. This will stop the belts and open them, cut the tape if it has been dispensed, and raise the bridge all the way. This will allow the operator to clear the jam. If a door is opened or the Emergency Stop is engaged the Reset button will need to be pressed to re-energize the system.



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.

PREPARING CASES TO BE PROCESSED

Overfills and Underfills

Overfills and Underfills, as shown in Figures 35 and 36, 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.

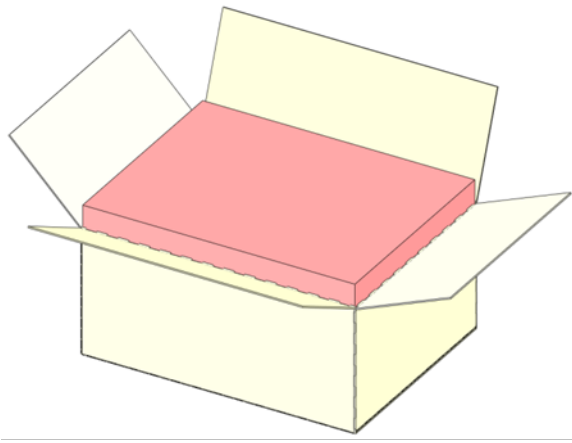


Figure 36: Overfill

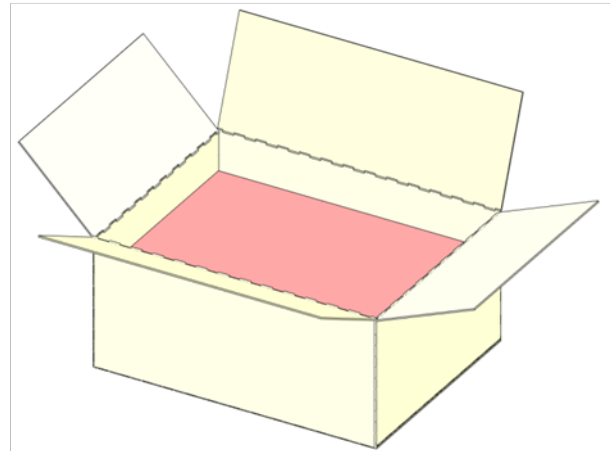


Figure 37: Underfill

Flap Folding

1. Fold minor flaps inward as shown in Figure 38
2. Fold major flaps inward, as shown in Figure 39

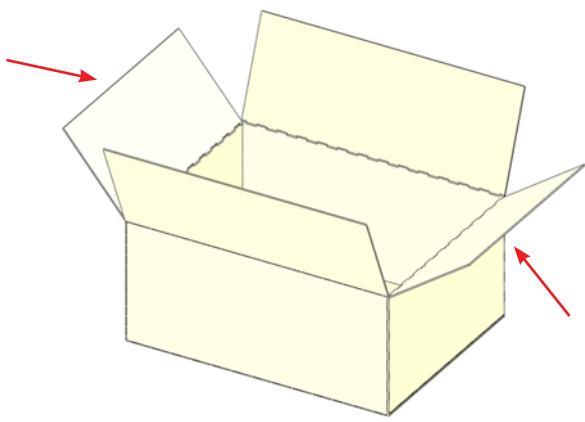


Figure 38: Fold Minor Flaps

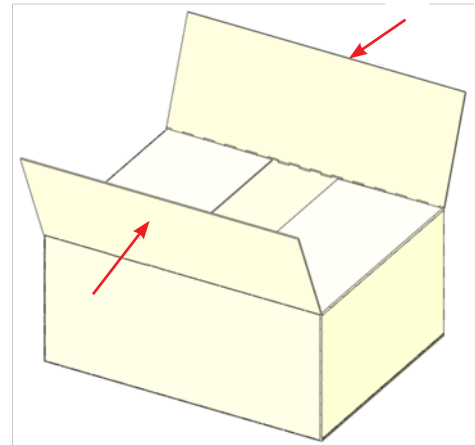


Figure 39: Fold Major Flaps

OPERATION MODES

Control Box

The RSA 3023-WAT-SBHS Case Sealer has four operating modes. The operator selects these modes, using the 2-position switch, push button on the Control Box (refer to Figure 40), and foot switch.

When the case sealer is turned on, the top tape head box will rise to the uppermost position and side belt drives will come out to their outermost position. These positions are referred to as their “home” positions.

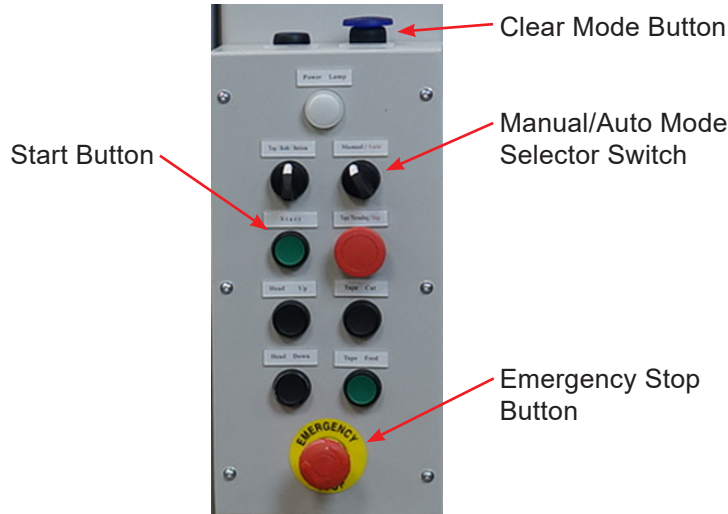


Figure 40: Operator Control Panel

Auto Mode

This is the standard operating mode of the machine. In this mode, the Top Tape Head Box will rise to upper “home” position and the side belt drives will travel to “home” position until case arrives. When a case is being processed, the top tape head box will match case size; side belt drives will move in towards the box and carry case through the exit of the machine.

When the bridge is lowered below 5 in. (127mm) the Light Curtain will activate. When this occurs the belts will not close if the Light Curtain is obstructed.

1. Ensure that the compressed air is plugged and at 100 PSI.
2. Turn the Manual/Auto selector switch on the control box to Auto (Automatic) (refer to Figure 40).
3. The bridge does not rise all the way up when Auto mode starts, except if it is Bottom only. The belts will still open up.
4. Press the Start button, the drive belts will return to “home” position.
5. Introduce a case with the flaps held in the closed position and advance to the indexing gate so the proper sensor is activated. Do not place hands in front of case.
6. The top tape head box will descend to set itself at the height of the case.
7. When the bottom paddle is depressed and the bottom switch is covered, the side drives will close.
8. The case will be processed and tape applied to top and bottom center seams.
9. Once the case is processed and exits the machine, the exit sensor is cleared and the side belt drives will return to “home” position.

OPERATION MODES

Manual Mode

This mode is used for troubleshooting and loading tape on to machine.

1. Ensure that the compressed air is plugged in and at 100 PSI.
2. Turn the control selector to Manual mode (refer to Figure 40).
3. Once set to Manual, other buttons on control box can be used for troubleshooting or loading tape.
4. See Operator Control Box, on [page 27](#), for an explanation of button usage.

Clear Mode

This mode is used to clear a jammed box without the need for the E-Stop.

While in “Clear” mode, the top tape head box will return to its “home” position and the side belt drives will not retain any pressure. The belts will cease operation but the machine will continue to be powered throughout. If electricity needs to be cut off throughout the machine, use the E-stop buttons located on the control box and on the top tape head box.

1. Ensure that the compressed air is plugged in and at 100 PSI.
2. Press downward on the Clear mode button, at the top of the control box, to set machine to clear mode (refer to Figure 40).
3. Remove jammed box.
4. Determine location of tape jam:
 - Inspect and remove tape shoe if there is visible tape in path (refer to [page 49](#) for top and [page 50](#) for bottom).
 - Inspect and remove water pot to clear any tape that may remain from jam (refer to [page 49](#) for top and [page 50](#) for bottom).
 - Inspect tape path prior to cutter for jam, pressing down on the pinch roller to remove any remaining tape.
5. Once box and tape have been removed, press the Reset button to reengage the machine.
6. Flip the Auto/Manual switch to Manual.
7. Press the Tape Feed button to confirm the tape path is clear.
8. Remove the newly dispensed tape.
9. Flip the Auto/Manual switch to Auto.
10. Press the Start button to return to normal operation.



WARNING: ENSURE THAT THE OPERATOR'S HANDS ARE AWAY FROM THE MOVING BELTS OF THE SIDE DRIVE BASE ASSEMBLY. DO NOT PLACE HANDS ON THE FRONT EDGE OF THE CASE WHILE IT IS ENTERING THE MACHINE.

Should any problem occur during processing that requires halting the machine, press any red Emergency Stop button.

The machine should never be washed down or subjected to conditions causing condensation on components.

OPERATION MODES

Pass Through Mode

This mode is used to process cases that have already been taped and sends them through the machine at a high rate of speed without the tape being applied.

There are two processing methods for Pass Through Mode that are able to be toggled through the HMI. Single processing and batch mode.

Single Mode

1. The operator will press the foot switch to engage pass through mode
2. If the machine has already dispensed a tape leg pass through mode will not engage.
3. The operator will present the box as normal.
4. The machine will process the box at speeds up to 240 ft./min without applying tape.
5. Once the box has been processed the machine will return to normal operation.

Batch Mode

1. The operator will press the foot switch to engage pass through mode
2. If the machine has already dispensed a tape leg pass through mode will not engage.
3. The operator will present the box as normal.
4. The machine will process the box at speeds up to 240 ft./min without applying tape.
5. The machine will continue to operate in pass through mode until the operator presses the foot switch a second time.

TROUBLESHOOTING

The RSA 3023-WAT-HS 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.

The RSA 3032-WAT-SBHS Case Sealer is equipped with a Red, Yellow, and Green stack light and will display the following visual codes for various states of the machine.

- **Solid Green** – Running in Auto Mode
- **Blinking Green** – Low Water Warning
- **Solid Yellow** – Ready (not running)
- **Blinking Yellow** – Low Tape Warning
- **Solid Red** – Box Jam/Machine Error
- **Blinking Red** – Taping Error
- **Slow Blinking Red** – E-Stop Condition
- **Blinking Red and Yellow** – No Tape
- **Blinking Red and Green** – No Water

The machine is also equipped with notifications lights on the Emergency Stop box that is located at the infeed end of the machine.

- **Solid Red** – Exit Clear Photoeye Blocked
- **Blinking Red** – Downstream Conveyor Stopped
- **Solid Yellow** – Pass Through Mode Engaged
- **Blinking Yellow** – Tape Leg Already Dispensed: Unable to Enter Pass Through Mode

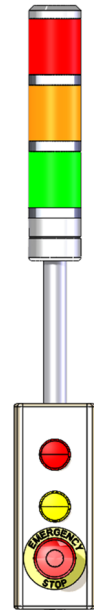


Figure 41: Stack Light

In the event that you are experiencing difficulty and/or have come across a problem that is not covered in the previous troubleshooting charts contact your IPG distributor or IPG Machinery Support.

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

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.

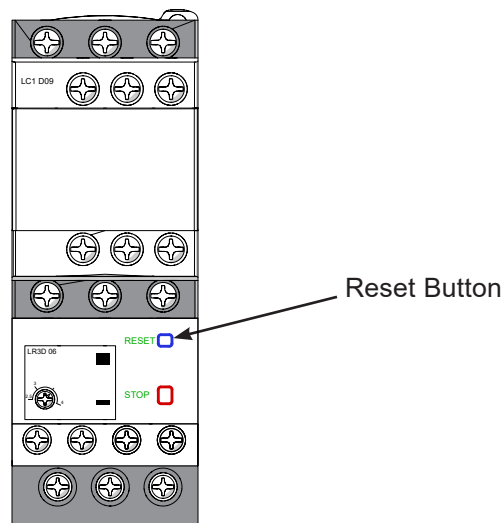


Figure 42: Motor Overload

TROUBLESHOOTING

The RSA 3023-WAT-HS Case Sealer comes equipped with a HMI screen that is located on the top of the electrical box. This screen offers users the ability to review a variety of alarm history details and to view the input and output IO for ease of troubleshooting assistance.

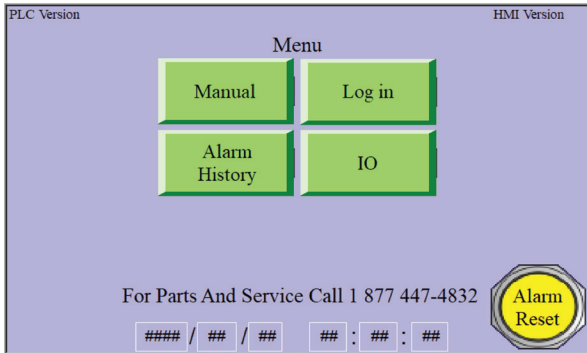


Figure 43: HMI Home Screen

This is the Home screen of the HMI that is available to all users of the machine. If an error is not easily identifiable it will display on this screen. If the error has been cleared and no longer displays on the Home screen the operator can press Alarm History to view the various alarms that have come up on the machine.

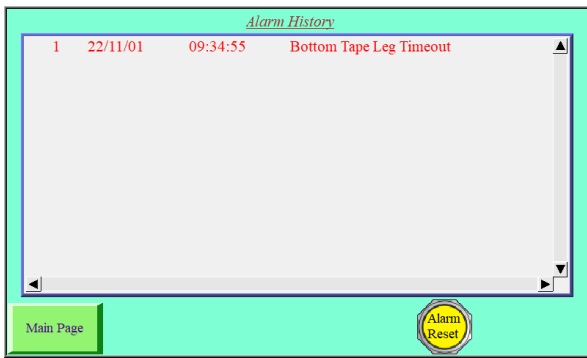


Figure 44: HMI Alarm History Screen

This is the Alarm History screen of the HMI that is available to all users of the machine. This will display a full list of all alarms since install or the last date the alarms have been reset. In the event the error display on the Home screen has been reset it will have a history here.

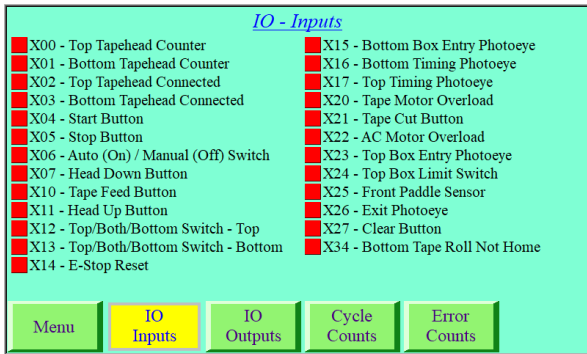


Figure 45: HMI IO Inputs Screen

This is the IO Input screen of the HMI that is available to all users of the machine. This displays a current, real-time, display of all the inputs and their states. When the blocks are red that means the PLC is not receiving signal from that source. When the blocks are green the PLC is receiving signal from that source. This is helpful when attempting troubleshooting.

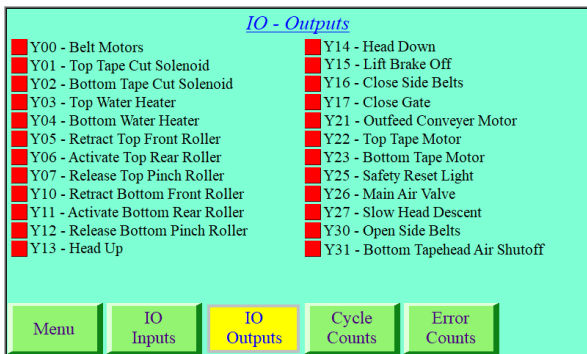
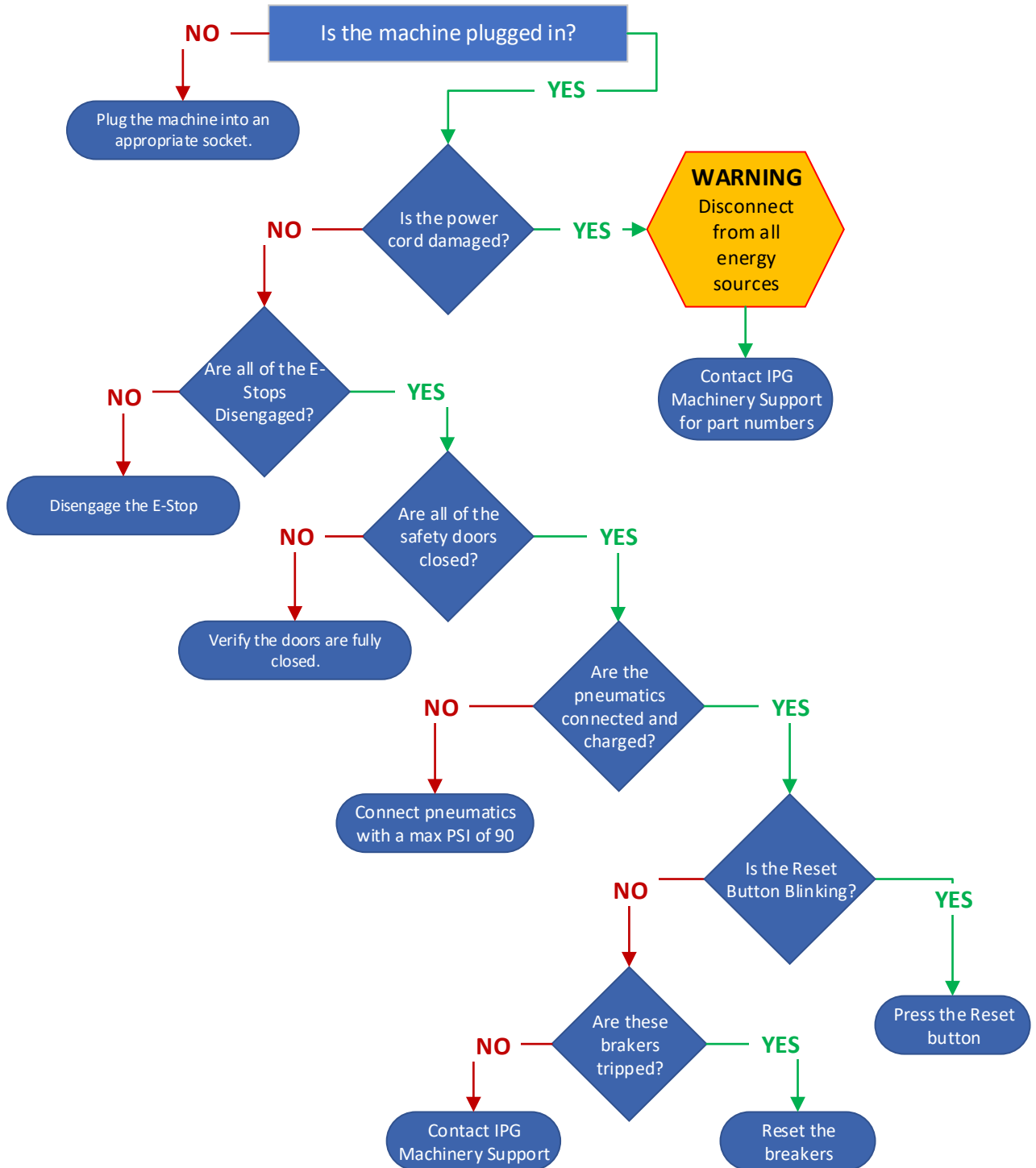


Figure 46: HMI IO Outputs

This is the IO Output screen of the HMI that is available to all users of the machine. This displays a current, real-time, display of all the outputs and their states. When the blocks are red that means the PLC is not sending signal to that source. When the blocks are green the PLC is sending signal to that source. This is helpful when attempting troubleshooting.

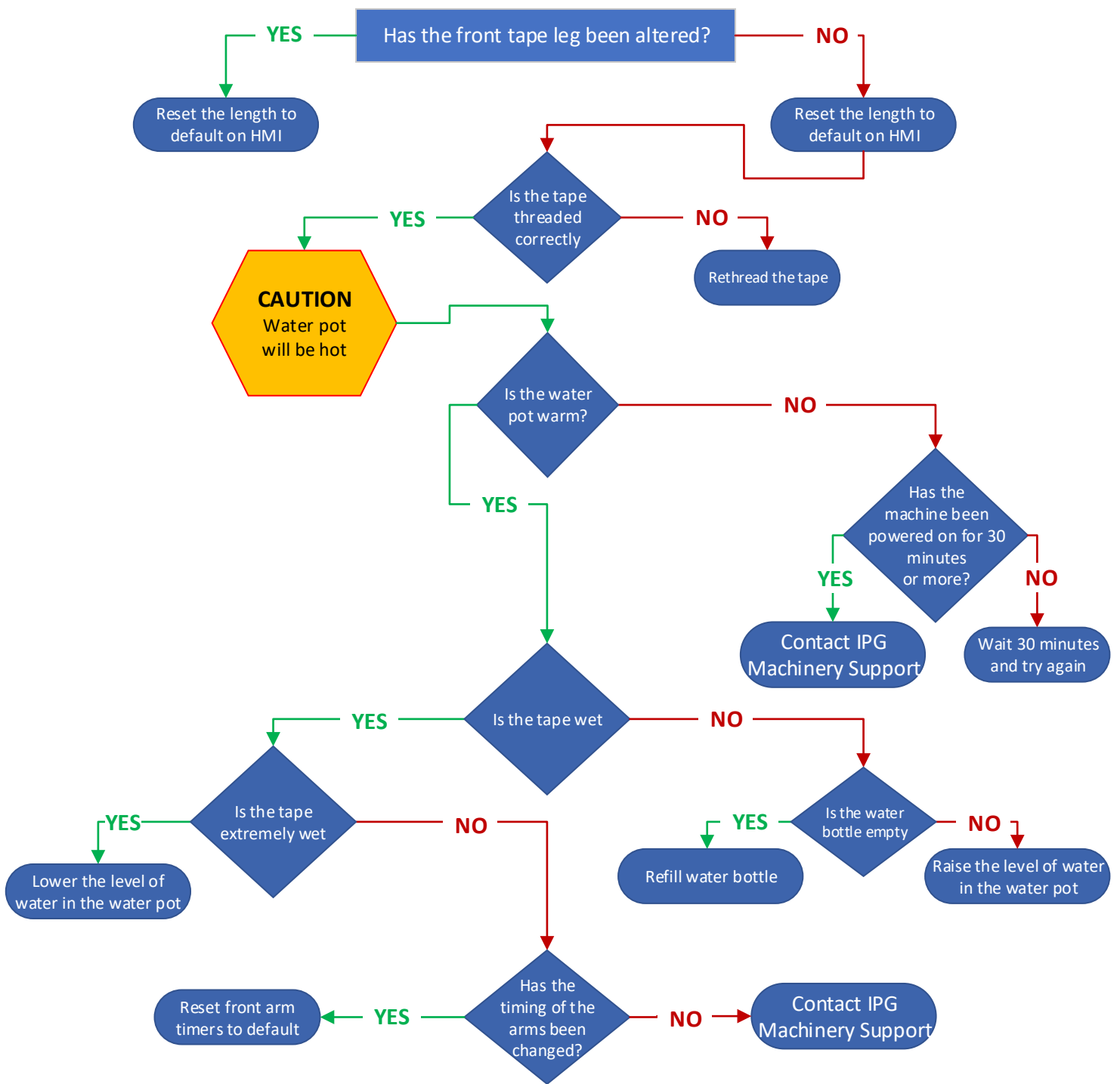
TROUBLESHOOTING

The Machine is Turned on and Nothing Happens



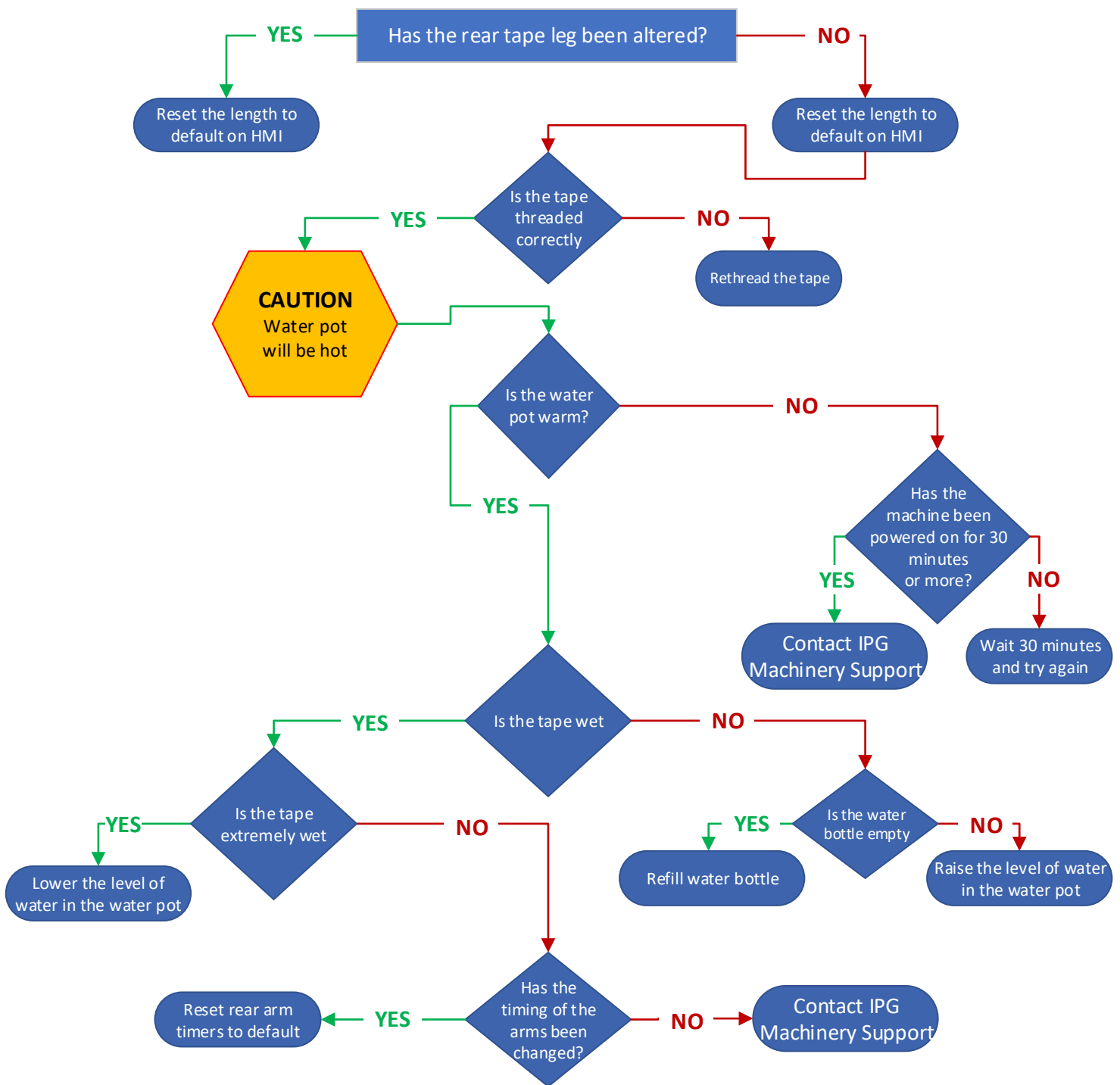
IPG Machinery Support
877-447-4832 Option 4

Front Tape Leg Not Sticking



IPG Machinery Support
877-447-4832 Option 4

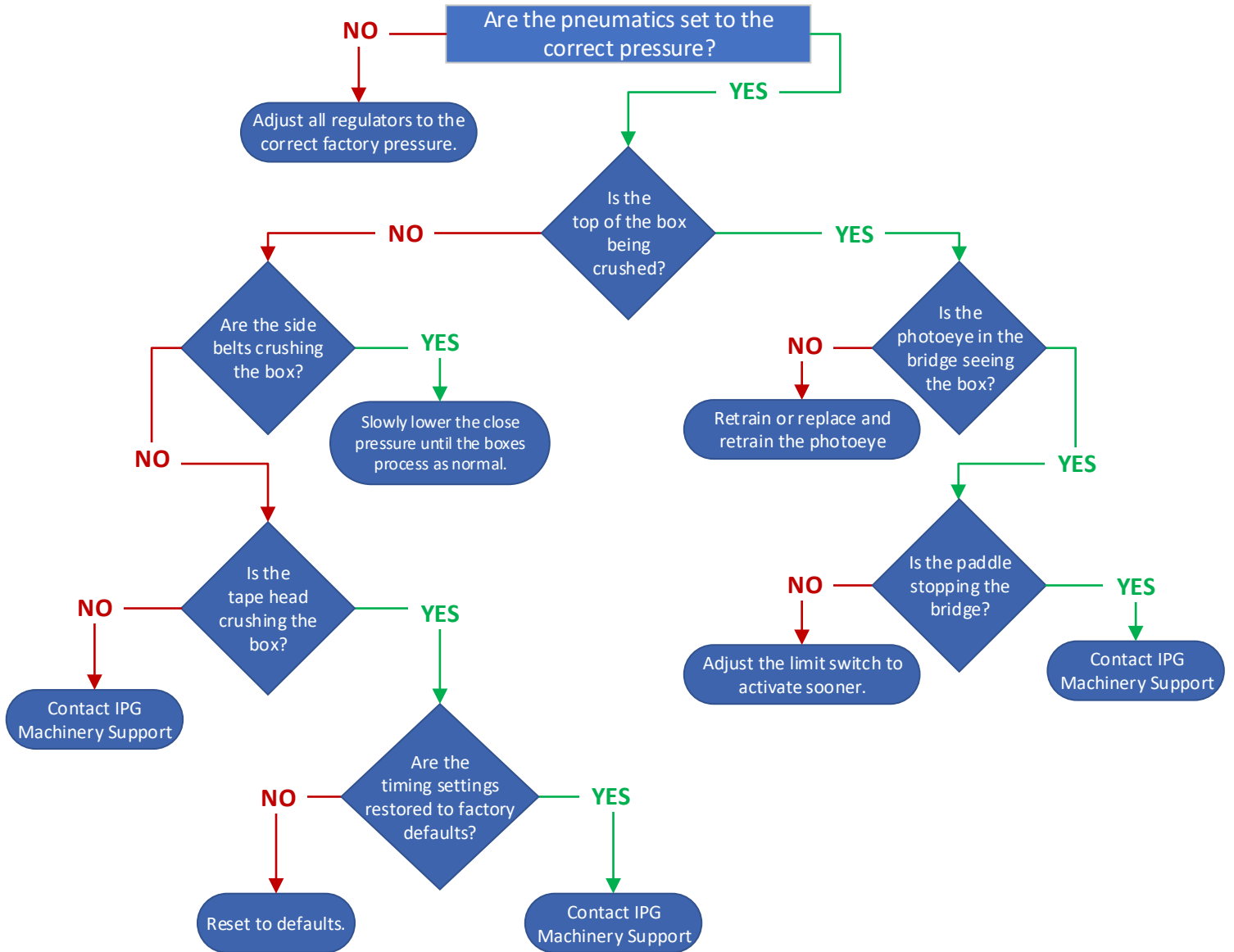
Rear Tape Leg Not Sticking



IPG Machinery Support
877-447-4832 Option 4

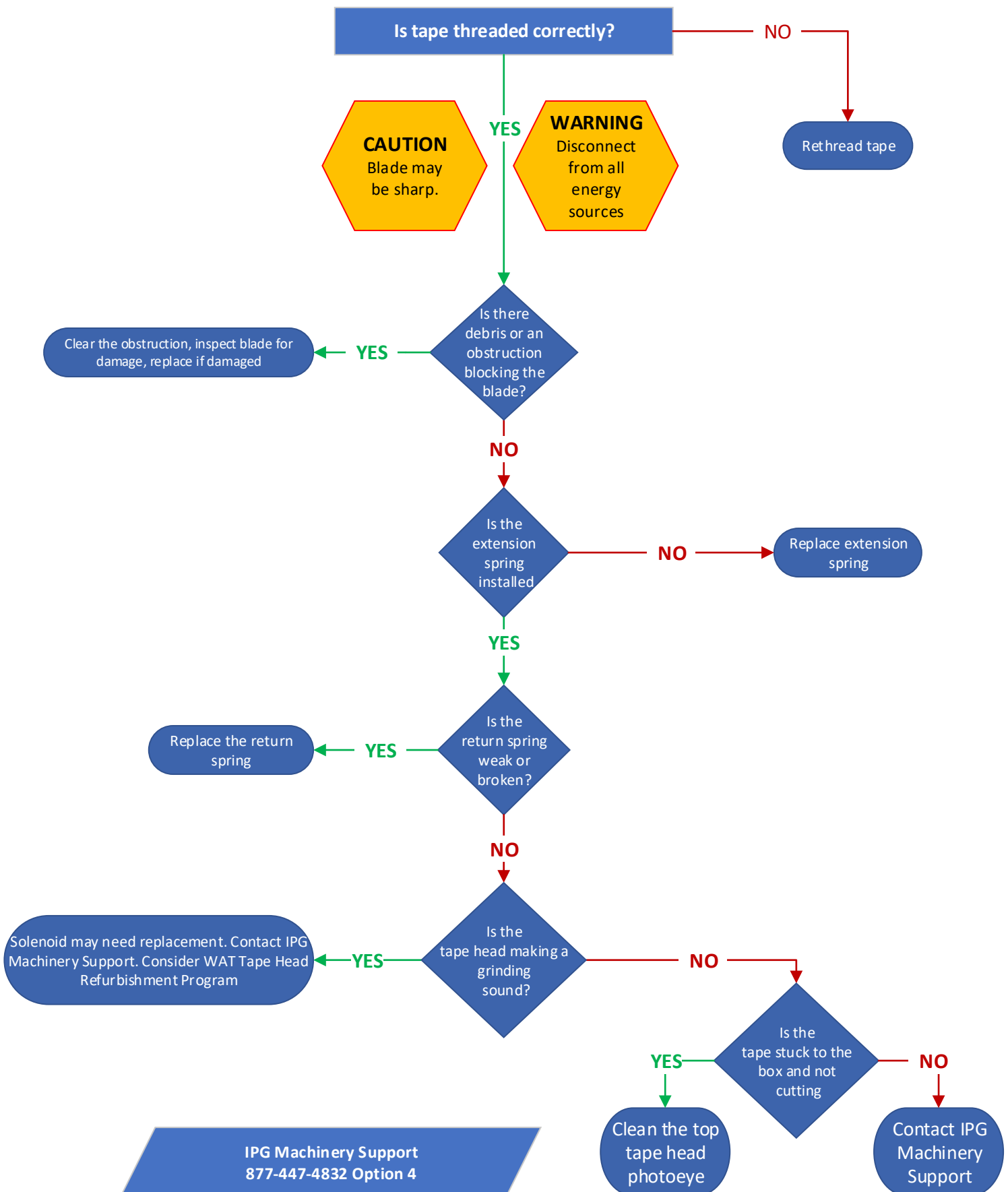
TROUBLESHOOTING

Case is Getting Crushed?



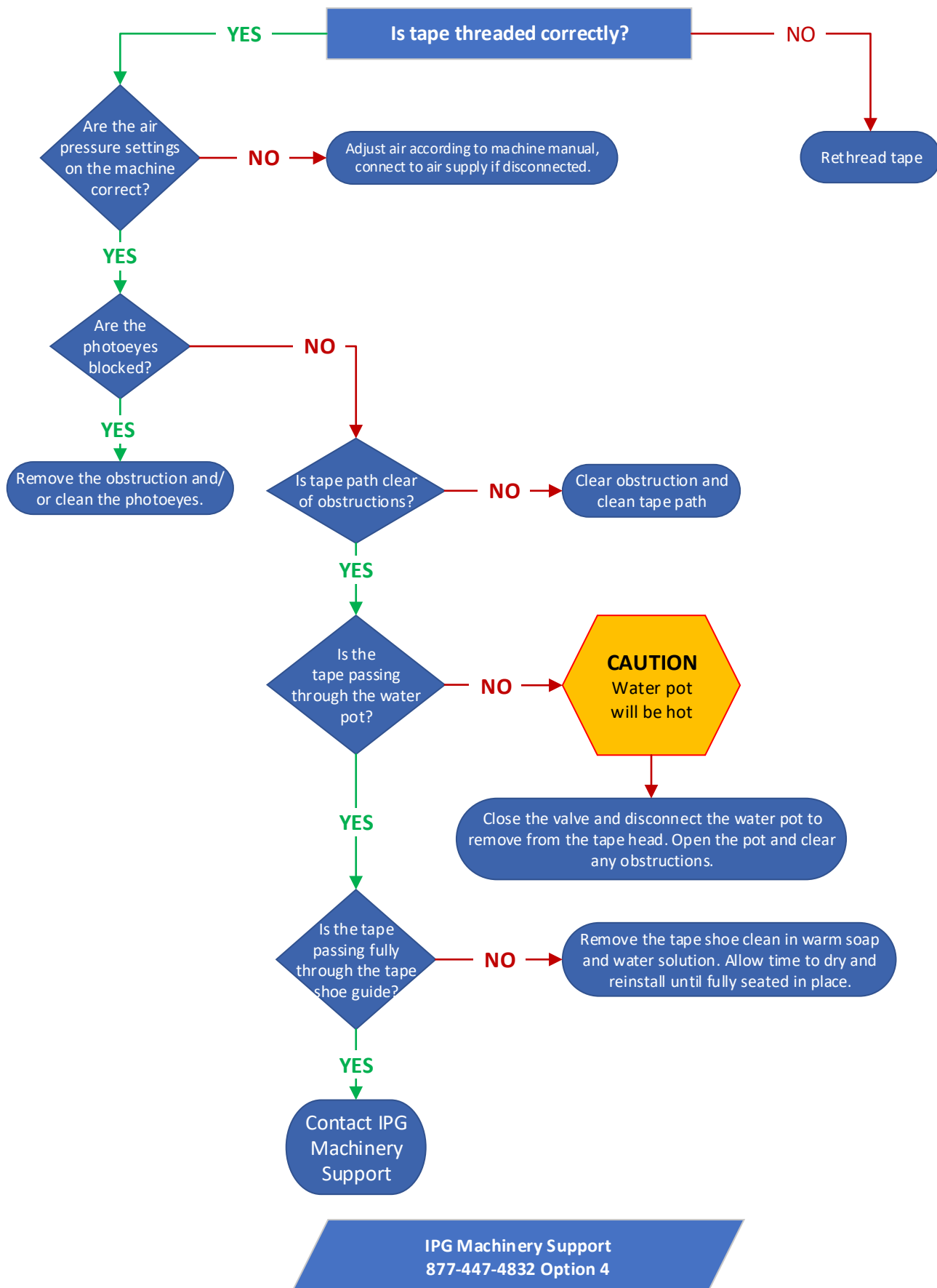
IPG Machinery Support
877-447-4832 Option 4

Tape Does Not Cut

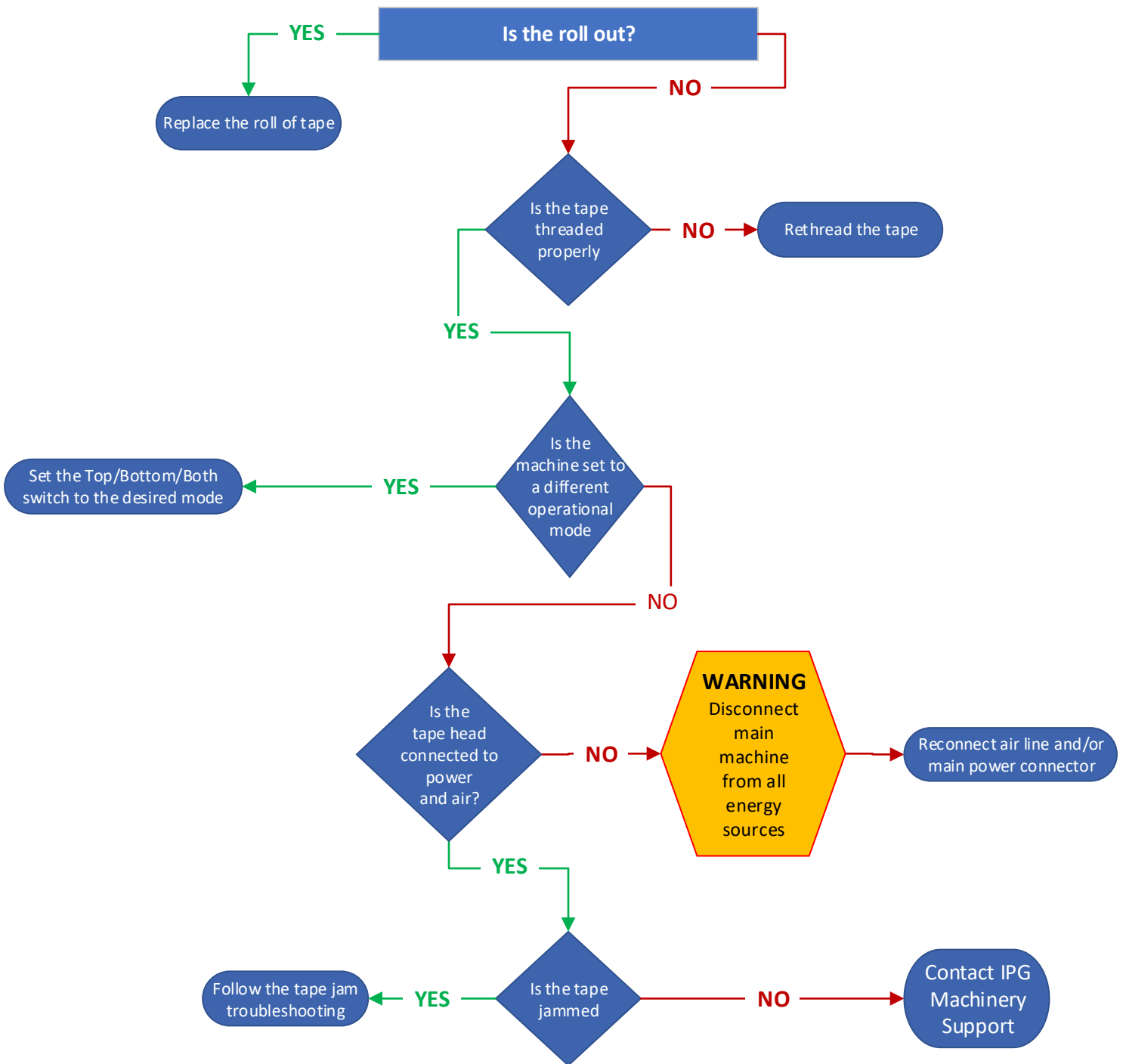


IPG Machinery Support
877-447-4832 Option 4

Tape Jam



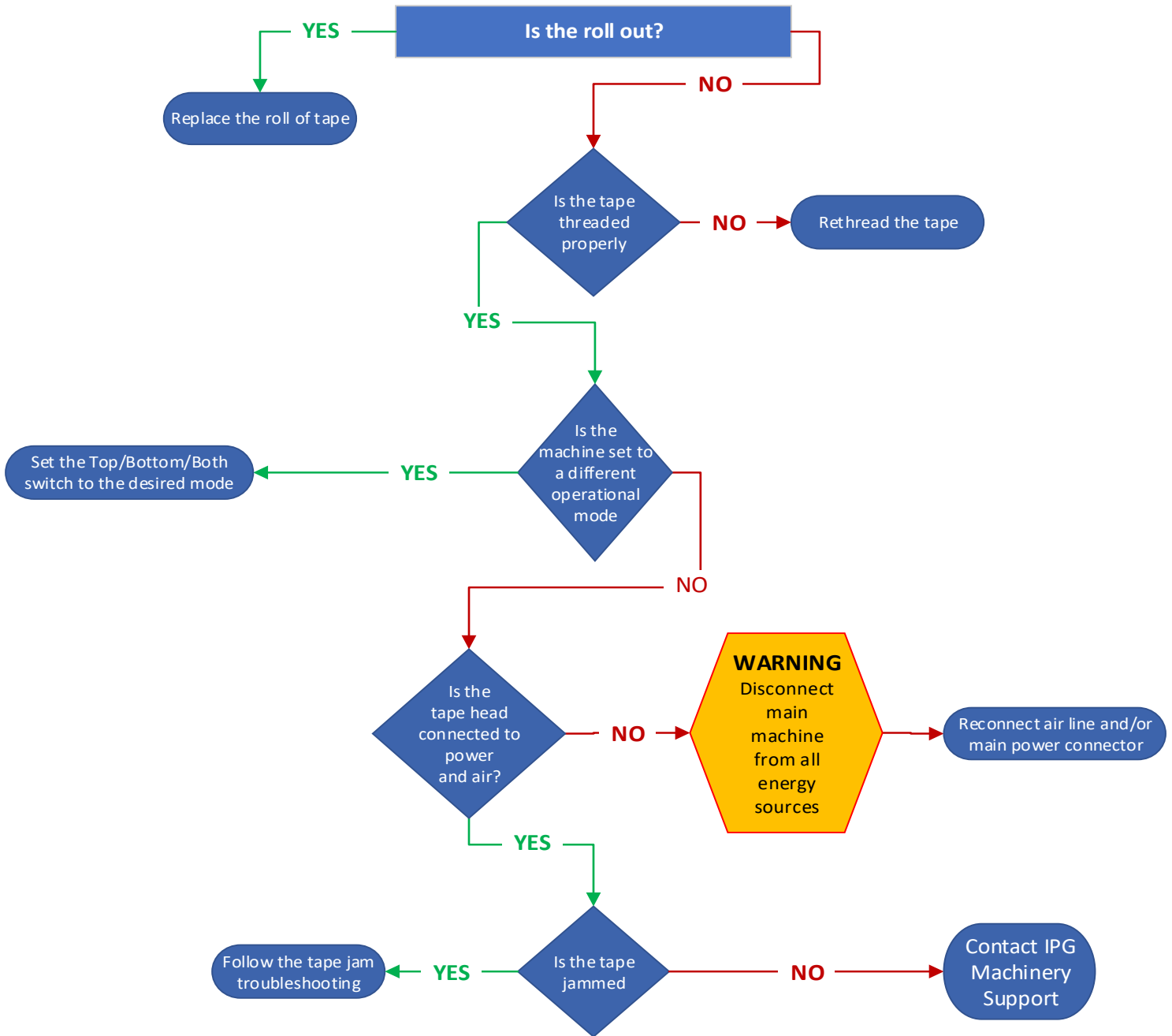
Wrinkles in the Tape



IPG Machinery Support
877-447-4832 Option 4

TROUBLESHOOTING

Tape Not Dispensed



IPG Machinery Support
877-447-4832 Option 4

MAINTENANCE

The RSA 3023-WAT-HS 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 column shafts, 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	
Column Shafts	Lubricate	Dry PTFE		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		
Water Pot/Reservoir	Rinse out thoroughly			X	
Wetting Roller	Clean roller	Water, Mild Detergent			
Wipe Down Drive Rollers	Remove dust	Air Hose	X		
Tape Head Assist Roller	Clean roller	Water, Mild Detergent	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. The table of parts to the right is the recommended list of spare parts. 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
Peel off Spring	UPH1289	2
Pressure Gauge	UPM3654	1
Emergency Stop Button	UPM4816	1
Driving Belts	UPM4884	2
Water Pot Roller	WET0071	2
WAT Tape Head Roller	WPT0144	2
Striker Plate	WPT0044	2
Cutter Blade	WPT0050	2
Extension Spring	WPT0063	2

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.

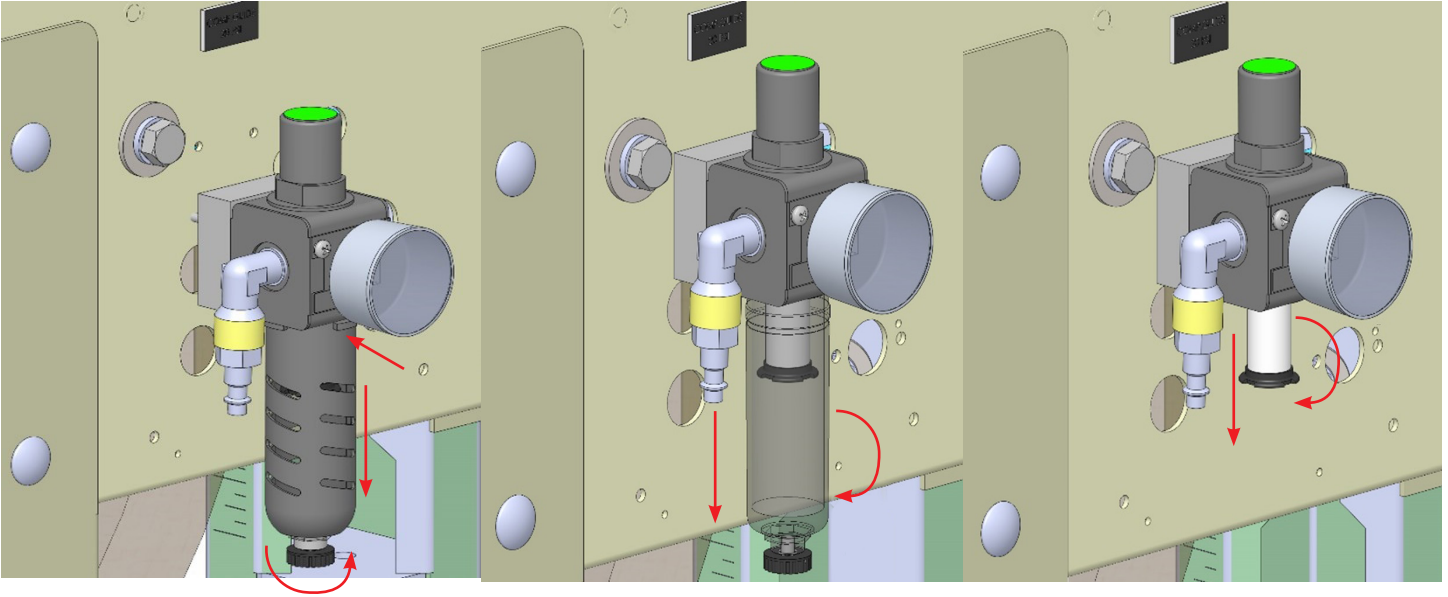


Figure 47: Filter Regulator

MAINTENANCE

Removing the Top Tape Head

For cutter blade maintenance and replacement, removal of the tape heads is required for ease of access. Make sure tape has been removed from the top tape head before attempting to remove them from machine.

1. Remove quick-disconnect from the top of tape head, (refer to Figure 48).
2. Disconnect electrical connection of tape head by unhinging and removing plug, (refer to Figure 49).
3. Turn off flow of water by turning valve until it is perpendicular to flow of water and remove quick-disconnect to allow removal of water pot, (refer to Figure 50).

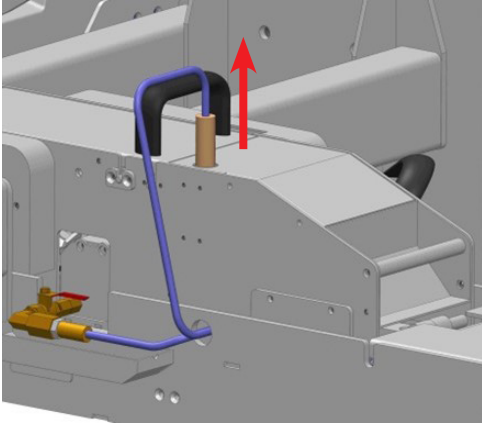


Figure 48: Quick Disconnect

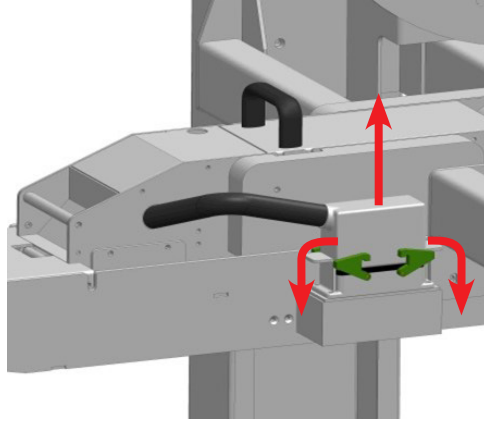


Figure 49: Power Disconnect

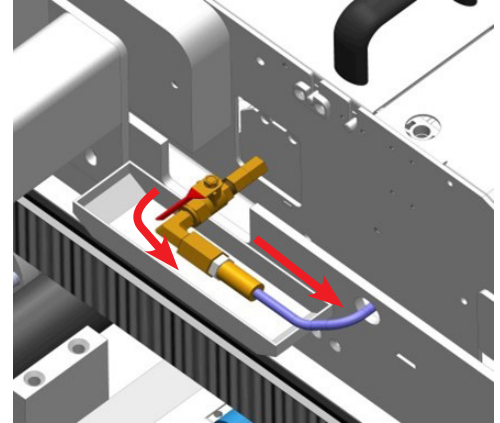


Figure 50: Water Disconnect

4. Remove water pot from tape head, (refer to Figure 51).
5. Pull hold-down plate upwards to allow for removal of tape head, (refer to Figure 52).
6. Pull tape head forward then up to remove from tape head box, (refer to Figure 53).

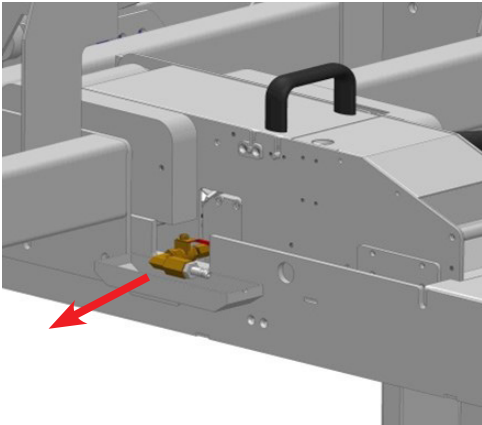


Figure 51: Remove Water Pot

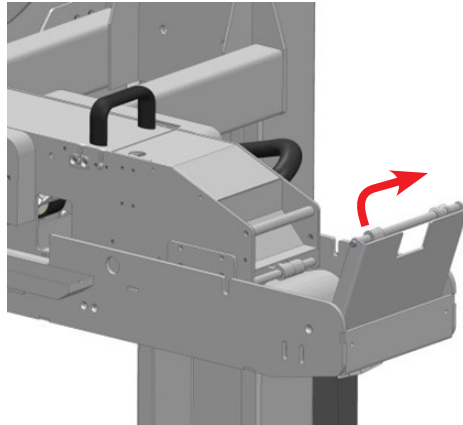


Figure 52: Pull Hold Down Plate

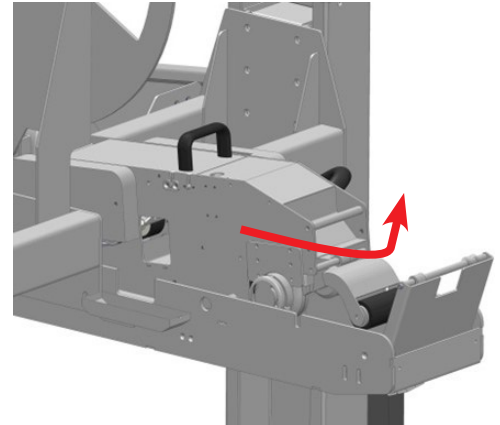


Figure 53: Remove Top Head

MAINTENANCE

Removing the Top Tape Head

For cutter blade maintenance and replacement, removal of the tape heads is required for ease of access. Make sure tape has been removed from the bottom tape head before attempting to remove them from machine.

1. Remove side covers on both sides of tape head, (refer to Figure 54).
2. Disconnect electrical connection of tape head by unHINGING and removing plug, (refer to Figure 55).
3. Turn off flow of water by turning valve until it is perpendicular to flow of water and remove quick-disconnect to allow removal of water pot, (refer to Figure 56).

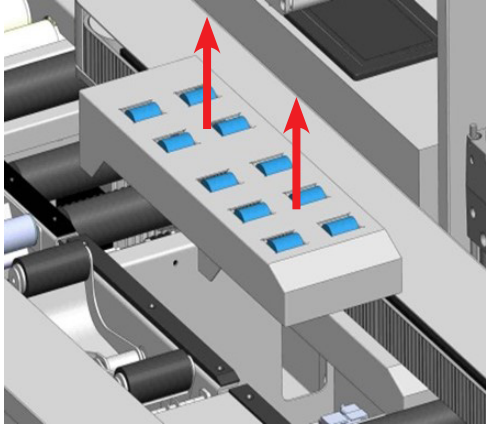


Figure 54: Remove Covers

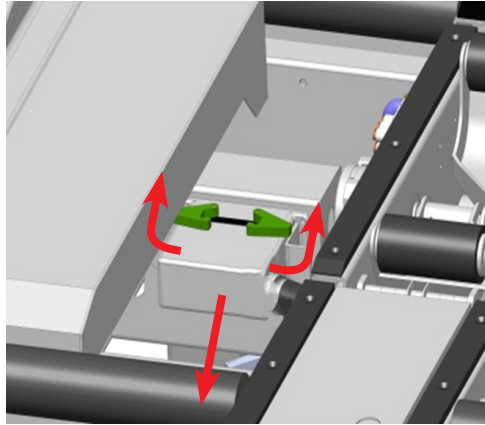


Figure 55: Power Disconnect

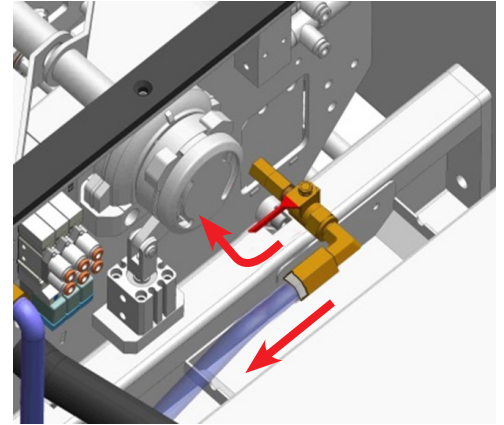


Figure 56: Water Disconnect

4. Remove water pot from tape head, (refer to Figure 57).
5. Remove air quick-disconnect, (refer to Figure 58).
6. Lift tape head upwards to remove from tape head box, (refer to Figure 59).

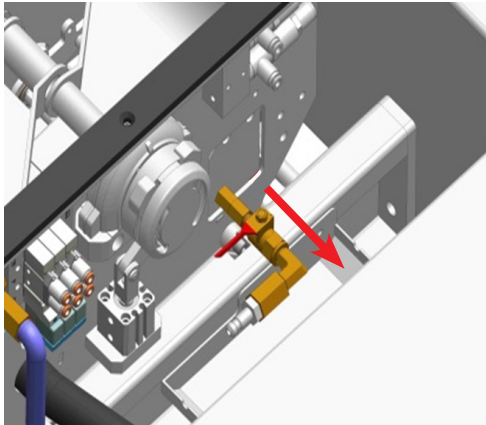


Figure 57: Remove Water Pot

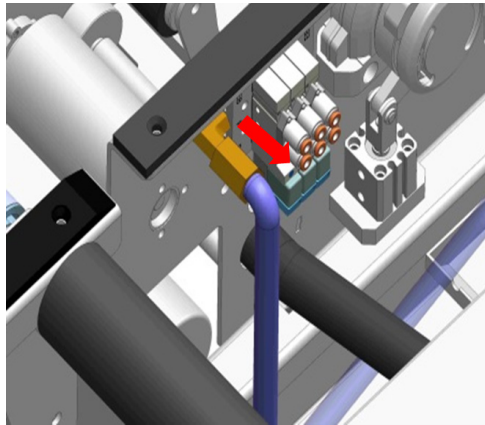


Figure 58: Quick Disconnect

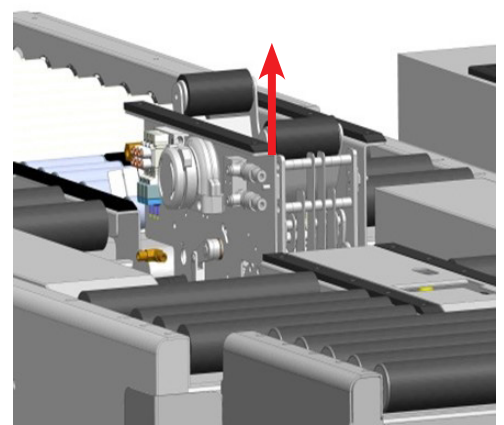


Figure 59: Remove Tape Head

MAINTENANCE

Cleaning the Cutter Blade, Top Tape Head



WARNING: THE KNIFE CONTAINED IN THE TAPE HEADS IS EXTREMELY SHARP. USE CAUTION WHEN THREADING THE TAPE OR PERFORMING MAINTENANCE TO AVOID INJURY.

1. Remove top cover from tape head, (refer to Figure 60).
2. Remove tape shoe and water pot from tape head, (refer to Figure 61), to gain access to cutter blade area.
3. While retaining the knife arm position, clean the blade on both sides using damp cloth and a mild detergent. Use caution as blade is extremely sharp.
4. Clean the Striker Plate using damp cloth and a mild detergent (refer to Figure 62).
5. Insert water pot and tape shoe.

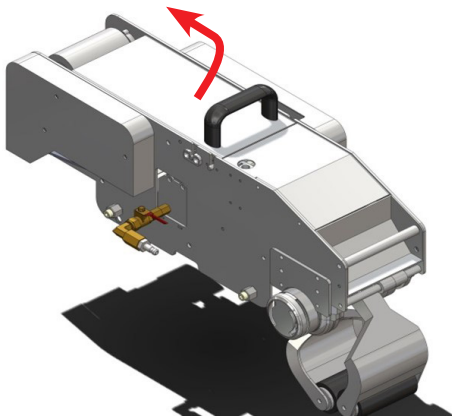


Figure 60: Remove Top Cover

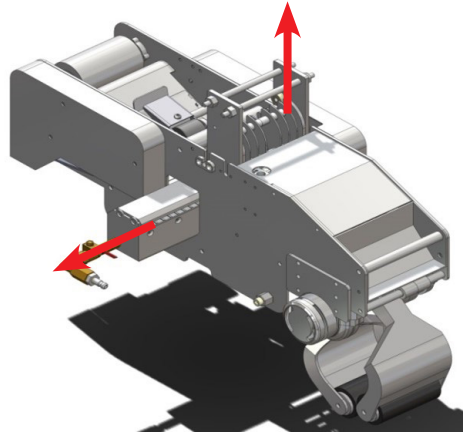


Figure 61: Remove Tape Shoe and Water Pot

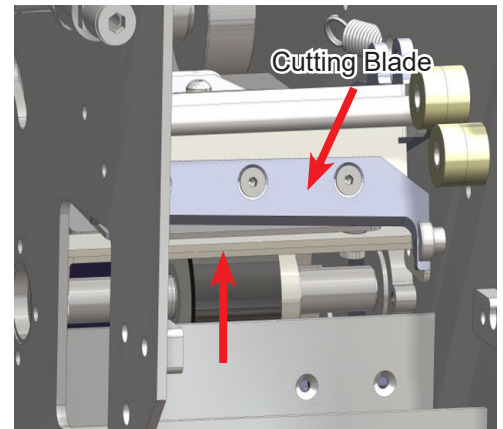


Figure 62: Clean Striker Plate

MAINTENANCE

Cleaning the Cutter Blade, Bottom Tape Head



WARNING: THE KNIFE CONTAINED IN THE TAPE HEADS IS EXTREMELY SHARP. USE CAUTION WHEN THREADING THE TAPE OR PERFORMING MAINTENANCE TO AVOID INJURY.

1. Remove tape shoe and water pot from tape head, (refer to Figures 63 and 64), to gain access to cutter blade area.
2. While retaining the knife arm position, clean the blade on both sides using damp cloth and a mild detergent. Use caution as blade is extremely sharp.
3. Clean the Striker Plate using damp cloth and a mild detergent (refer to Figure 65).
4. Re-insert water pot and tape shoe.

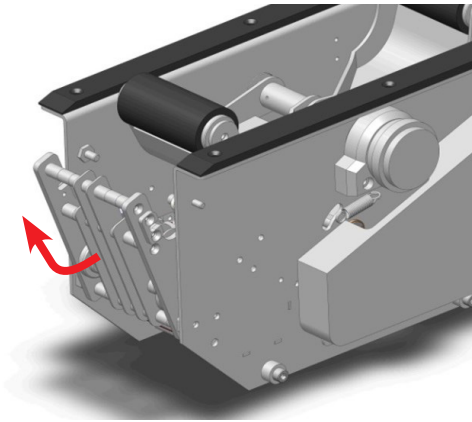


Figure 63: Remove Tape Shoe

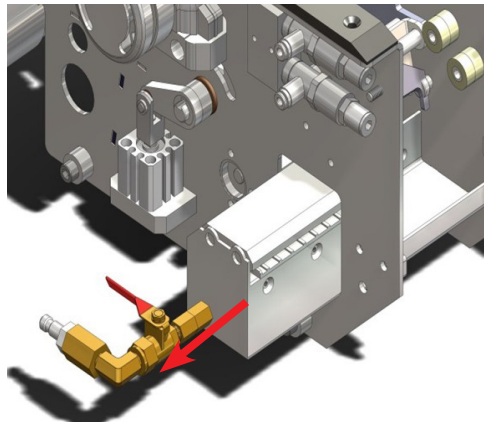


Figure 64: Remove Water Pot

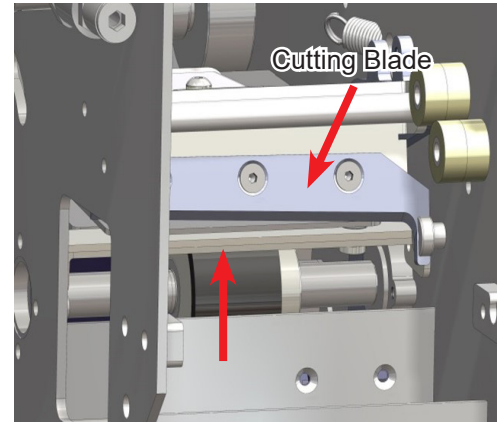


Figure 65: Clean Striker Plate

MAINTENANCE

Cutter Blade Maintenance



WARNING: THE KNIFE CONTAINED IN THE TAPE HEADS IS EXTREMELY SHARP. USE CAUTION WHEN THREADING THE TAPE OR PERFORMING MAINTENANCE TO AVOID INJURY.

The cutter blade must rise when tape is being processed to allow the tape to proceed underneath. The blade must therefore raise and return without restriction (refer to Figure 62). Should the blade not raise and return when tape is processed, do the following:

1. Remove tape shoe from tape head from top tape head, ([refer to page 51](#)) or tape shoe from tape head from bottom tape head, ([refer to page 52](#)).
2. Remove the water pot from top tape head, ([refer to page 51](#)) or water pot from tape head from bottom tape head, ([refer to page 52](#)).
3. Observe to see when the blade raises that there is no hesitation or delay.
4. Observe to see that there is wide enough opening between cutter blade and the striker plate to allow the full tape width to pass through.
5. If no clearance is observed, clean the Striker Plate and Cutter Blade (see [page 51 for top tape head](#) or [page 52 for bottom tape head](#)).
6. If above does not fix the problem, please contact technical support
7. Replace tape shoe and water pot.

Cutter Blade Should Raise
& Return Unrestricted

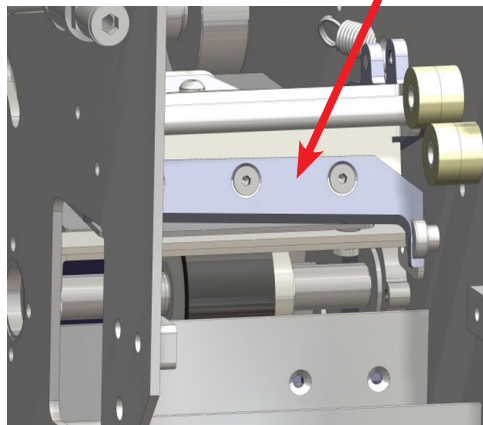


Figure 66: Cutter Blade Maintenance

MAINTENANCE

Cutter Blade Replacement



WARNING: THE KNIFE CONTAINED IN THE TAPE HEADS IS EXTREMELY SHARP. USE CAUTION WHEN THREADING THE TAPE OR PERFORMING MAINTENANCE TO AVOID INJURY.

1. Remove tape shoe from tape head from top tape head, ([refer to page 51](#)) or tape shoe from tape head from bottom tape head, ([refer to page 52](#)).
2. Remove the water pot from top tape head, ([refer to page 51](#)) or water pot from tape head from bottom tape head, ([refer to page 52](#)).
3. Remove the upper guide plate.
4. Remove the three 4mm countersink hex screws with a 2.5mm hex key.
5. Remove the cutter blade (refer to Figure 67).
6. Remove the two 4mm screws on the striker plate with a 2.5mm hex key.
7. Remove the striker plate (refer to Figure 68).
8. Replace the cutter blade and striker plate.
9. Place the water pot assembly and upper guide plate back into tape head.

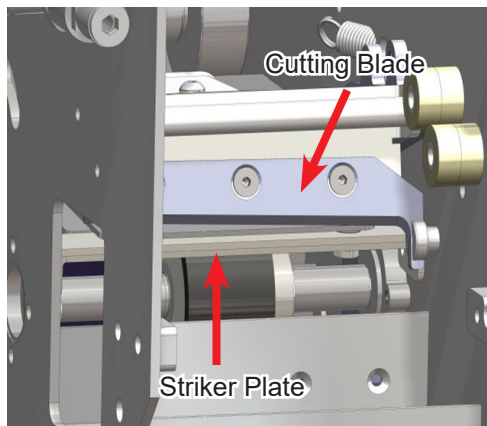


Figure 67: Striker Plate and Cutting Blade

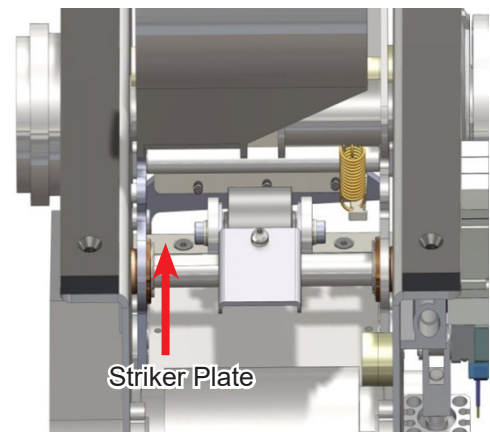


Figure 68: Striker Plate

MAINTENANCE

Drive Belt Replacement

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

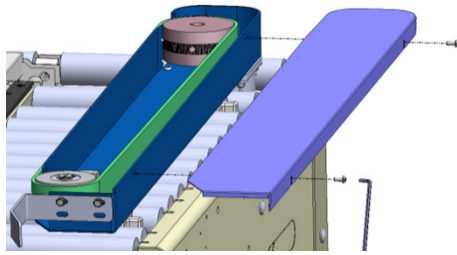


Figure 69: Drive Base Cover

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

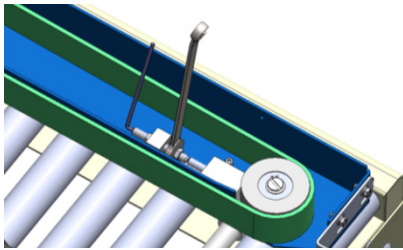


Figure 70: Loosen Belt Tension Bolt

3. Remove worn belt and replace with new belt.

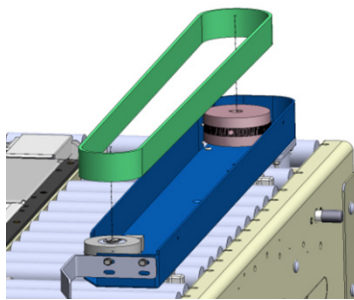


Figure 71: Replace Belt

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

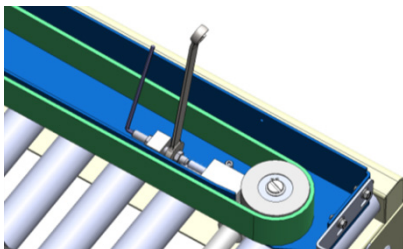


Figure 72: Tighten Belt Tension Bolt

5. Proper belt tension is achieved when a 5 lb. (2.2kg) pull force is used to create a 1 in. (25mm) gap, as shown in the middle of the drive base.

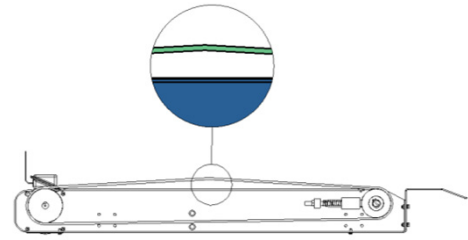


Figure 73: Proper Belt Tension

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.

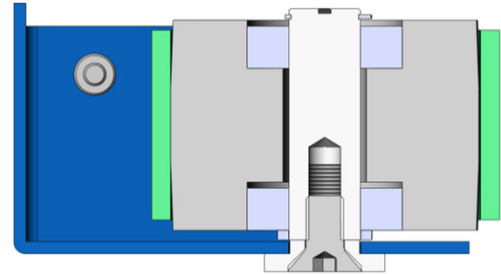


Figure 74: Self-Center Pulley

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

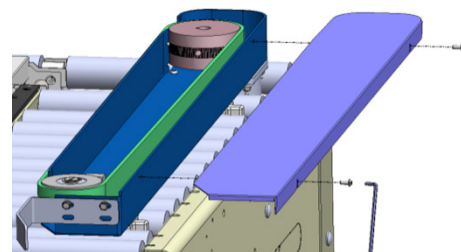


Figure 75: Drive Base Cover

MAINTENANCE

Drive Belt Adjustment

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

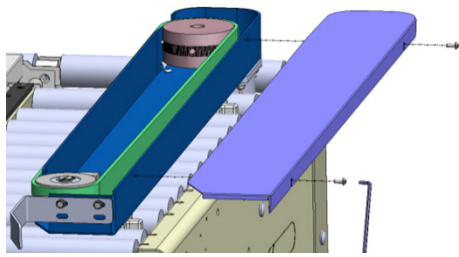


Figure 76: Drive Base Cover

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

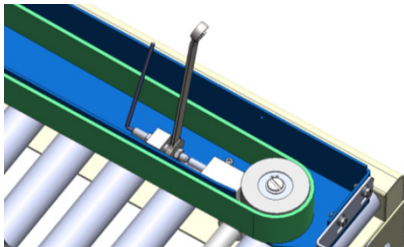


Figure 77: Tighten Belt Tension Bolt

3. Proper belt tension is achieved when a 5 lb. (2.2kg) pull force is used to create a 1 in. (25mm) gap, as shown in the middle of the drive base.

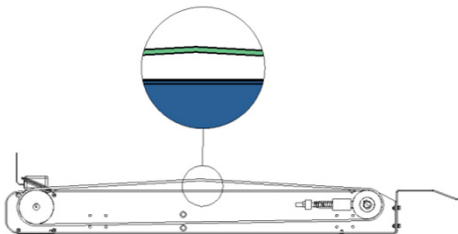


Figure 78: Proper Belt Tension

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.

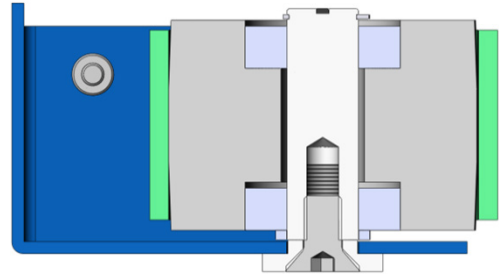


Figure 79: Self-Center Pulley

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

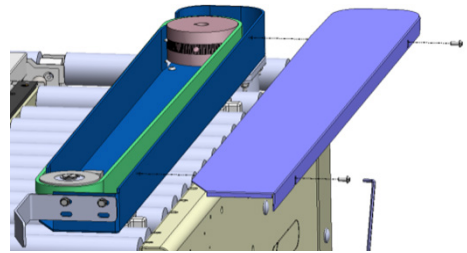
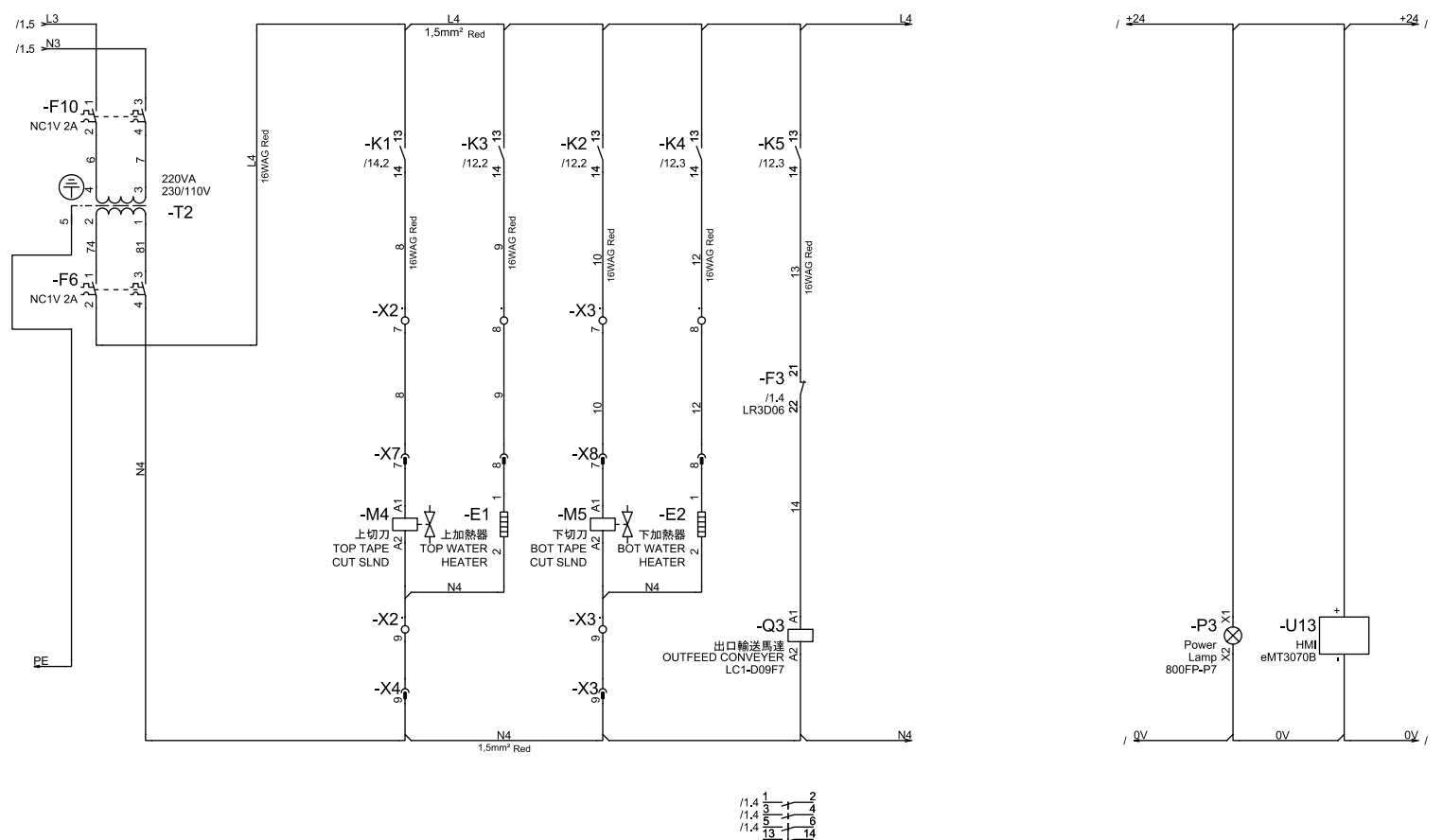
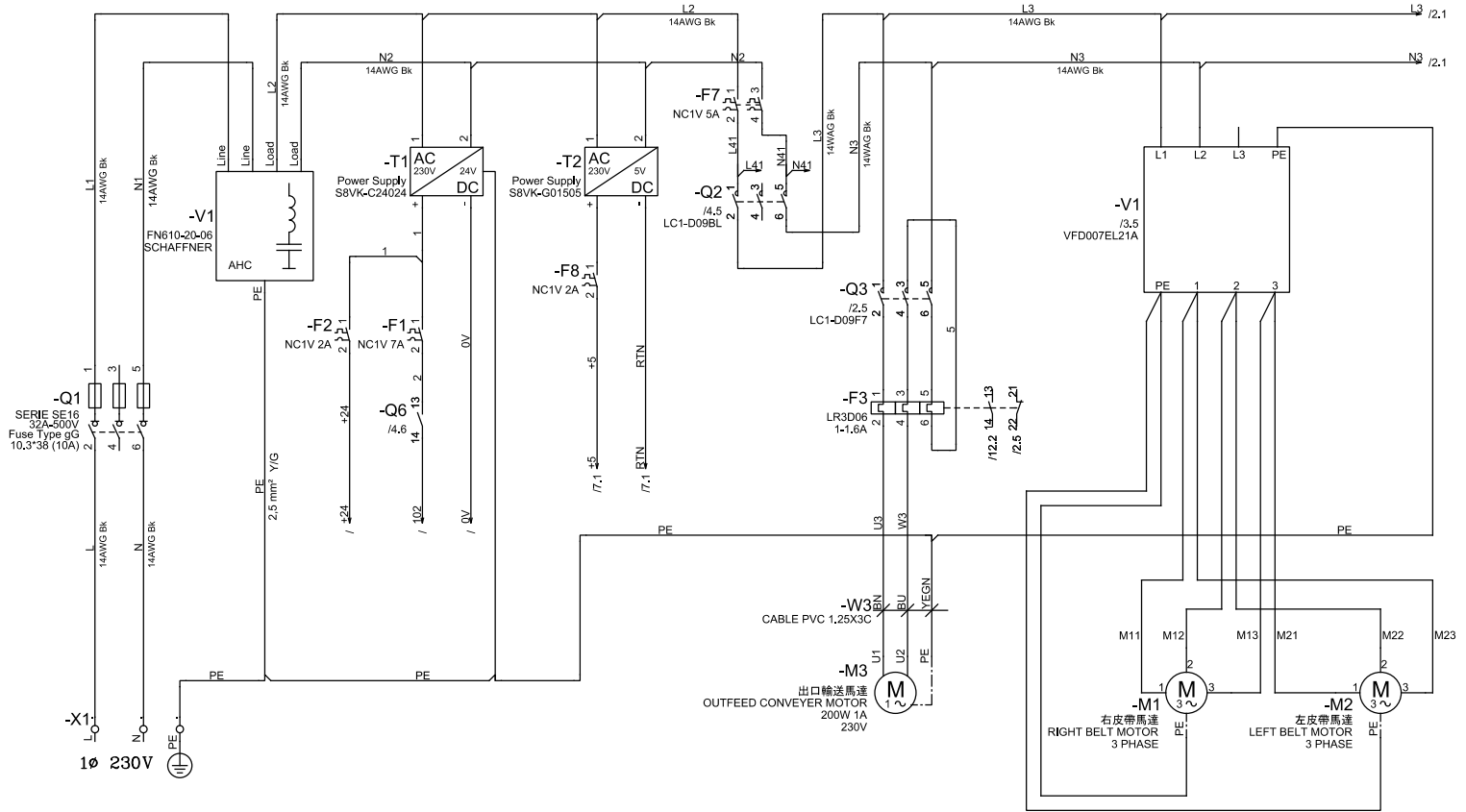


Figure 80: Drive Base Cover

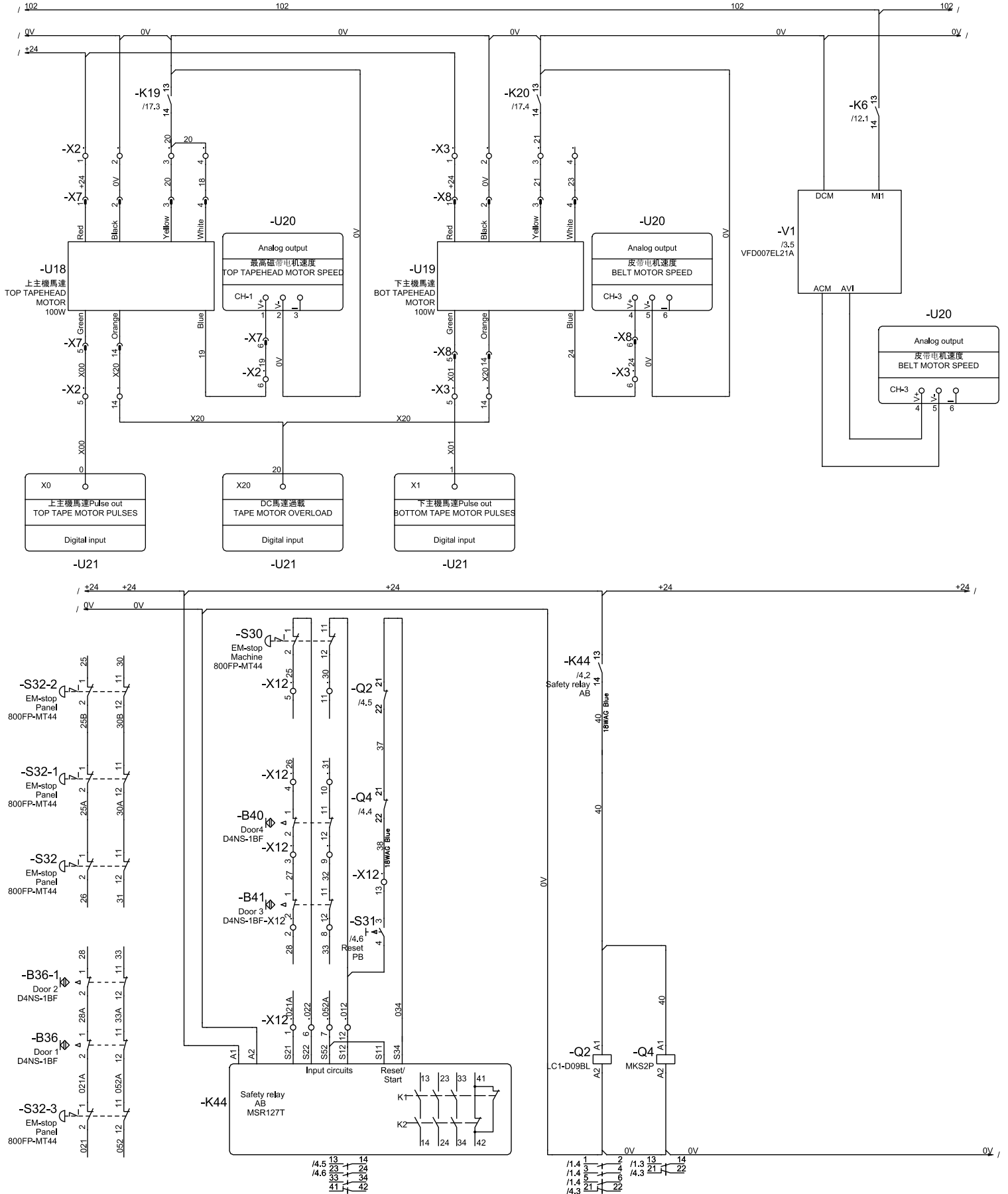
APPENDIX A

Electrical Drawing



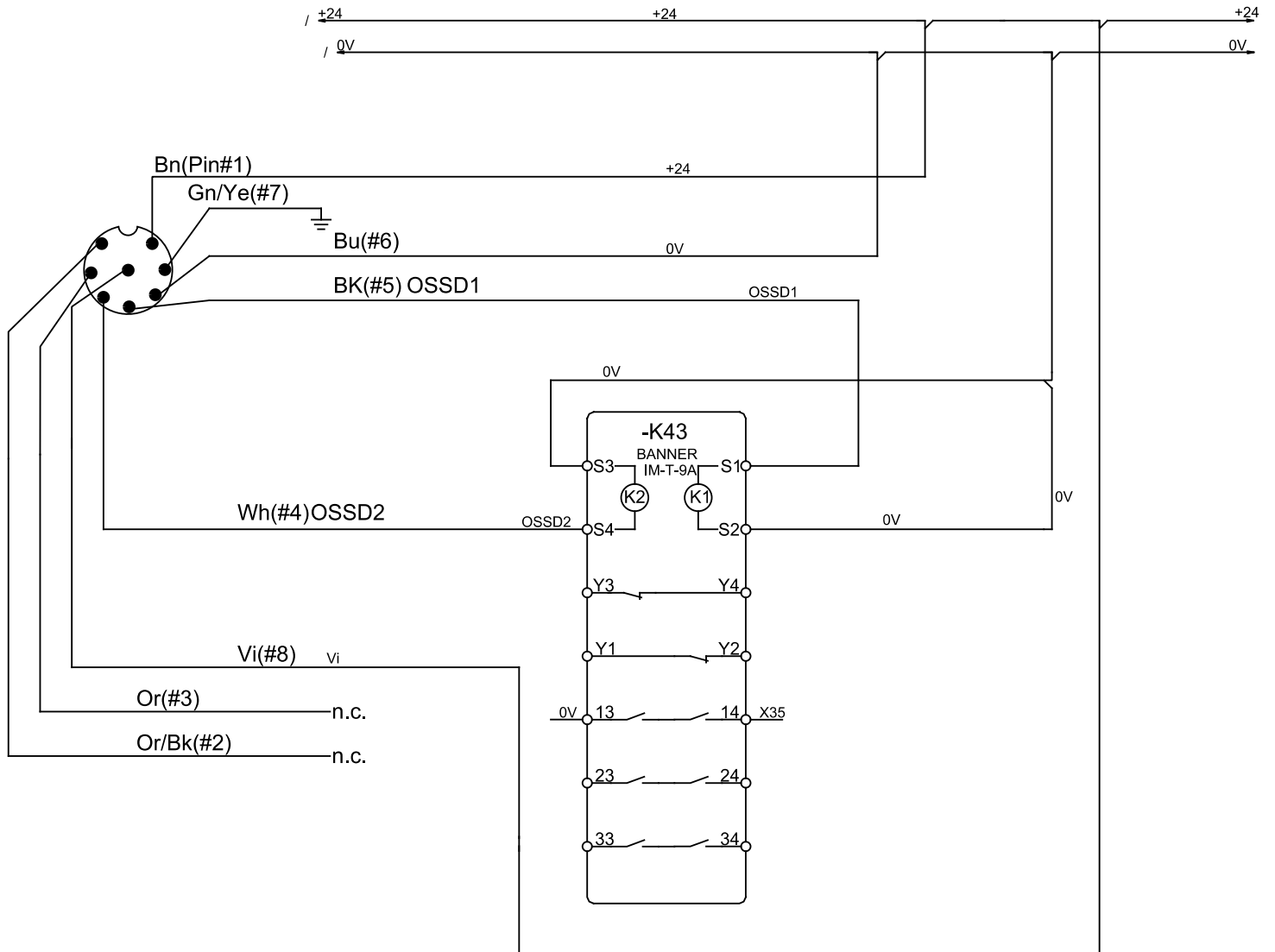
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Electrical Drawing



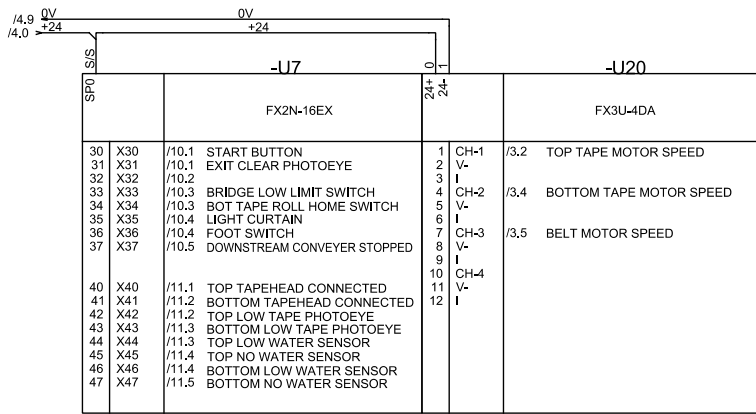
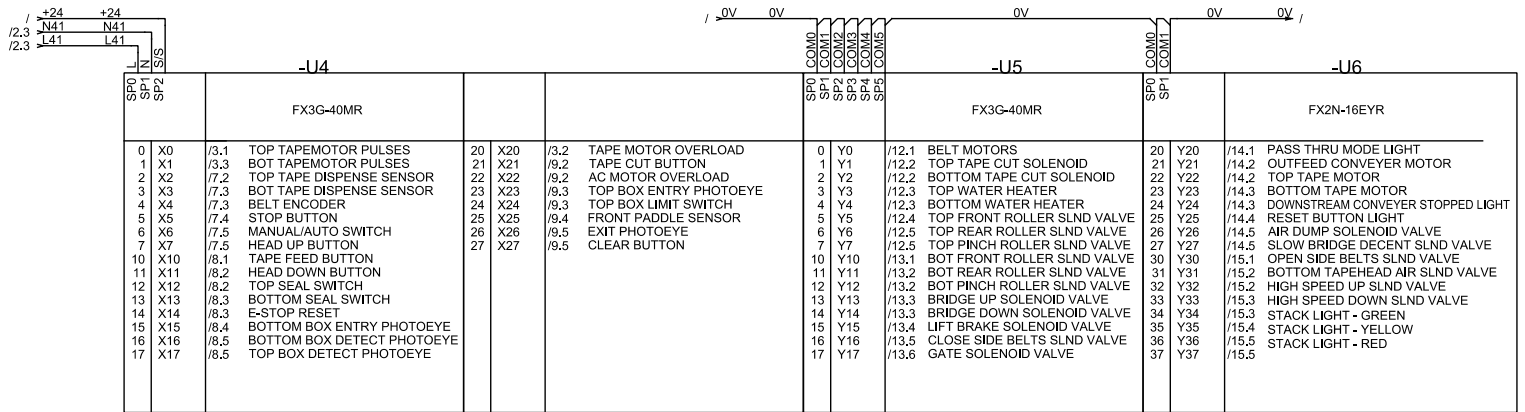
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Electrical Drawing



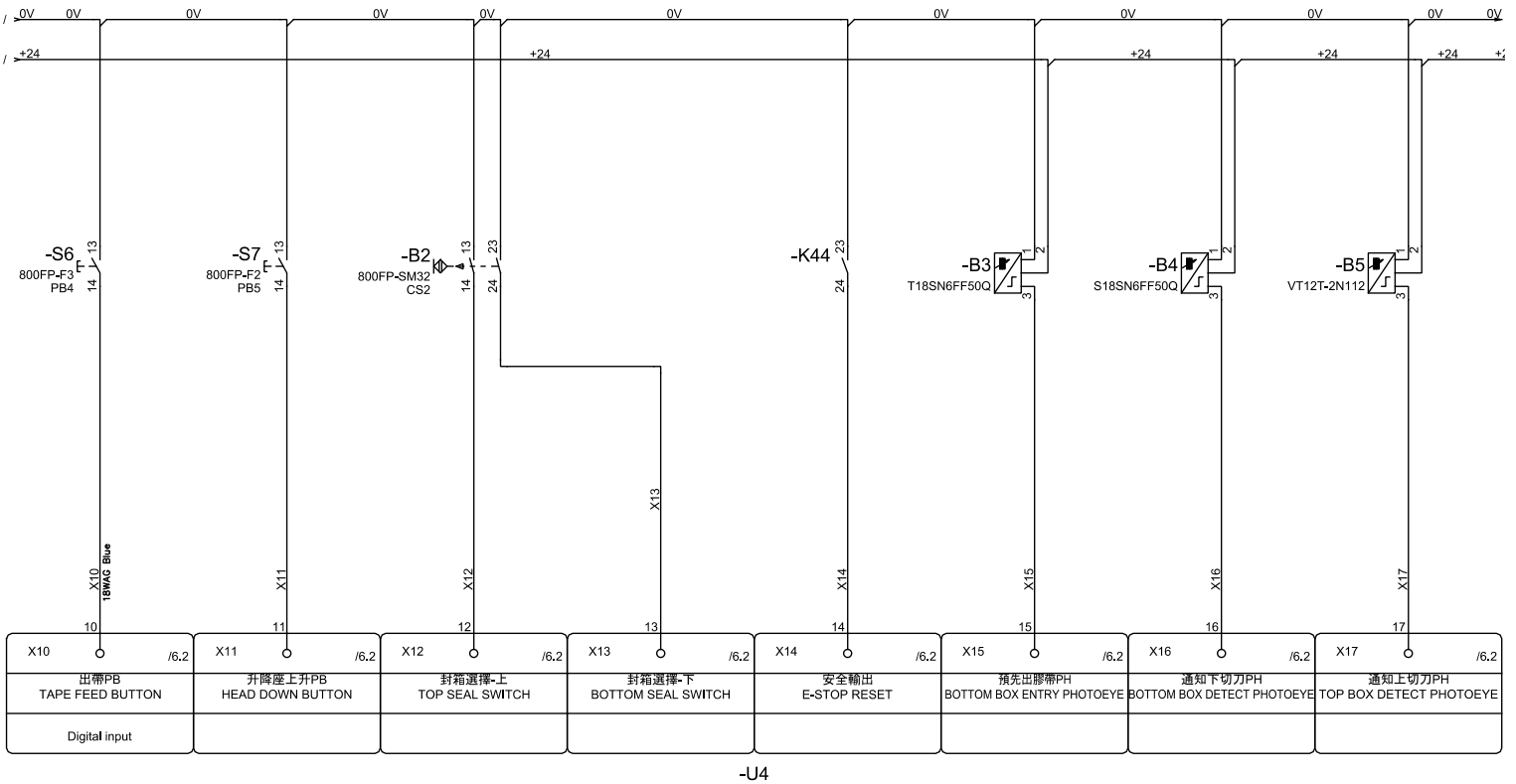
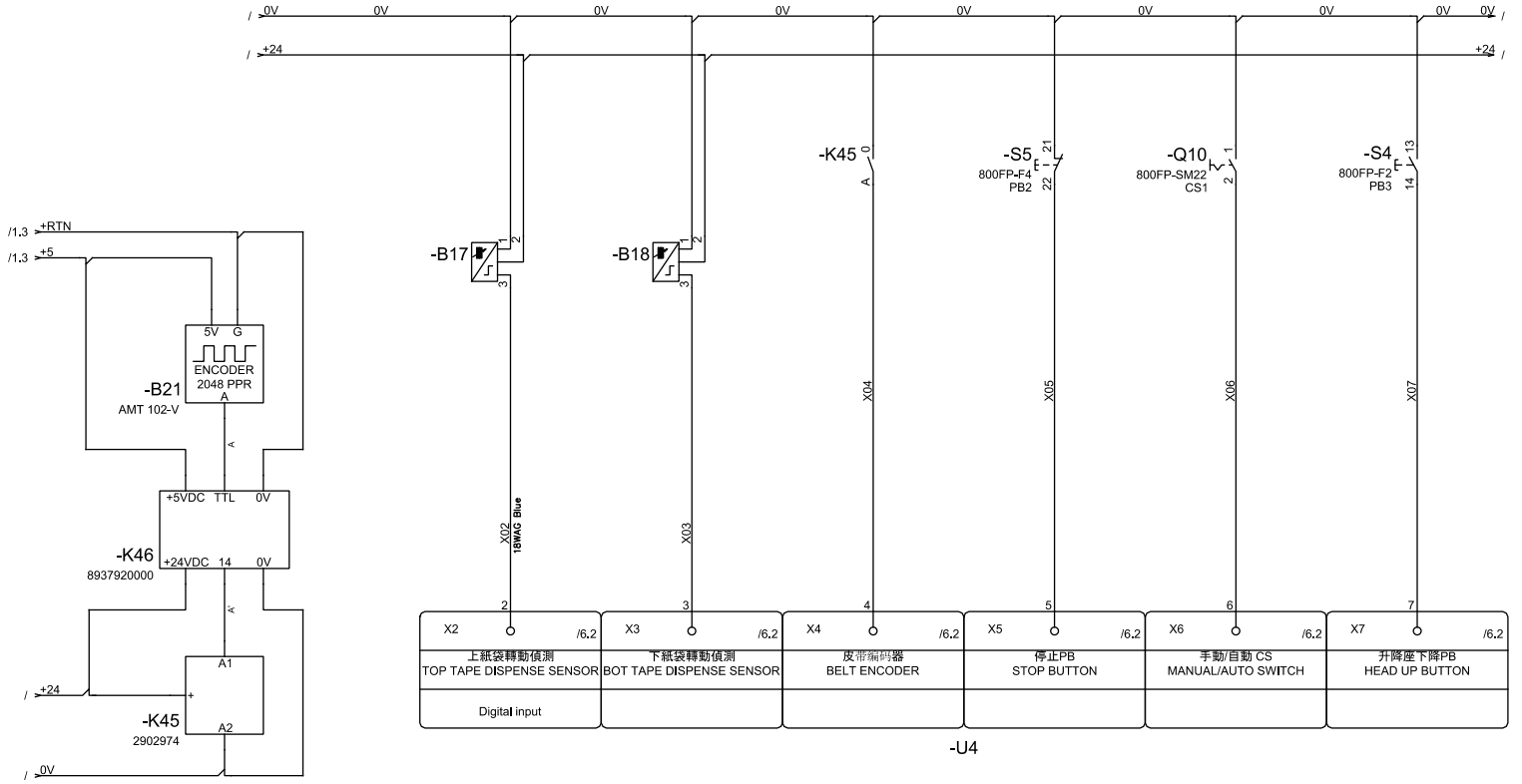
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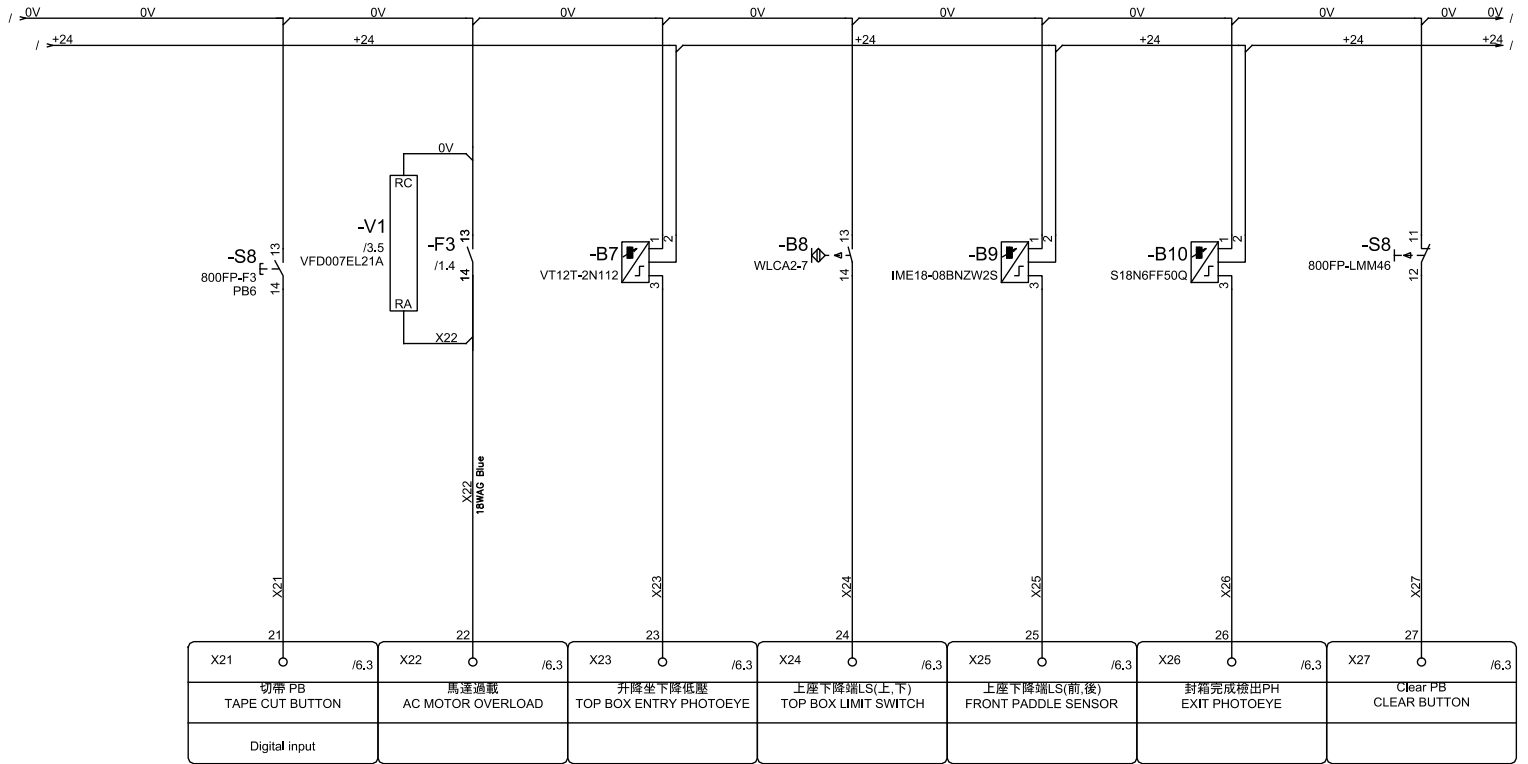
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Electrical Drawing

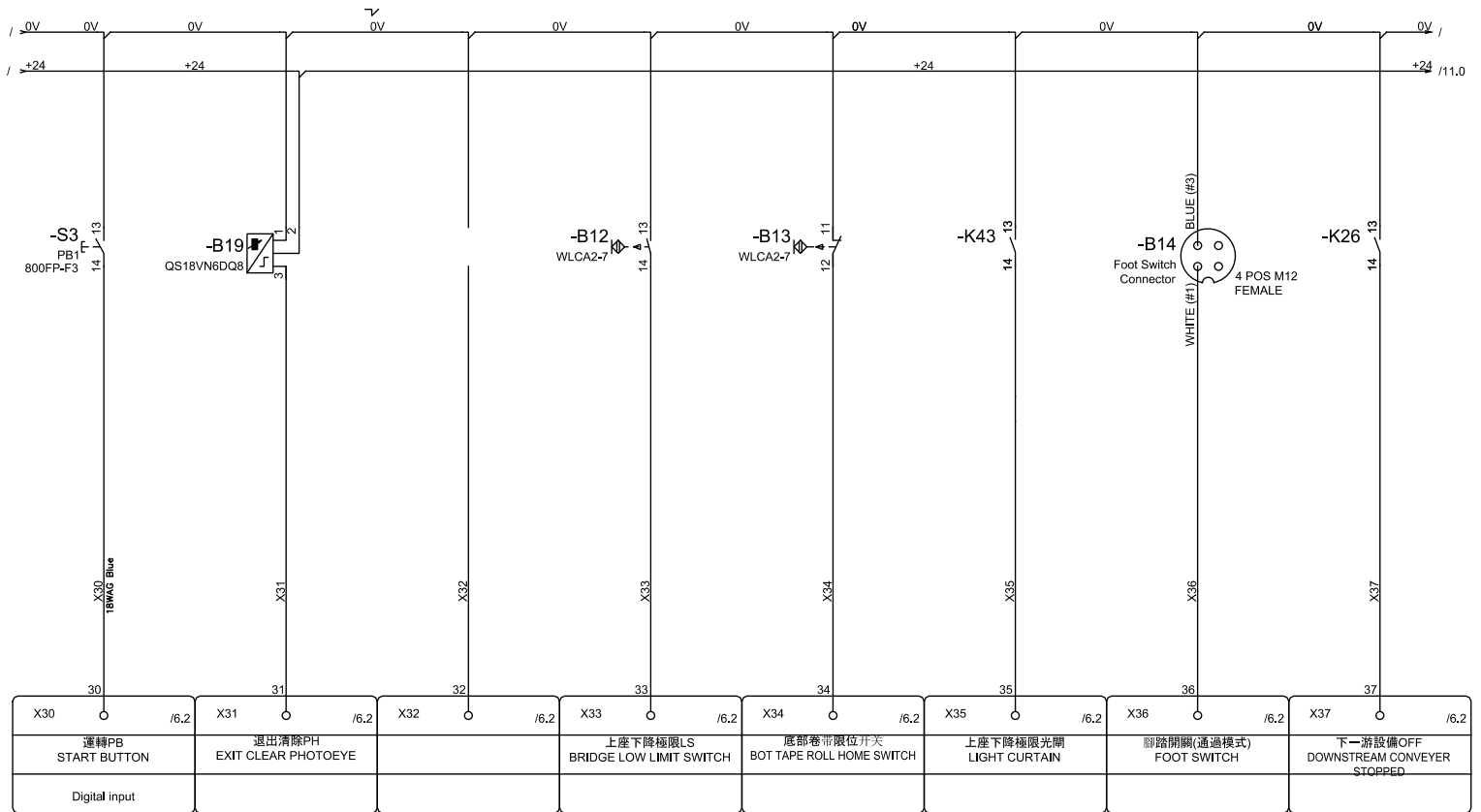


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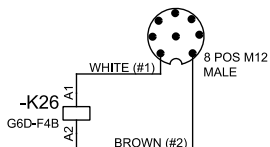
Electrical Drawing



-U4

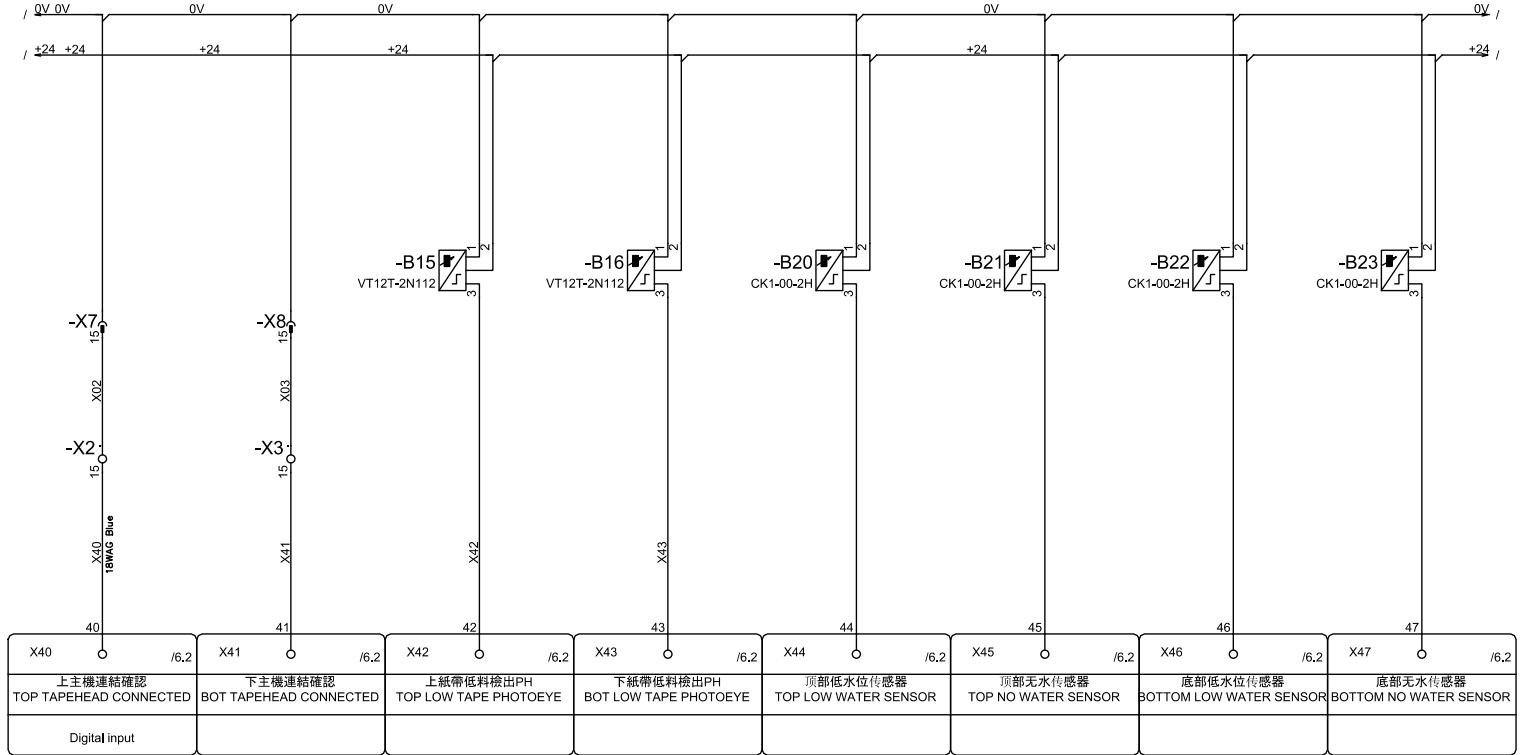


-U7



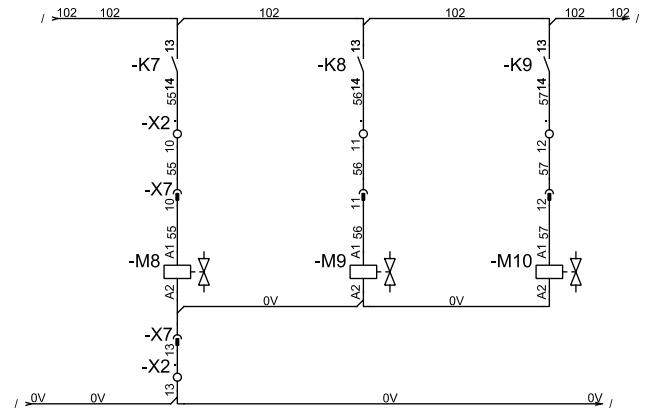
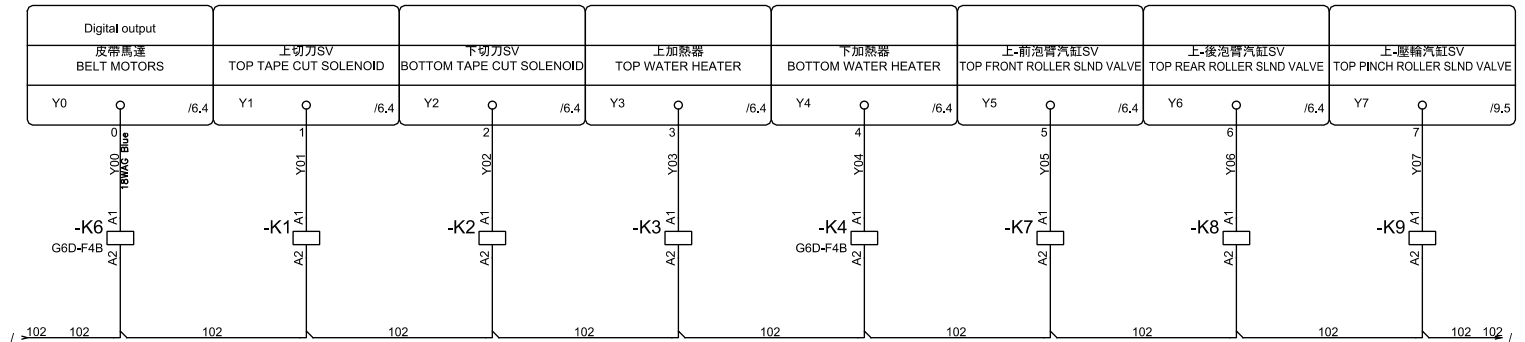
APPENDIX A

Electrical Drawing



-U7

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/2,2 13 14

/2,3 13 14

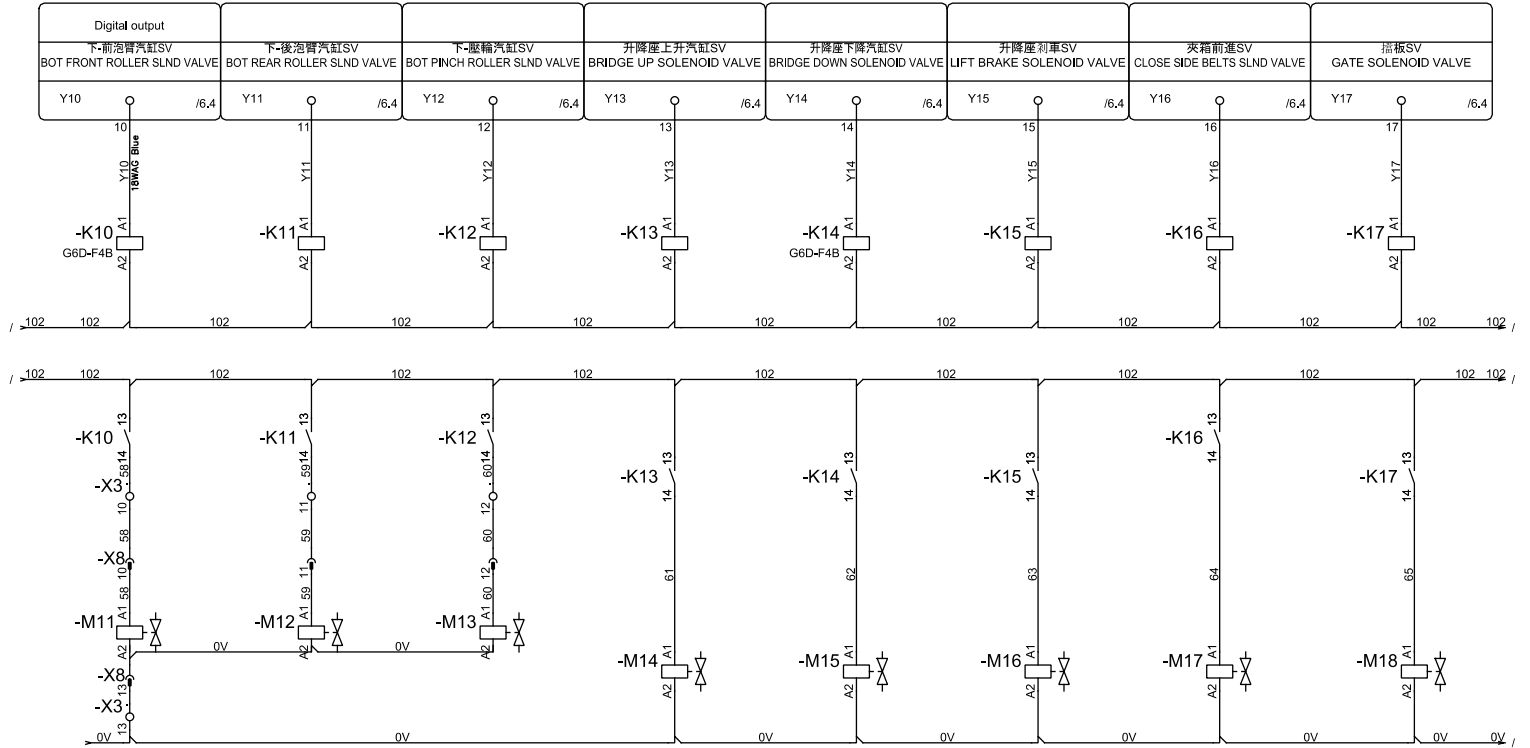
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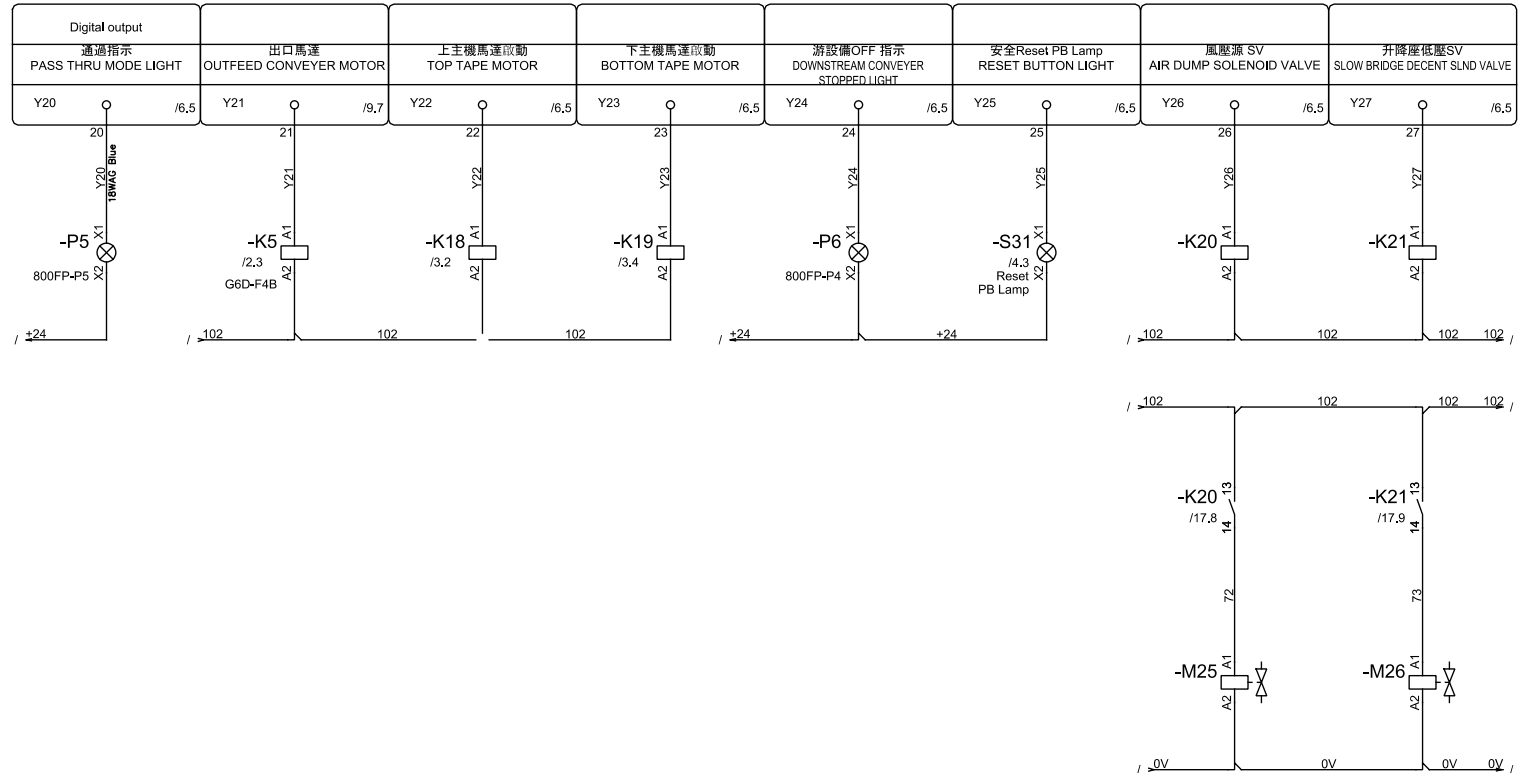
APPENDIX A

Electrical Drawing

-U5



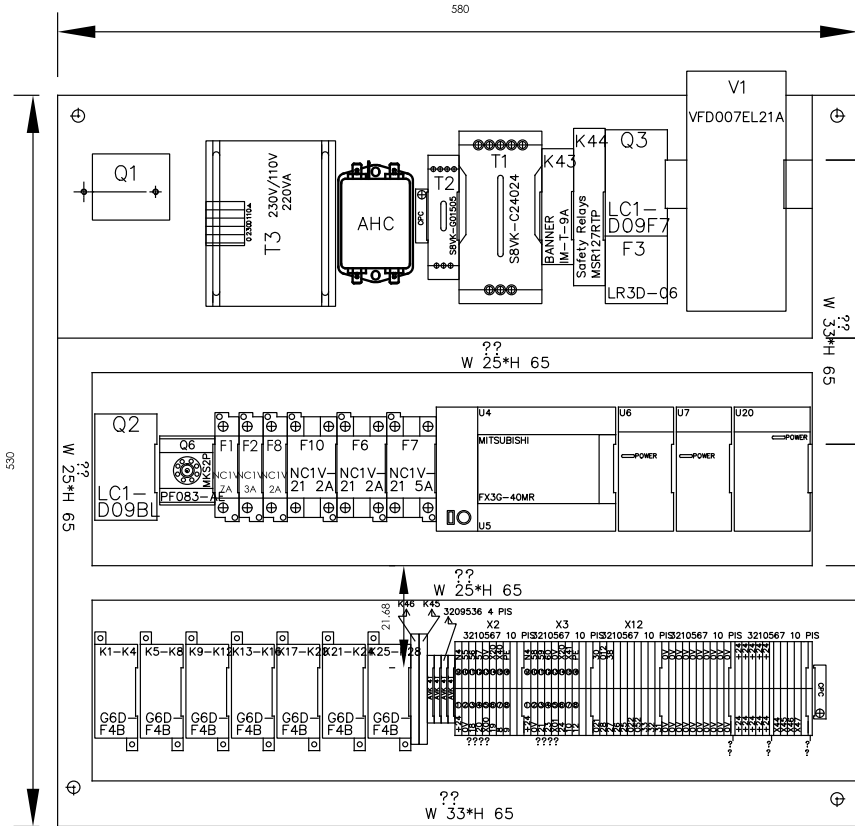
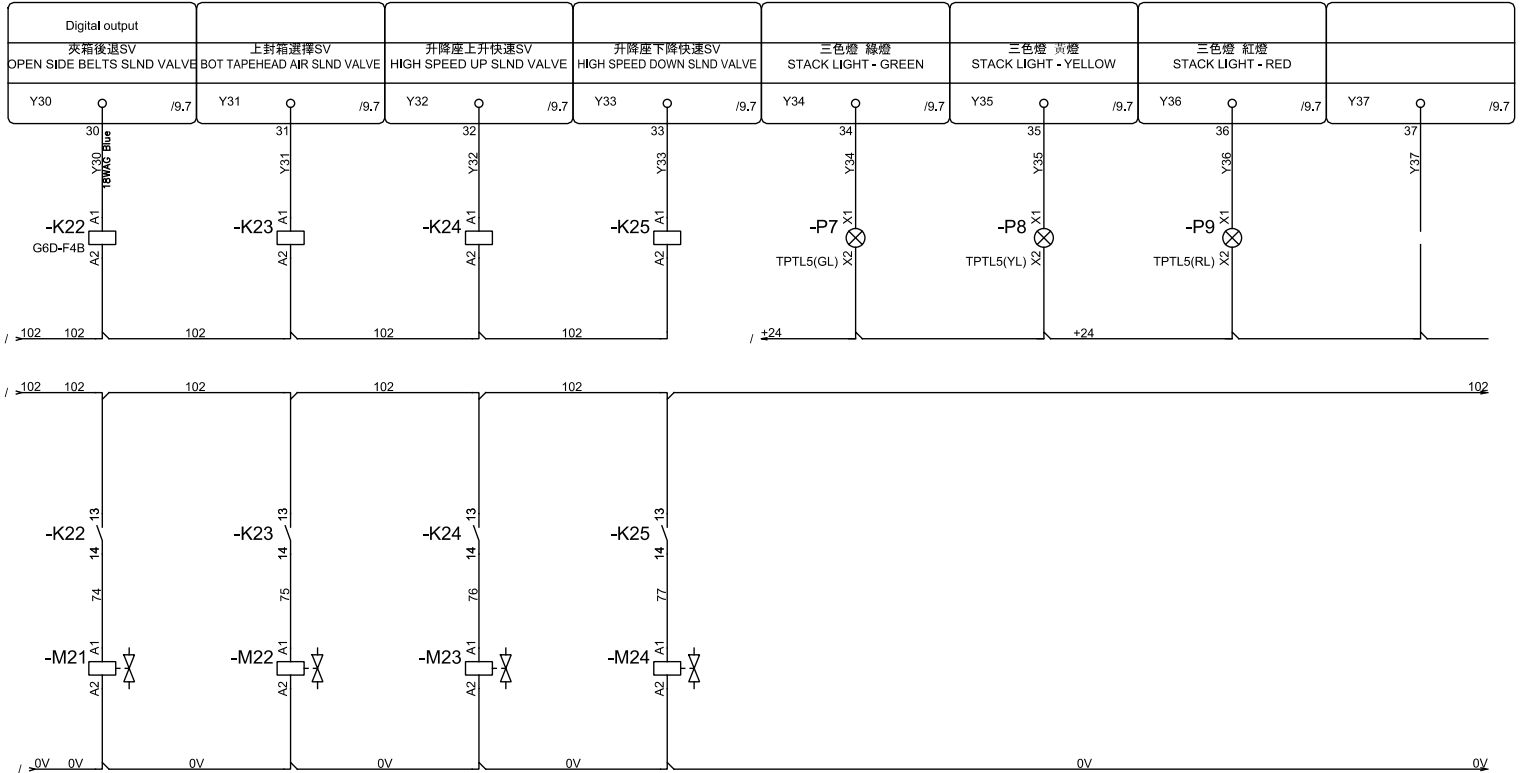
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APPENDIX A

Electrical Drawing

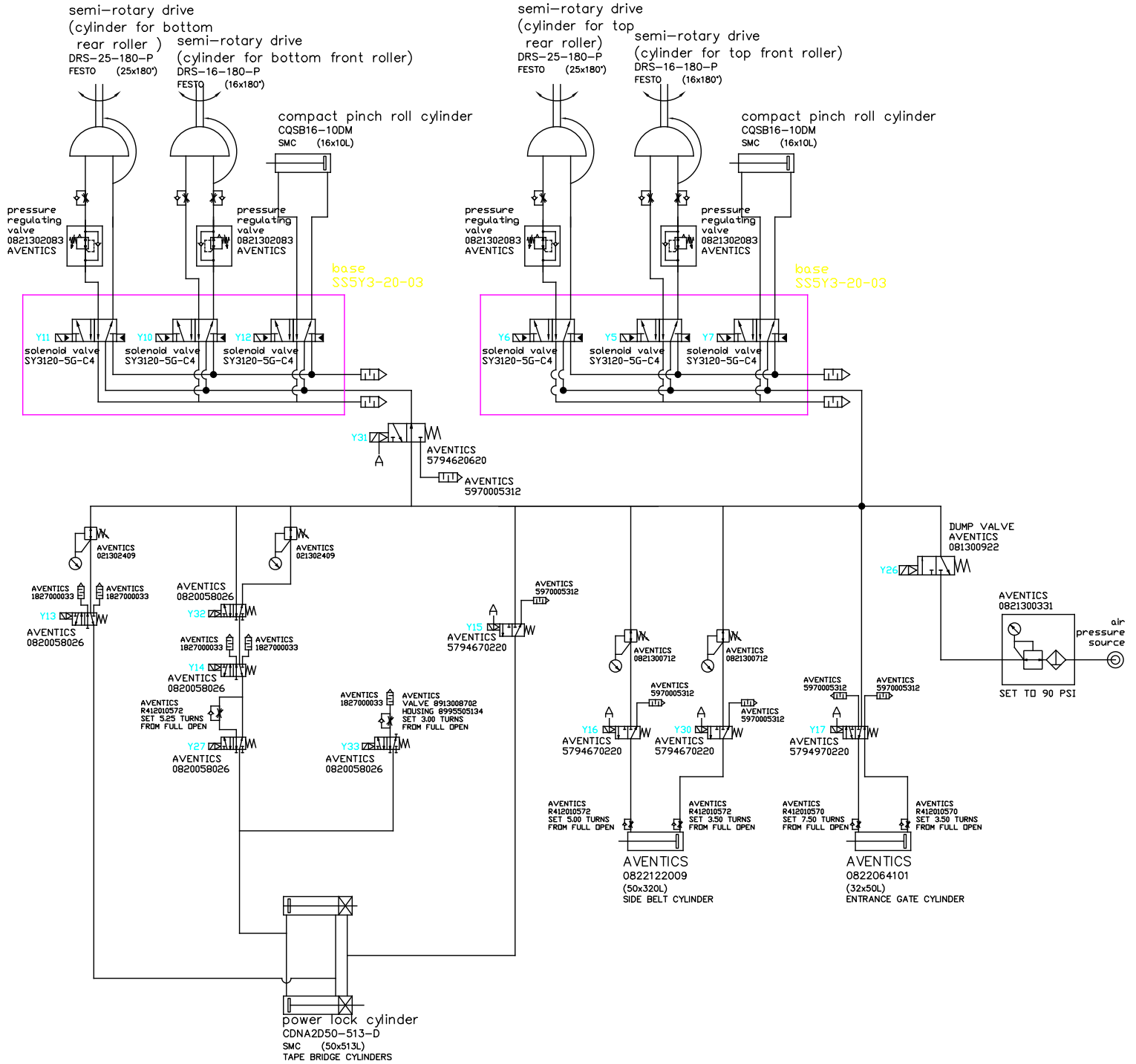
-U6



??	??	??	??
Q1	Main Switch	SE163003B + COD.TF3233	IOVENZANA
	Fuse X 2	10*38 10A	DEMEX
F1	Circuit Protector	NC1V-1100 7A	idec
F2	Circuit Protector	NC1V-1100 3A	idec
F6,F10	Circuit Protector	NC1V-2100 2A	idec
F7	Circuit Protector	NC1V-2100 7A	idec
F8	Circuit Protector	NC1V-1100 2A	idec
U4,U5	PLC	FX3G-40MR	mitsubishi
U6	PLC Extend	FX2N-16EX	mitsubishi
U7	PLC Extend	FX2N-16EYR	mitsubishi
U20	PLC Module	FX3U-4DA	mitsubishi
T1	Power Supply	S8VK-C24024	OMRON
T2	Power Supply	S8VK-G01505	OMRON
T3	Transformer	AC 220/110 V 220VA	Lce
AHC	Filter Unit	FN2010-20-06	SCHAFFNER
K1-K28	RELAY	G6D-F4B	OMRON
K43	Safety Module	IM-T-9A	BANNER
K44	Safety Module	MSR127RTP	AB
K45	Solid State Relay	2902974	PHOENIX CONTACT
K46	Solid State Relay	8937920000	WEIDMULLER
Q2	Magnet Contactor	LC1-D09BL DC24V	SCHNEIDER
Q3	Magnet Contactor	LC1-D09F7 AC110V	SCHNEIDER
F3	Overload Relay	LR3D-06 1-1.6A	SCHNEIDER
Q6	Relay	MKS2P DC24V	OMRON
	Relay base	PF083-AE	OMRON
V1	VFD	VFD007EL21A	DELTA
	TB	PT 2,5 32 10 567	PHOENIX CONTACT
	??TB	PT 2,5 32 09 536	PHOENIX CONTACT

APPENDIX A

Pneumatic Drawing



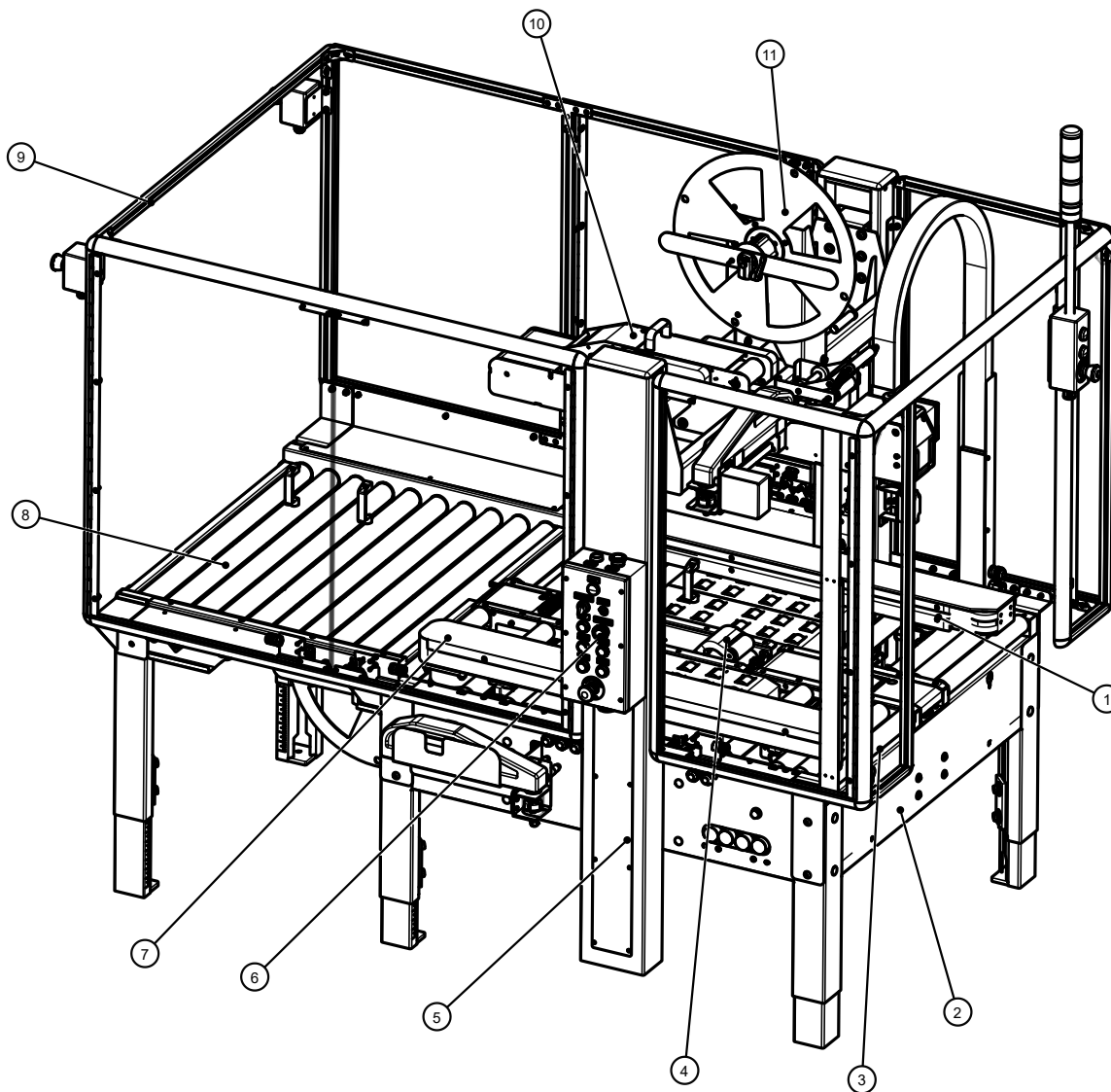
APPENDIX B

Parts Listing

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APPENDIX B

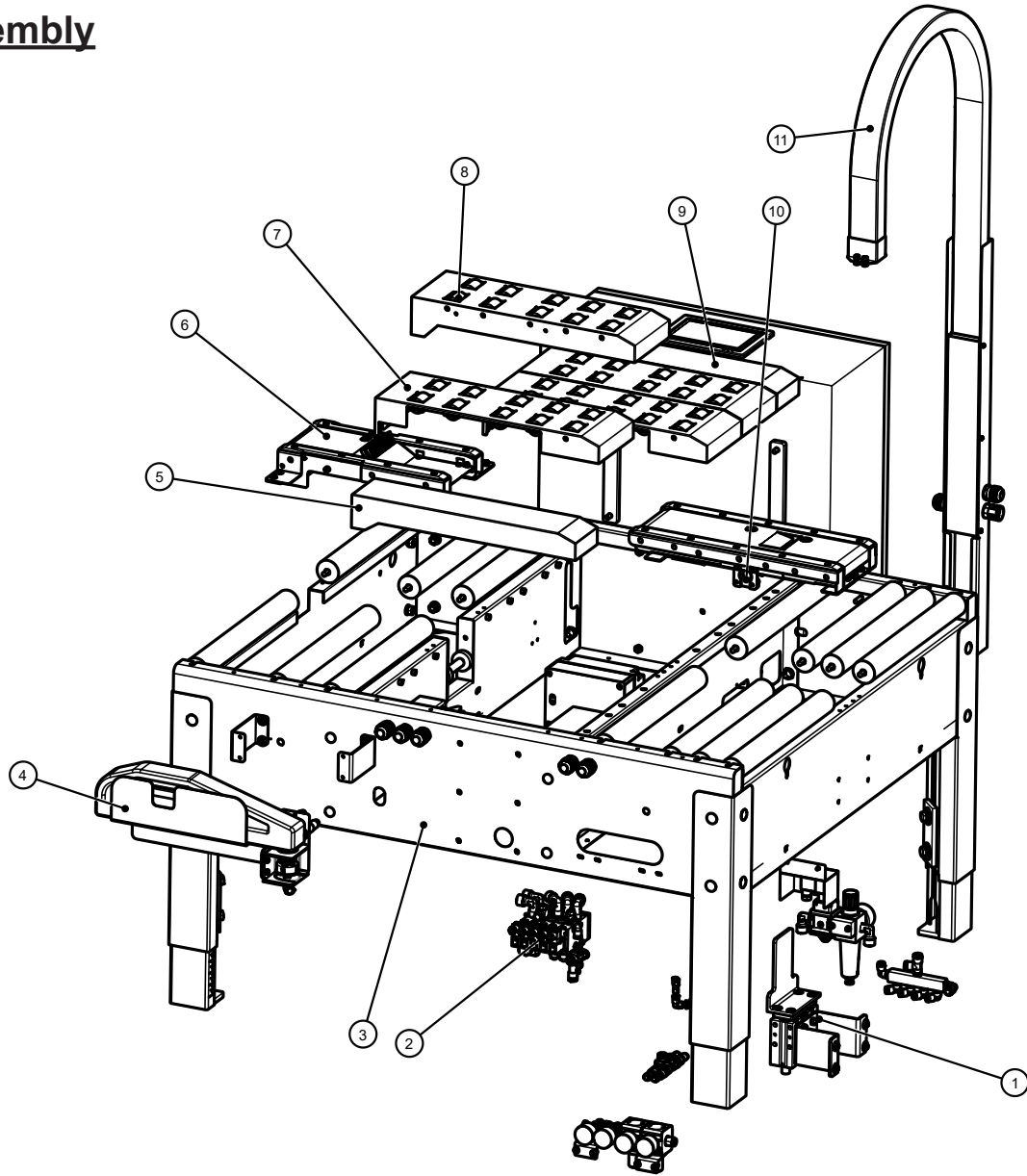
RSA 3023-WAT HS



BOM ID	Part# (config)	Description (config)	Qty
1	USM0921	DRIVE BASE ASS'Y R.H.	1
2	USM0898	BASE ASSEMBLY	1
3	USM0929	FRONT GUARDING ASSEMBLY	1
4	WST0017	BOTTOM WAT HS TAPE HEAD	1
5	USM0922	COLLUMN ASS'Y	1
6	UAM0518	RSA CONTROL BOX	1
7	USM0920	DRIVE BASE ASS'Y L.H.	1
8	USM0926	OUTFEED TABLE ASS'Y	1
9	USM0930	REAR GUARDING ASSEMBLY	1
10	WST0016	TOP WAT HS TAPE HEAD	1
11	USM0924	BRIDGE ASS'Y	1

APPENDIX B

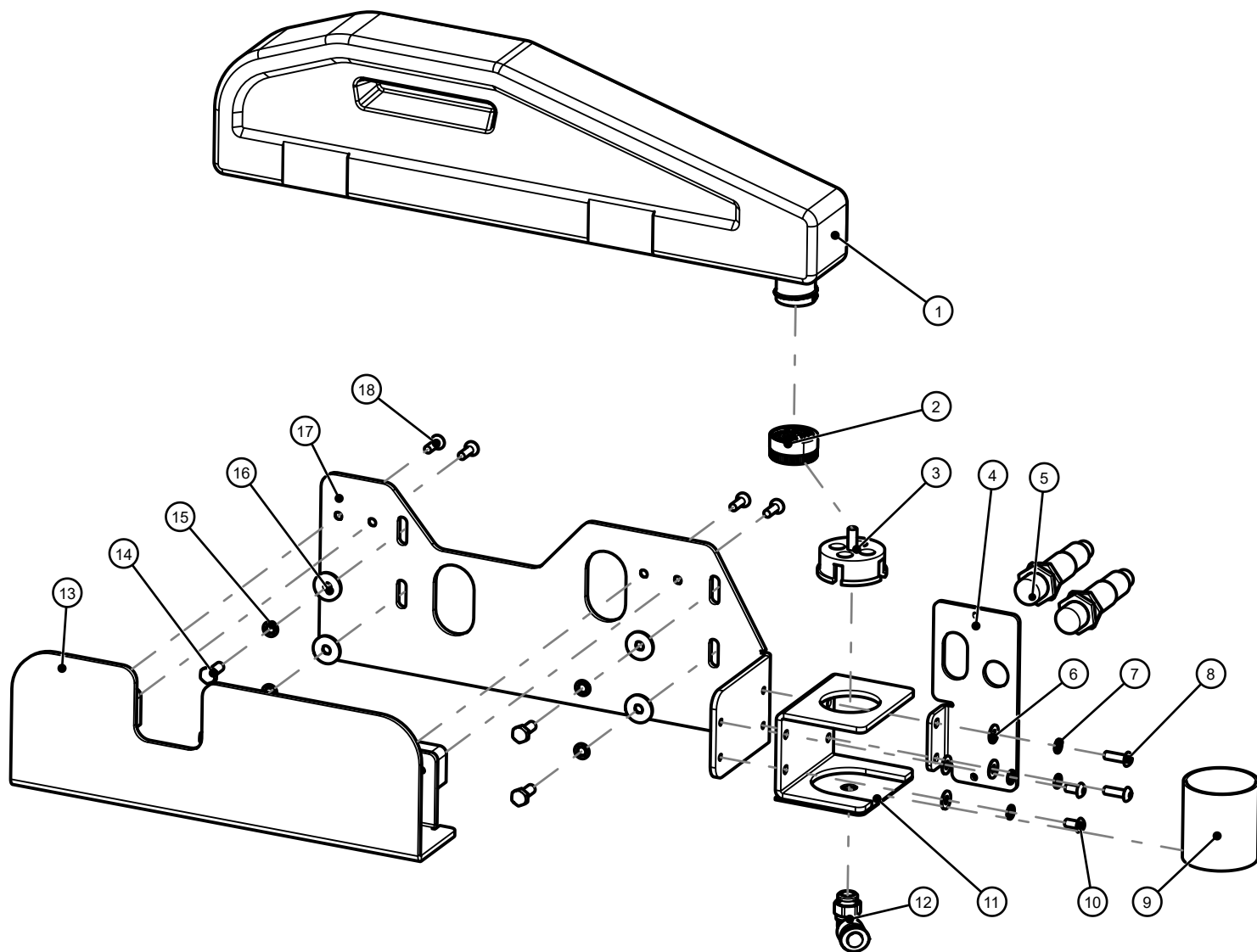
Base Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UAM0483	INLET STOP ASSEMBLY	1
2	UAM0606	PNEUMATIC ASSEMBLY	1
3	UAM0601	BASE FRAME, RSA3023-WAT HS	1
4	UAM0605	WATER BOTTLE UNIT ASSEMBLY	1
5	UPM6679	SIDE COVER	1
6	UAM0604	OUTLET TABLE ASSEMBLY	1
7	UAM0477	ROLLER ASSEMBLY, R.H.	2
8	UAM0474	ROLLER ASSEMBLY, L.H.	2
9	UPM6679	SIDE COVER	1
10	UAM0602	INLET TABLE ASSY, RSA3023-WAT HS	1
11	UAM0607	CABLE TRAY ASSEMBLY	1

APPENDIX B

Pneumatic Assembly

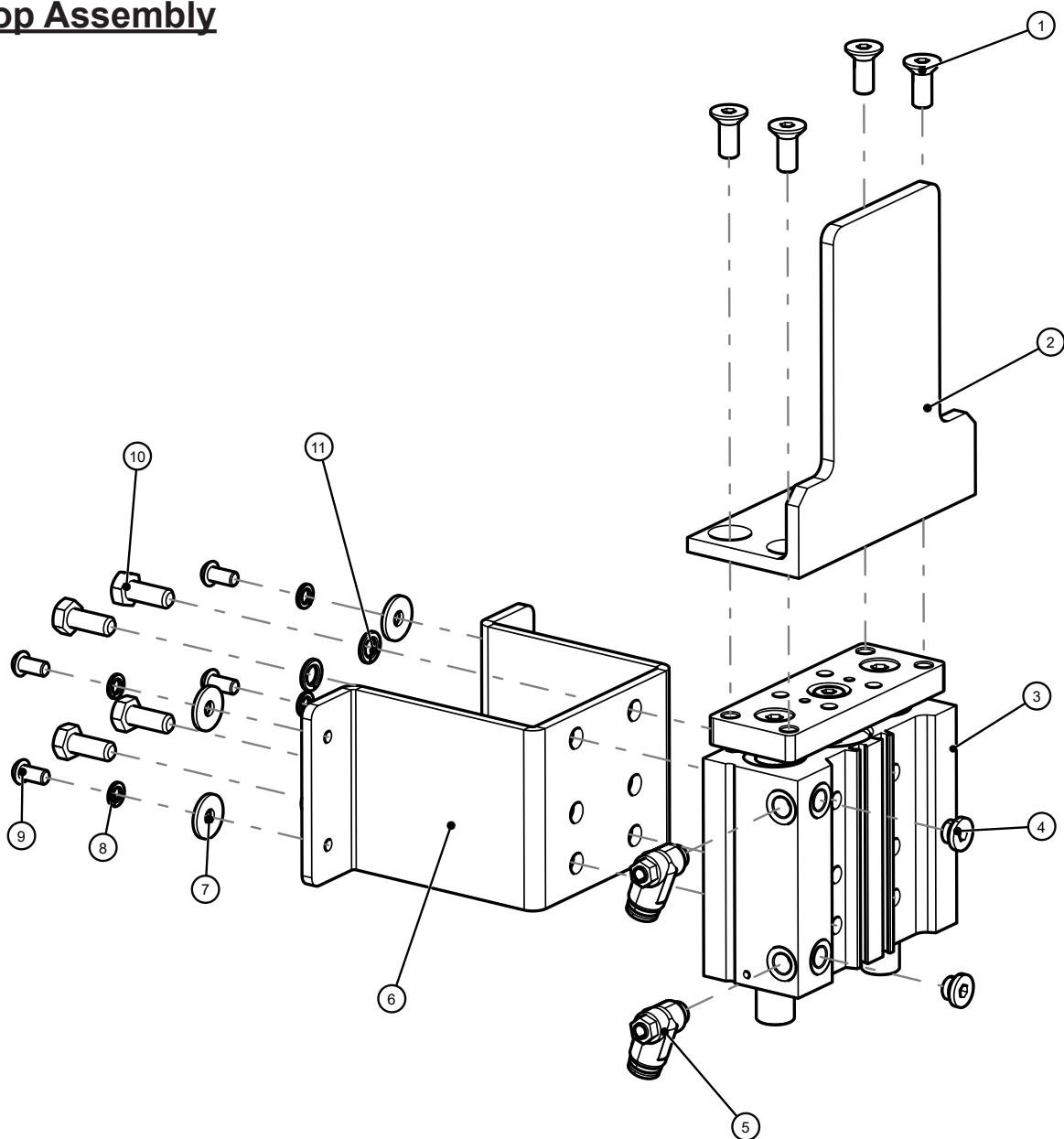


BOM ID	Part# (config)	Description (config)	Qty
1	WET0096	WAT BOTTLE	1
2	WET0123	WAT BOTTLE CAP	1
3	UPM5901	PLUNGER - BP CAP 2	1
4	UPM6734	WATER SENSOR BRACKET	1
5	UPM6735	CAPACITIVE PROXIMITY SENSOR	2
6	UF0263	M5-12-1.0 FW SS	4
7	UF7021	M5 SS LW	4
8	UF7035	BHCS M5-0.8×16 SS	2
9	UPM4946	RESERVOIR CUP	1
10	UF3283	BHCS M5-0.8×10 SS	2

BOM ID	Part# (config)	Description (config)	Qty
11	UPM4945	CUP HOLDER	1
12	UPM6428	90° 10mm-8mm QUICK CONNECTOR	1
13	UPM4944	HOLDER BRACKET	1
14	UF0454	HHCS M6-1.0×16	4
15	UF6363	M6 LW	4
16	UF0103	M6-19-2.0 FW	4
17	UPM6149	BOTTLE HOLDER BRACKET	1
18	UF5404	FHCS M5-0.8×16	4

APPENDIX B

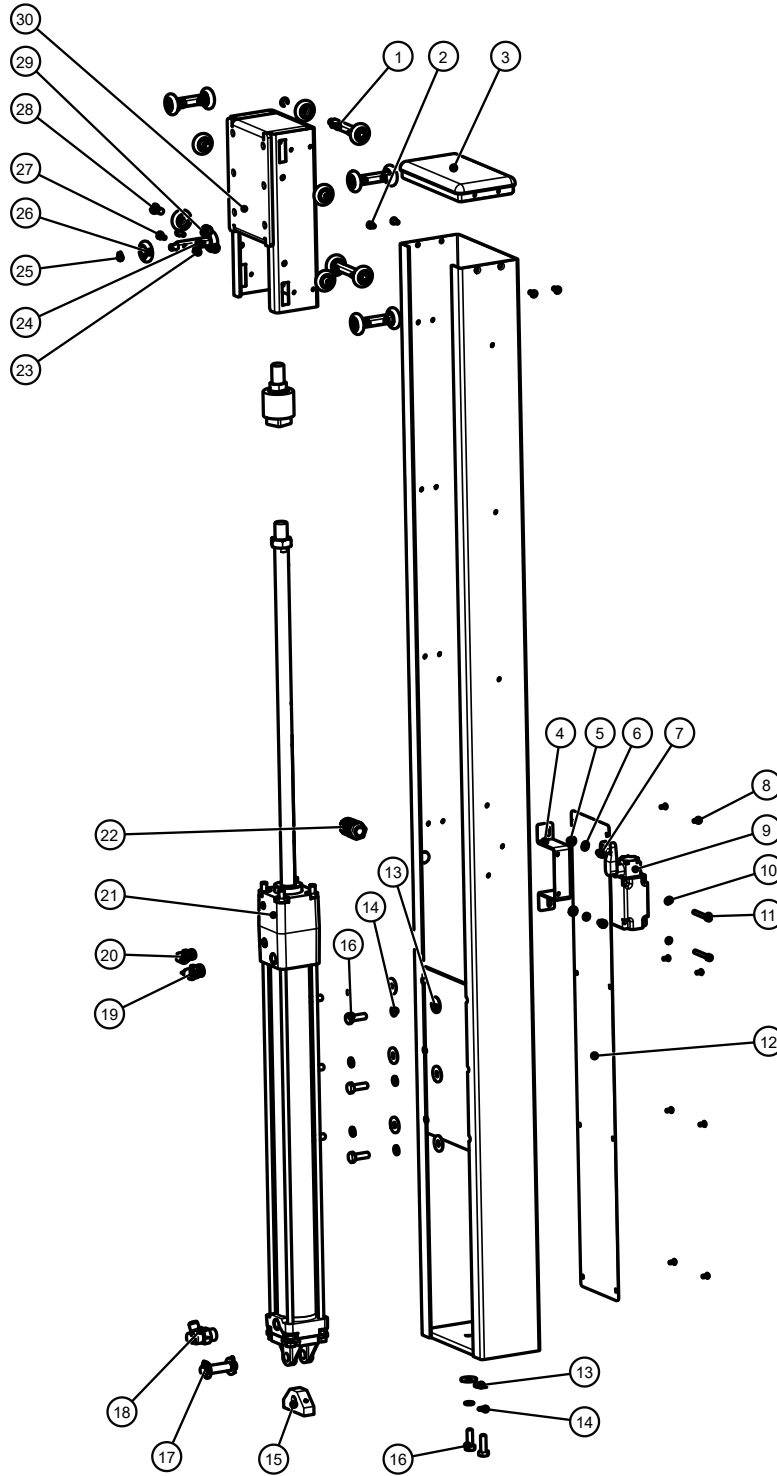
Inlet Stop Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	M8-1.25×20L	M8-1.25-FHCS	4
2	UPM7513	GATE FOR BOSCH GUIDED CYL	1
3	UPM5972	CYLINDER W/ GUIDE ROD	1
4	UPM5974	PLUG, G1/8	2
5	UPM5973	FLOW CONTROL, 1/8	2
6	UPM5971	STOP BRACKET	1
7	M6-19-2.0	M6 FW	4
8	M6	M6 LW	4
9	M6-1.0×12L	M6-1.0-BHCS	4
10	M8-1.25×20L	M8-1.25-HHCS	4
11	M8	M8 LW	4

APPENDIX B

Column Assembly

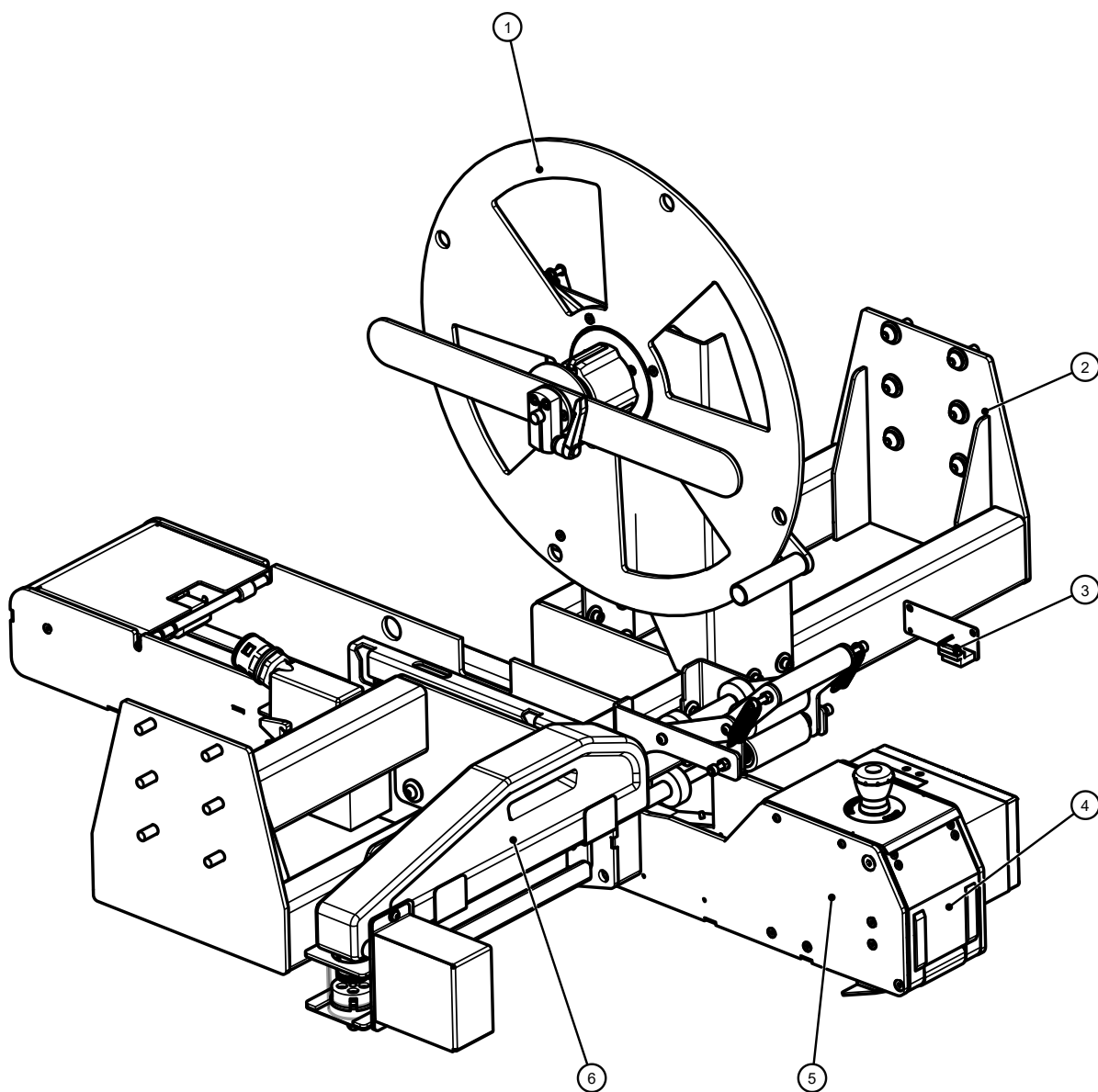


BOM ID	Part# (config)	Description (config)	Qty
1	UPM4964	SHAFT, dia 8, 92 L	2
2	UF5400	FHCS M5-0.8×12	4
3	UPM4960	COLUMN CAP	1
4	UPM6714	MICRO SWITCH BRACKET	1
5	UF0127	FW M6-13-1.0	2
6	UF6363	M6 LW	2
7	UF0086	SHCS M6-1.0×8	2
8	UF3685	BHCS M4-0.7×8	8
9	UPM6717	LIMIT SWITCH	1
10	UF7023	M5 LW	2
11	UF4304	SHCS M5-0.8×40	2
12	UPM4963	PLATE	1
13	UF0113	FW M8-23-2.0	8
14	UF0867	M8 LW	8
15	UPM6713	HOLDING BLOCK	1
16	UF6310	HHCS M8-1.25×25	7

BOM ID	Part# (config)	Description (config)	Qty
17	UPM6716	CYLINDER PIN	1
18	UPM6345	AIR CYLINDER PNEUMATIC COUPLER, SMC	1
19	UPM6345	AIR CYLINDER PNEUMATIC COUPLER, SMC	1
20	UPM6344	AIR CYLINDER PNEUMATIC COUPLER, SMC	1
21	UPM9147	POWER LOCKING CYLINDER	1
22	UPM6718	CABLE GLANDS	1
23	UF5927	CW M5	12
24	UPM4965	SHAFT, dia 8, 74 L	4
25	UF3818	EXT. RETAINING RING 8mm	12
26	UPM5801	ROLLER WHEEL	16
27	UF9154	SHCS M5-0.8×12	12
28	UF1318	BHCS M8-1.25×20	4
29	UPM4961	SPACER	4
30	UPM6712	COLUMN BLOCK	1

APPENDIX B

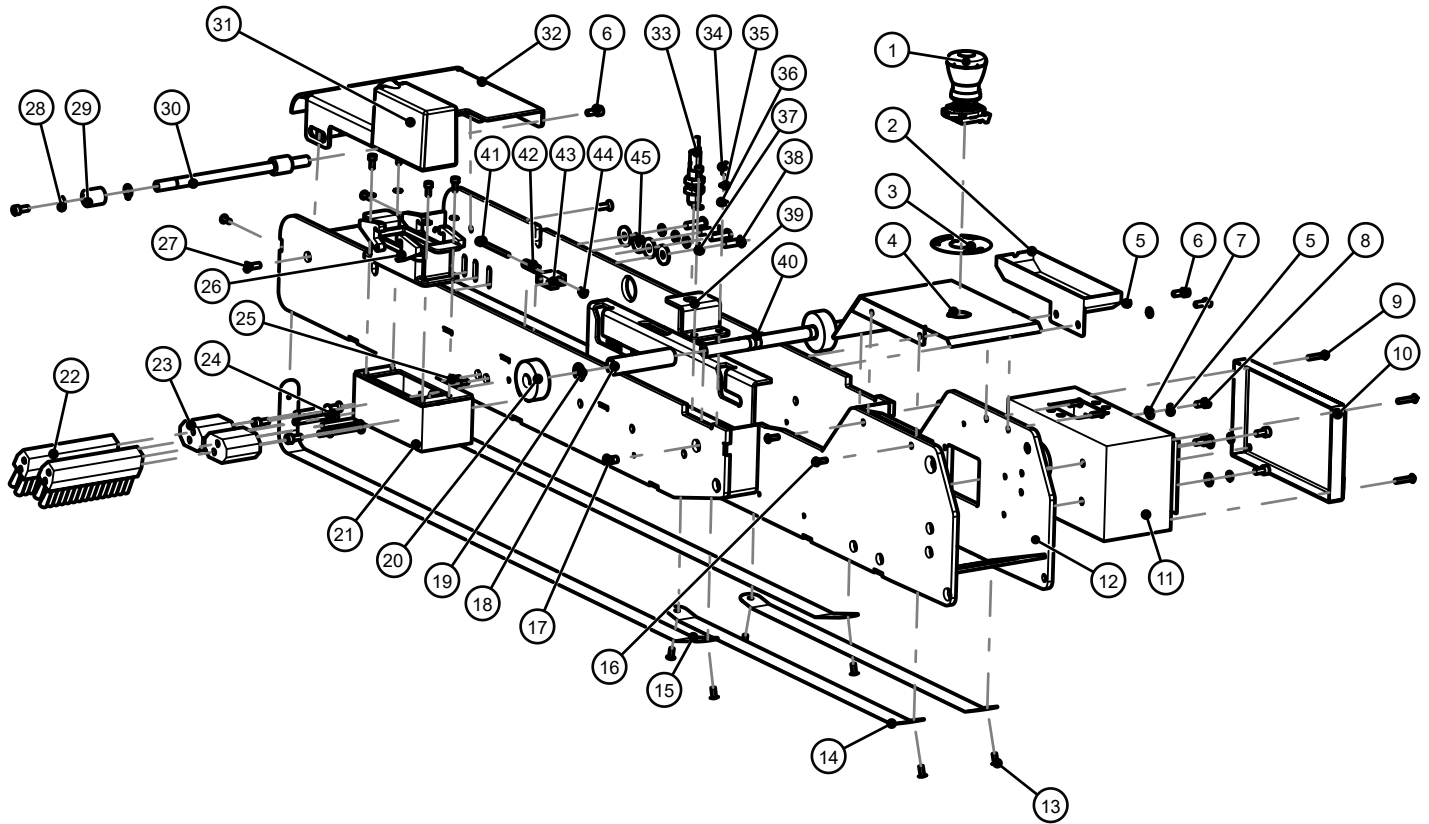
Bridge Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UAM0610	MANDREL ASS'Y	1
2	UAM0609	BRIDGE WELDMENT ASS'Y	1
3	UAM0612	CM SENSOR MOUNTING ASS'Y	1
4	UAM0611	SWITCH PLATE ASS'Y	1
5	UAM0608	TOP TAPE HEAD ASS'Y	1
6	USM0923	TOP T.H. WATER BOTTLE ASS'Y	1

APPENDIX B

Top Tape Head Box Assembly

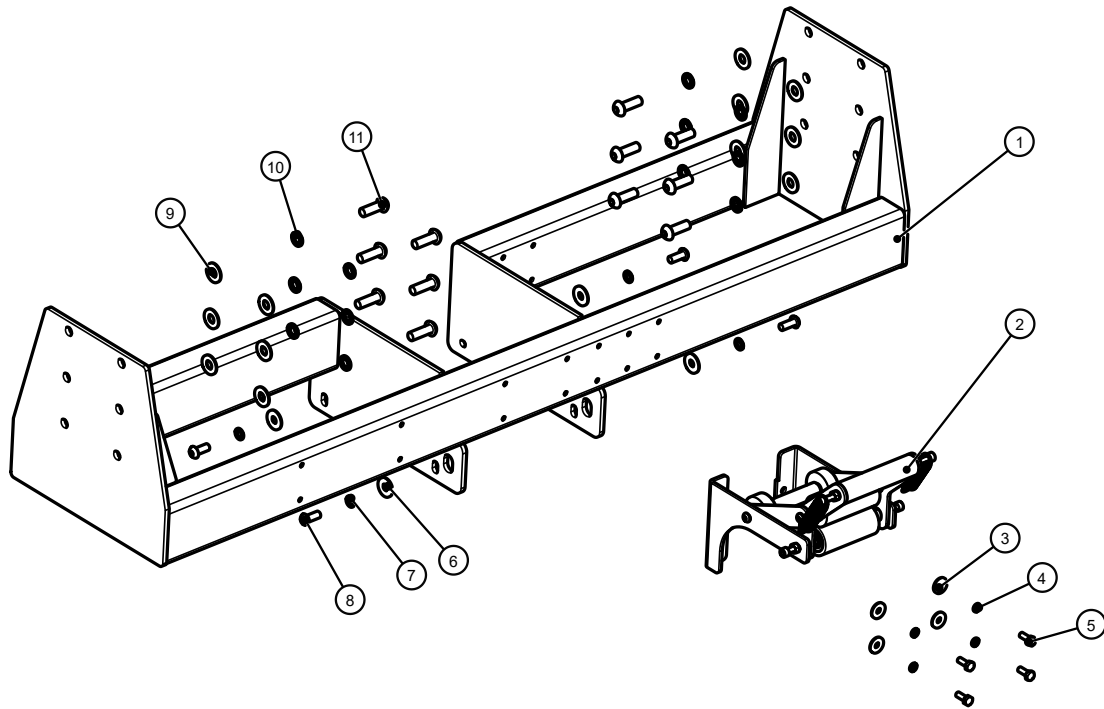


BOM ID	Part# (config)	Description (config)	Qty
1	UPM5733	E-STOP	1
2	UPM4990	OVER FLOW TRAY	1
3	UPM6045	E-STOP LABEL	1
4	UPM6720	ELECTRICAL SWITCH COVER	1
5	UF7023	M5 LW	8
6	UF9154	SHCS M5-0.8 X 12	6
7	UF1827	M5 FW	6
8	UF5201	M5-0.8-SHCS	4
9	UF4050EV	M4-0.7-BHCS	4
10	UPM6722	WIRING BOPX COVER	1
11	UPM6721	WIRING BOX	1
12	UPM6719	TOP TAPE HEAD FRAME ASS'Y	1
13	UF3691	Pop Rivet 4mm	8
14	UPM6790	PTFE STRIP 22 X 453	2
15	UPM6723	PTFE STRIP 22 X 841mm	2
16	UF3649	BHCS M4-0.7×12	4
17	UF1042	FHCS M6-1.0×12	2
18	UPM4933	ROLLER, dia 17, 72L	1
19	UPM4936	RUBBER RING	2
20	UPM4394	GUIDE ROLLER, 40OD	2
21	UPM4980	ELECTRICAL RECEPTACLE BASE	1
22	UPH4004	BRUSH	2
23	UPM4968	BRUSH ADAPTOR	2

BOM ID	Part# (config)	Description (config)	Qty
24	UF0074	FHCS M5-0.8×50	3
25	UF3714	FHCS M4-0.7×12	4
26	UPM4938	RECEPTACLE CONNECTION	1
27	UF5404	FHCS M5-0.8×16	2
28	UPM6145	RETAINING RING S10	4
29	UPM4992	SPACER, 18L	2
30	UPM4991	SHAFT, dia 9.5, 181L	2
31	UPM4939	ELECTRICAL RECEPTACLE CONNECTION MALE	1
32	UPM4989	TOP COVER	1
33	UPM5137	PHOTOELECTRIC SENSOR	1
34	UF0869	SHCS M4-0.7×8	2
35	UF3749	M4 LW	2
36	UF0115	M4 FW	2
37	UF6363	M6 LW	4
38	UF1241EV	BHCS M6-1.0×20	4
39	UPM4997	BRACKET	1
40	UPM4993	SHAFT, dia 12.7, 189L	1
41	UF6375	M4-0.7-SHCS	2
42	UPM1068	COMPRESSION SPRING	2
43	UPM5084	SPRING SUPPORT	2
44	UF6376	M4 LOCK-NUT	2
45	UF0103	M6 FW	4

APPENDIX B

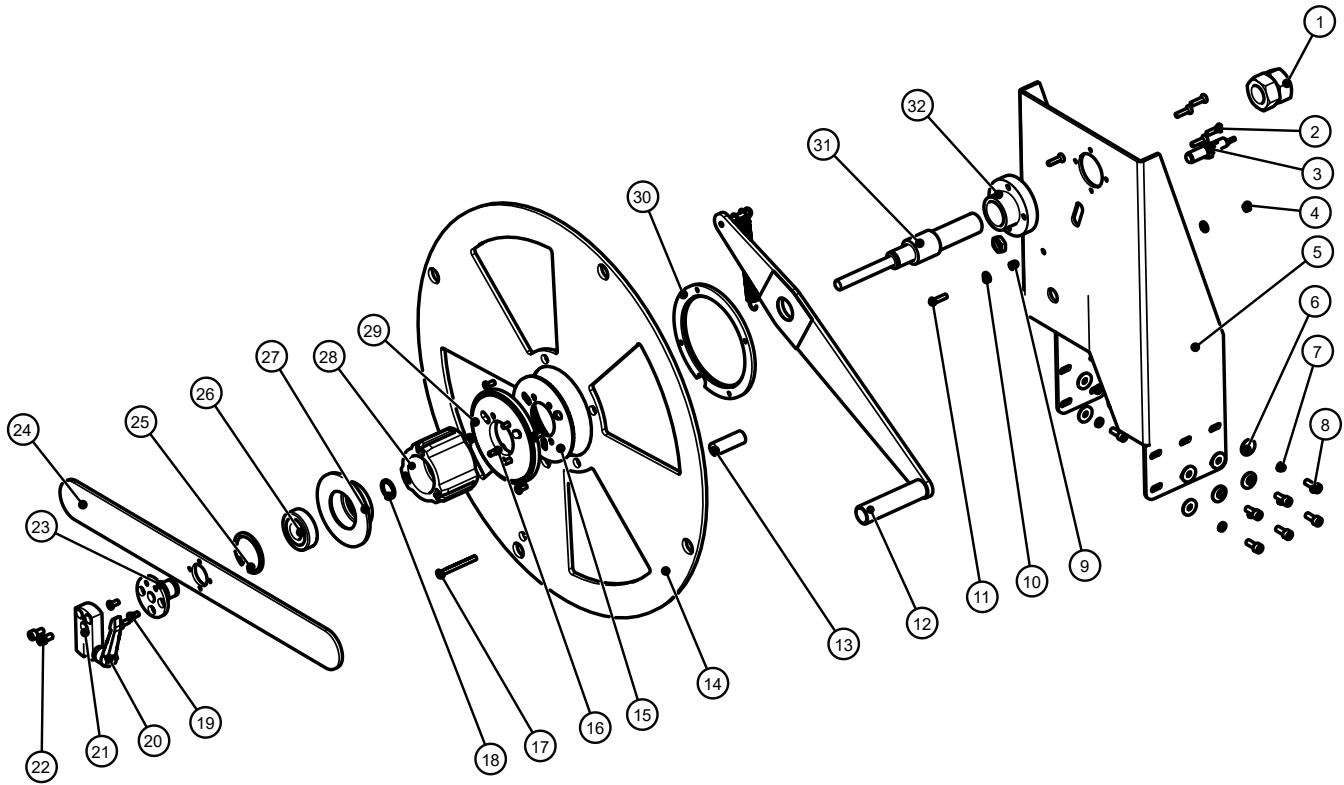
Bridge Weldment Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UPM6724	BRIDGE WELDMENT	1
2	UAM0025	CLUTCH MECHANISM RSA	1
3	UF0103	M6-19-2.0 FW	4
4	UF6363	M6 LW	4
5	UF0454	HHCS M6-1.0×16	4
6	UF0113	M8-23-2.0 FW	6
7	UF3640	M8 LW	6
8	UF1318	BHCS M8-1.25×20	6
9	UF3680	M10 FW	12
10	UF6371	M10 LW	12
11	UF4310	BHCS M10-1.5×30	12

APPENDIX B

Top Tape Mandrel Assembly

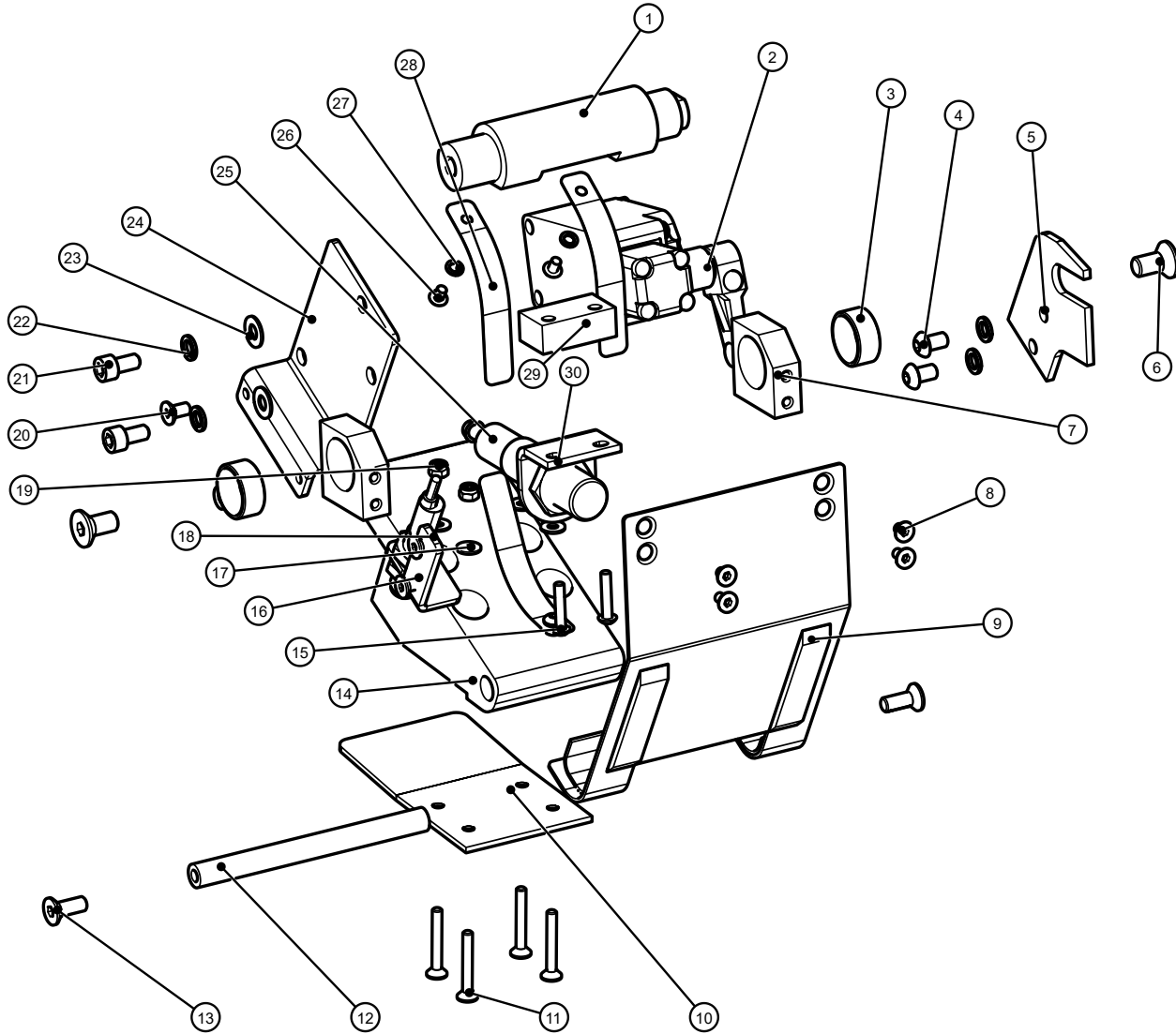


BOM ID	Part# (config)	Description (config)	Qty
1	UF3816	M24-1.5-HNR	2
2	UF3721	FHCS M5-0.8×20	8
3	UPM5969	PHOTOELECTRIC SENSOR	1
4	UF3393	M5 LOCK-NUT	1
5	UPM6725	MANDREL BRACKET	1
6	UF0103	M6-19-2.0 FW	10
7	UF6363	M6 LW	10
8	UF3187	M6-1.0-SHCS	10
9	UF6307	M5-0.8-HNR	2
10	UF0263	M5-12-1.0 FW	2
11	UF5603	BHCS M5-0.8×20	1
12	UPM5697	DANCER ARM ASSEMBLY	1
13	UPM6731	LOWER MANDREL MOUNT	1
14	UPM6728	OUTER DISC	1
15	UPM6727	MANDREL BRAKE PLATE	1
16	UPM6726	INNER DISC	1
17	UF0264	FHCS M5-0.8×55	1

BOM ID	Part# (config)	Description (config)	Qty
18	UF0265	RETAINING RING, S20	2
19	UF5400	FHCS M5-0.8×12	7
20	UPM4889	HANDLE	1
21	UPM5107	CLAMPING	1
22	UF0038	SHCS M6-1.0 X 12	2
23	UPM5106	RETAINER	1
24	UPM5108	CROSS BAR	1
25	UPM5699	R47 SNAP RING	1
26	UPM5696	BEARING 6204ZZ	1
27	UPM5104	FLANGE MANDREL	1
28	UAM0195	MANDREL HUB	1
29	UPM6732	MANDREL BEARING - KA040CP0	1
30	UPM6729	OUTER DISC BEARING RETAINER	1
31	UPM5109	STEPPED SHAFT R.H.	1
32	UPM4533	MANDREL BASE	1

APPENDIX B

Switch Plate Assembly

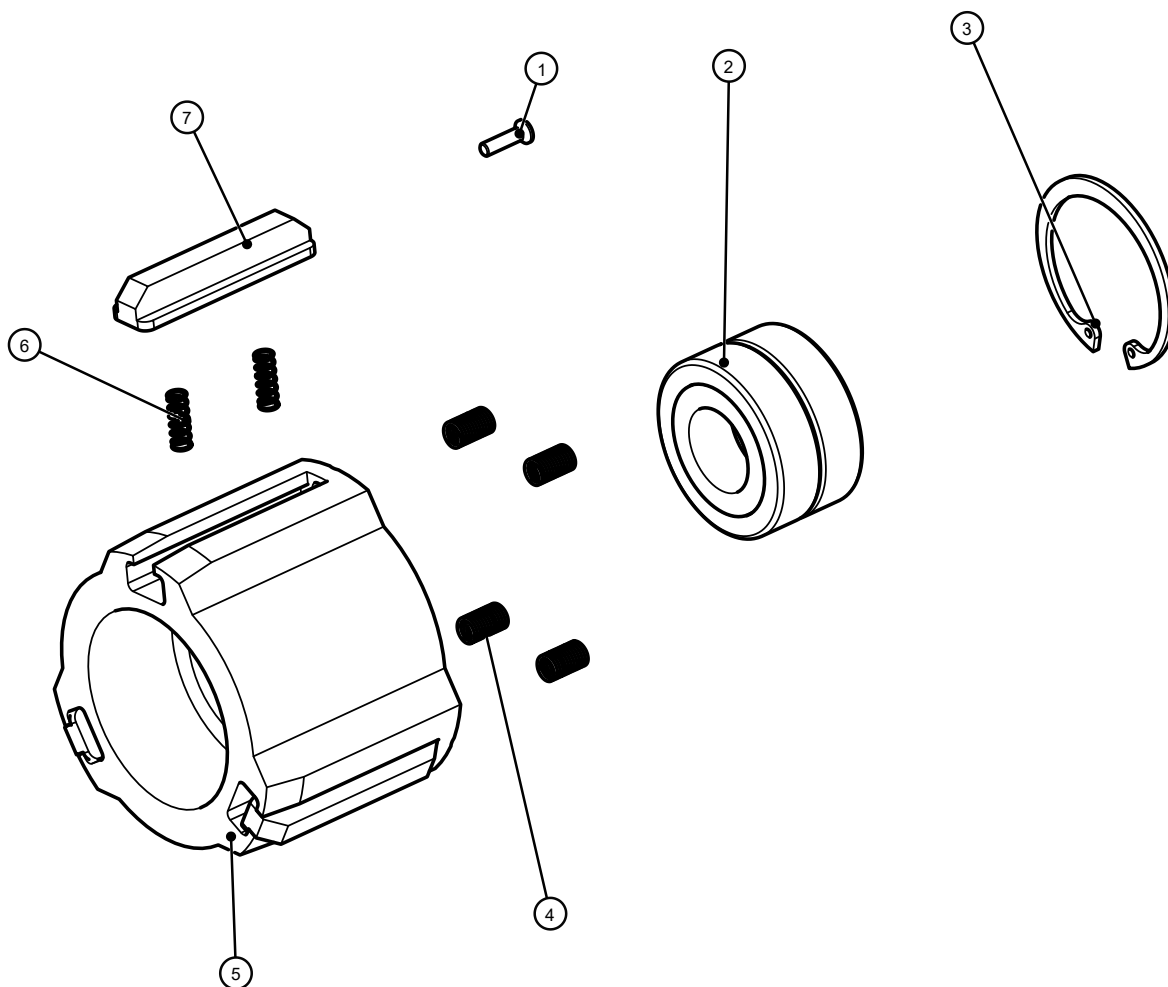


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6736	FRONT SUPPORT SHAFT	1
2	UPM4887	TWO CIRCUIT LIMIT SWITCH	1
3	UPM0335EV	TEFLON BUSHING 20IDx10L	2
4	UF1211	BHCS M6-1.0x10	2
5	UPM5100	HOLDING BRACKET	1
6	UF3684	FHCS M8-1.25x16	2
7	UPM2129	SENSOR PLT. PIVOTBLCK. TBD-2/3	2
8	UF5401	FHCS M4-0.7x8	4
9	UPM6738	SENSING PADDLE	1
10	UPM6739	COVER PLATE	1
11	UF0073	FHCS M4-0.7x30 SS	4
12	UPM6741	SHAFT, DIA 10, 109L	1
13	UF0960EV	FHCS M6-1.0x16	2
14	UPM6740	LOWER SWITCH FLAG	1
15	UF4050EV	BHCS M4-0.7x20	2
16	UPM6742	SENSOR BRACKET	1

BOM ID	Part# (config)	Description (config)	Qty
17	UF0115	FW M4-10-1.0	4
18	UPM5137	PHOTOELECTRIC SENSOR	1
19	UF6376	LOCK-NUT M4	4
20	UF6305	FHCS M5-0.8x10	4
21	UF0038	SHCS M6-1.0x12	2
22	UF6363	M6 LW	4
23	UF0127	FW M6-13-1.0	2
24	UPM6743	LIMIT SWITCH BRACKET	1
25	UPM0014	FRONT PADDLE SENSOR IG5399	1
26	UF6374	BHCS M4-0.7x6	3
27	UF3681	M4 LW	3
28	UPM0011	SPRING BLADE	3
29	UPM3238	SPACER	1
30	UPM0733	MOUNTING BRACKET FOR M18 SENSOR	1

APPENDIX B

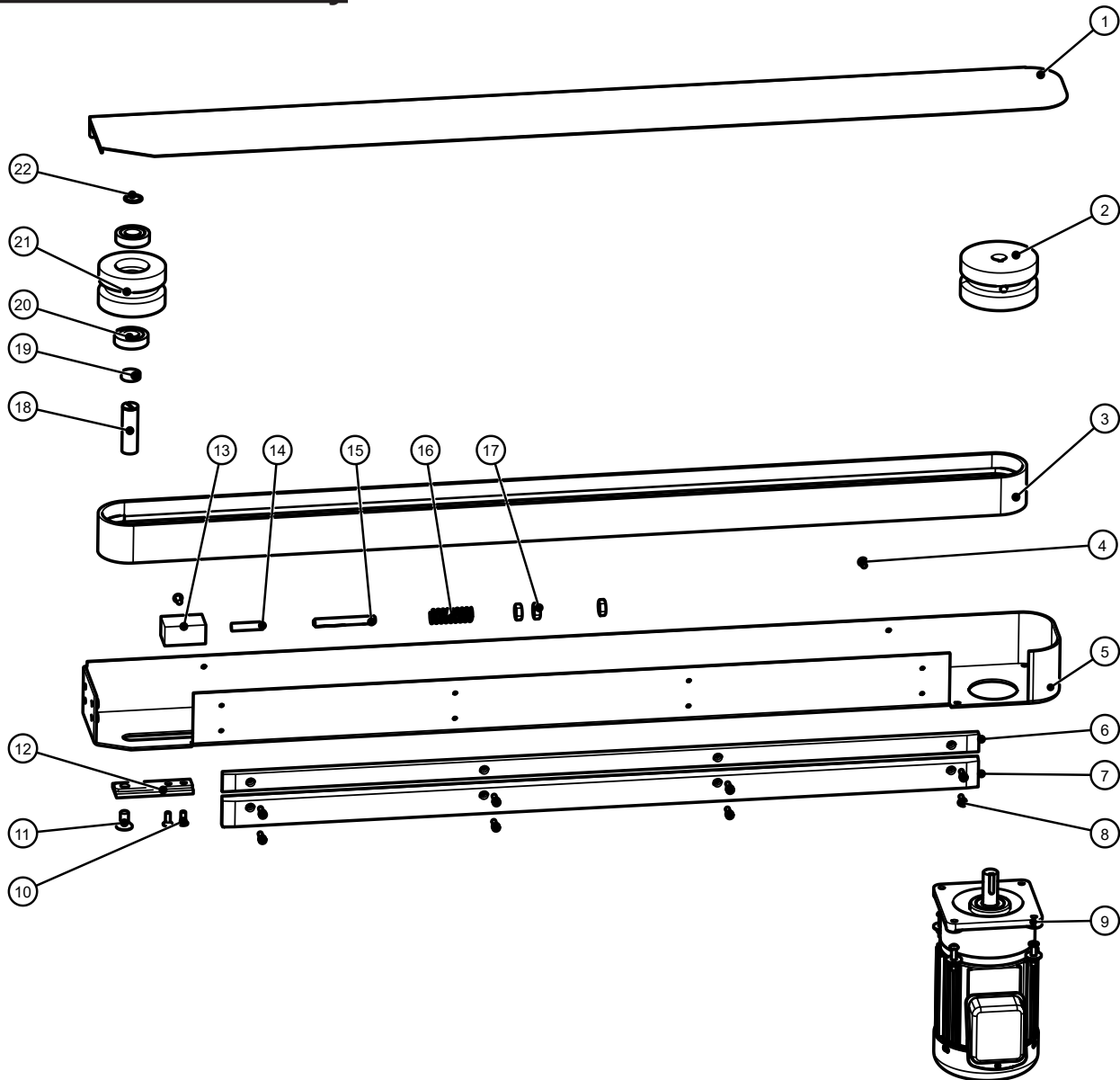
Mandrel Hub Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UF9170	SS FHCS M3-0.5 x 12	3
2	UPM7894	BALL BEARING	2
3	UF0266	45MM SNAP RING	1
4	UF4072	HELICOIL M5-0.8 INSERT	4
5	UPM5073	MANDREL HUB	1
6	UPH1468	Mandrel Sprag Spring	6
7	UPM5074	MANDREL SPRAG	3

APPENDIX B

L.H. Drive Base Assembly

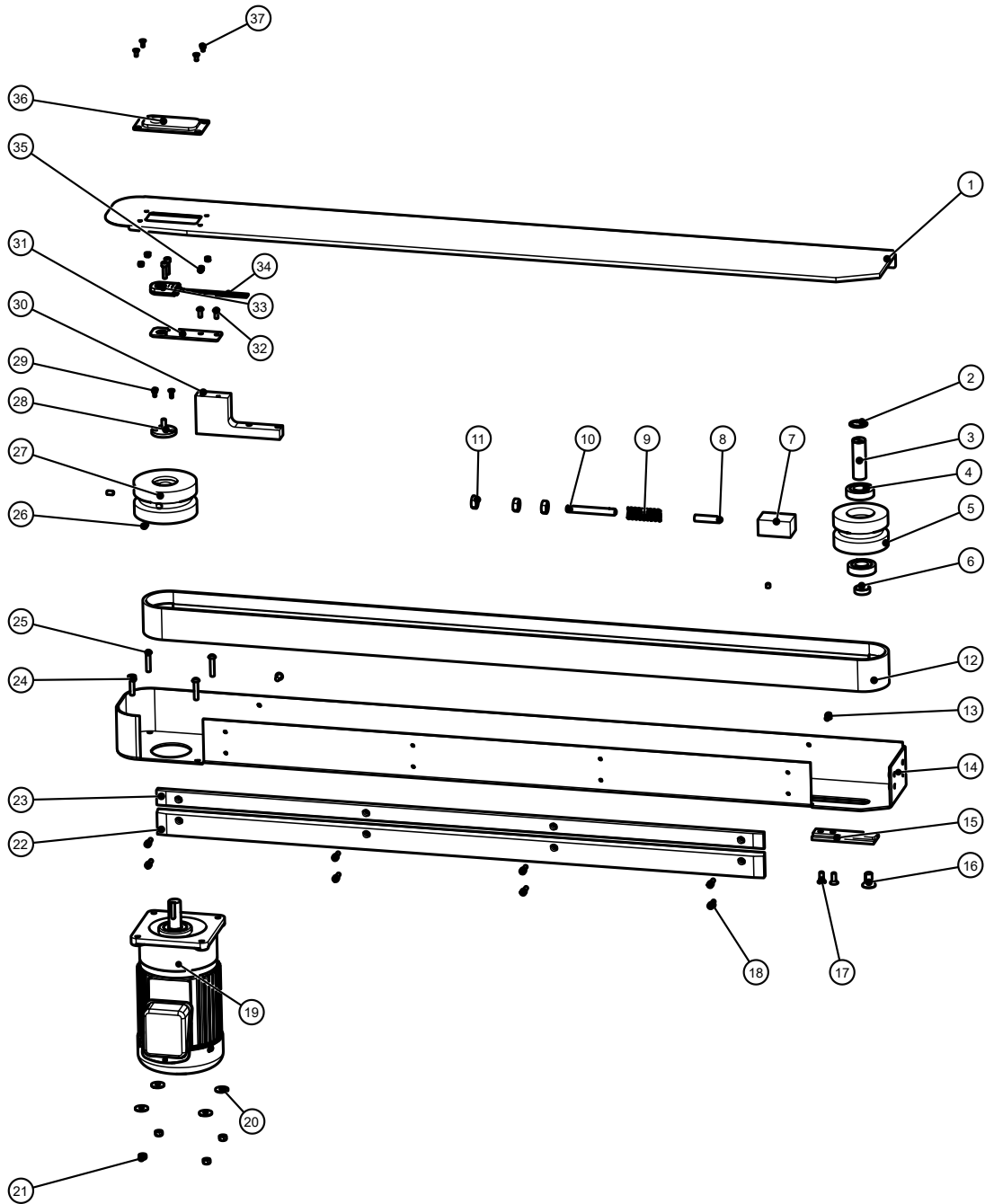


BOM ID	Part# (config)	Description (config)	Qty
1	UPM4975	COVER LEFT SIDE	1
2	UPM4883	DRIVE PULLEY	1
3	UPM4884	DRIVING BELT 50 x 2360L	1
4	UF1195	M6-1.0-BHCS	2
5	UPM6163	DRIVE WELDMENT, L.H.	1
6	UPM4974	BELT PAD	1
7	UPM6700	BELT PAD 34.25 WIDE	1
8	UF0191	M5-0.8-SHCS	8
9	UPM6789	1/3HP 1:15 MOTOR	1
10	UF0960EV	M6-1.0-FHCS	2
11	UF6397	M10-1.5-FHCS	1
12	UPM2156	TENSIONNER SLIDE	1

BOM ID	Part# (config)	Description (config)	Qty
13	UPM0101	TENSIONNER SPRING HOLDER	1
14	UPM0112	SPRING LOCATOR PIN	1
15	UF1400	SSS HK 3/8-16 X 3"	1
16	UPM0038	DIE SPRING (DRIVE BASE)	1
17	UF1610	3/8"-16-HNR	3
18	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
19	UPM4666	SPACER	1
20	UPM5772	BEARING, 3/4" ID: 1-5/8"OD	2
21	UPM4885	IDLER PULLEY	1
22	UF3814	INTERNAL RET' RING	1

APPENDIX B

R.H. Drive Base Assembly

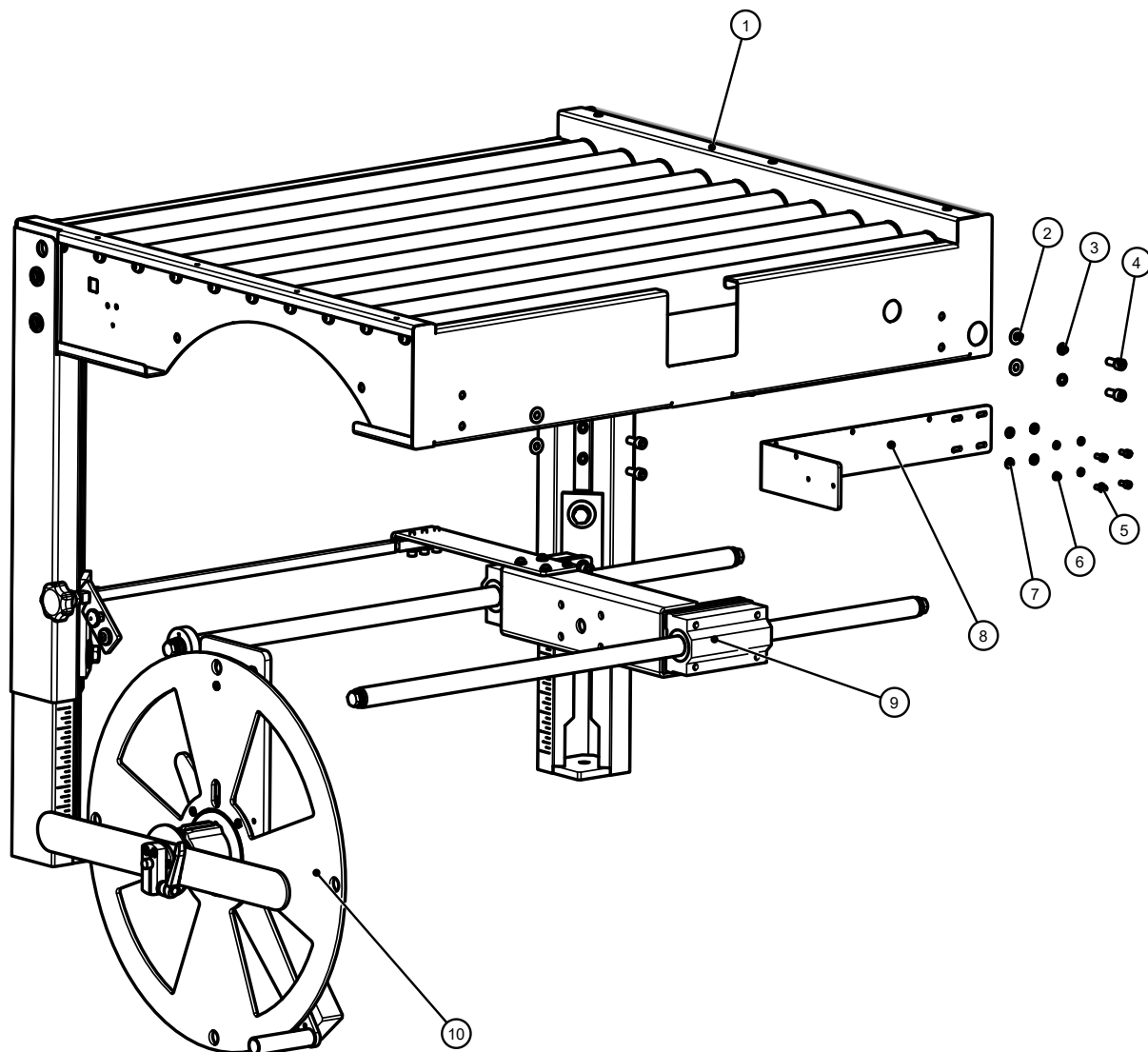


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6709	COVER RIGHT SIDE W/ ENCODER	1
2	UF3814	INTERNAL RET' RING	1
3	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
4	UPM5772	BEARING, 3/4" ID: 1-5/8"OD	2
5	UPM4885	IDLER PULLEY	1
6	UPM4666	SPACER	1
7	UPM0101EV	TENSIONNER SPRING HOLDER	1
8	UPM0112	SPRING LOCATOR PIN	1
9	UPM0038	DIE SPRING (DRIVE BASE)	1
10	UF1400	SSS HK 3/8-16 X 3"	1
11	UF1610	3/8"-16-HNR	3
12	UPM4884	DRIVING BELT 50 x 2360L	1
13	UF1216	M6-1.0-BHCS	2
14	UPM6701	DRIVE WELDMENT R.H.	1
15	UPM2156	TENSIONER ALIGNMENT PLATE	1
16	UF6397	M10-1.5-FHCS	1
17	UF0960EV	M6-1.0-FHCS	2
18	UF0191	M5-0.8-SHCS	8
19	UPM6789	1/3HP 1:15 MOTOR	1

BOM ID	Part# (config)	Description (config)	Qty
20	UF0103	M6 FW	4
21	UF5900	LOCK-NUT	4
22	UPM6700	BELT PAD 34.25 WIDE	1
23	UPM4974	BELT PAD	1
24	UF3712	M6-1.0-FHCS	1
25	UF3711	M6-1.0-BHCS	3
26	UF3683	M6-1.0-SSS	2
27	UPM6702	ENCODER DRIVE PULLEY	1
28	UPM6703	ENCODER PULLEY EXTENTION	1
29	UF0902EV	M4-0.7-FHCS	2
30	UPM6705	ENCODER MOUNT RISER	1
31	UPM6706	ENCODER MOUNT	1
32	UF3687	M5-0.8-BHCS	2
33	UPM6707	ENCODER	1
34	UPM6708	ENCODER WIRE HARNESS	2
35	UF6376	LOCK-NUT M4-0.7	4
36	UPM6710	ENCODER COVER	1
37	UF4514	M4-0.7-SS FHCS	4

APPENDIX B

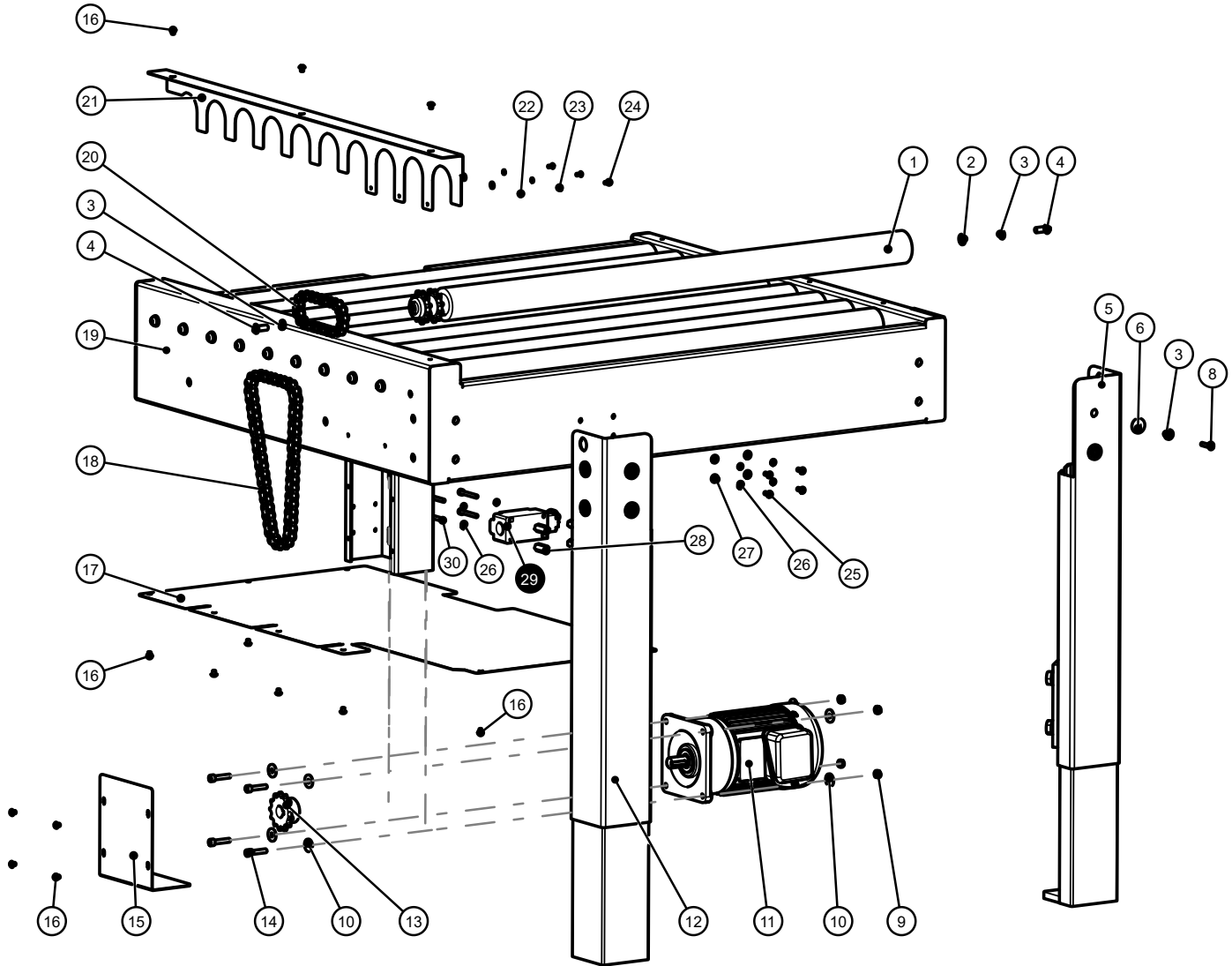
Outfeed Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UAM0613	OUTFEED FRAME ASS'Y	1
2	UF0105	FW M8-19-1.0	4
3	UF0867	M8 LW	4
4	UF0864	SHCS M8-1.25×20	4
5	UF9154	SHCS M5-0.8×12	4
6	UF7023	M5 LW	4
7	UF0263	FW M5-12-1.0	4
8	UPM6755	BRACKET	1
9	USM0925	BOTTOM TAPE CARRIAGE ASS'Y	1
10	UAM0615	BOTTOM MANDREL ASSEMBLY	1

APPENDIX B

Outfeed Frame Assembly

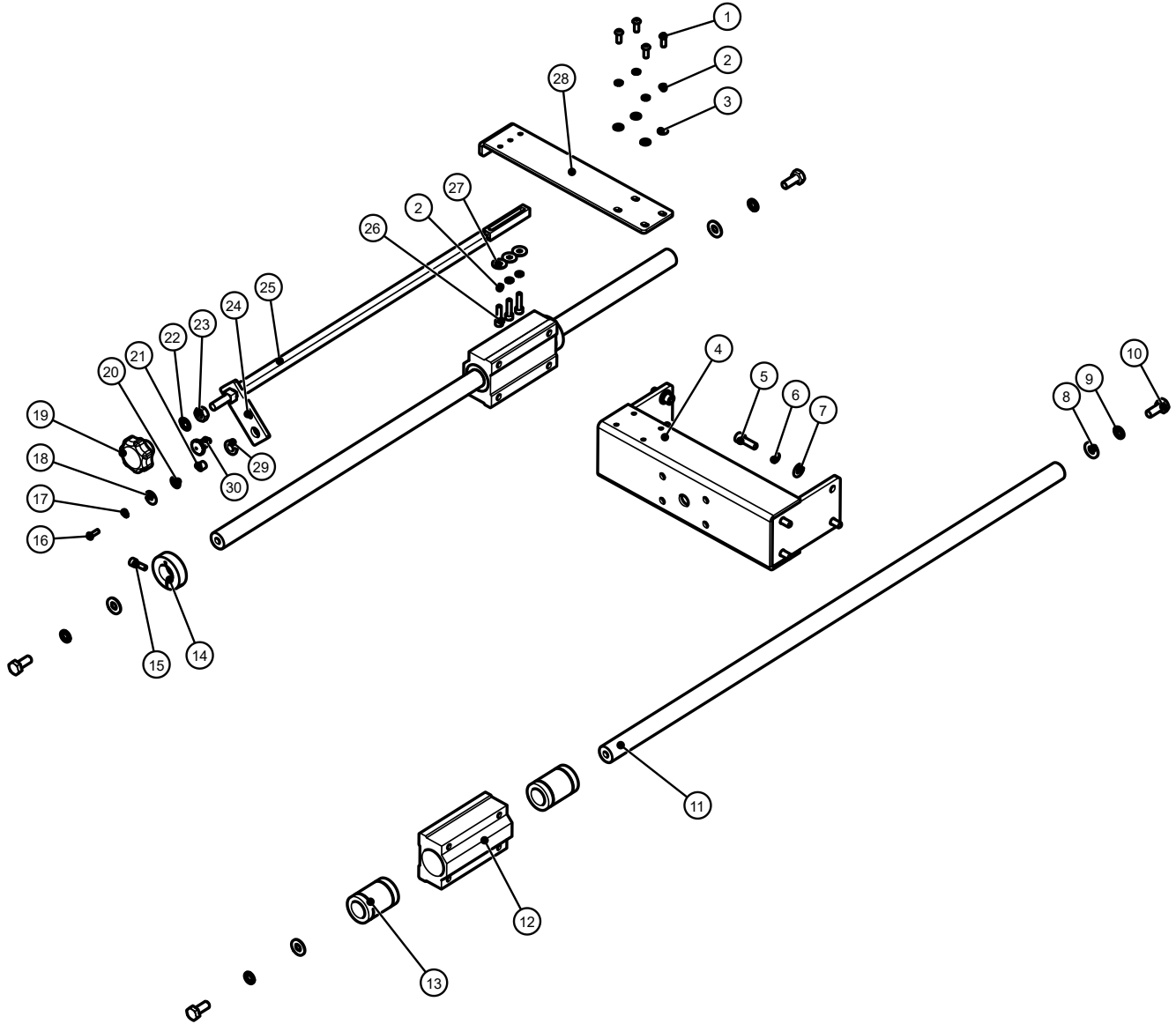


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6748	ROLLER	10
2	UF3643	M8 FW	20
3	UF0867		28
4	UF1318	BHCS M8-1.25×20	20
5	USM0910	LEG ASS'Y	1
6	UF1821	FW M8	8
8	UF3279	BHCS M5 - 0.8 X 25 SS	8
9	UF3391	LOCK-NUT	4
10	UF0103	M6-19-2.0 FW	8
11	UPM7874	MOTOR, 1/3 HP 15:1 GEAR RATIO	1
12	USM0909	LEG ASS'Y	1
13	UPM5126	SPROCKET	1
14	UF4236	SHCS M6-1.0×30	4
15	UPM6807	MOTOR CHAIN COVER	1
16	UF5601	BHCS M5-0.8×6	15

BOM ID	Part# (config)	Description (config)	Qty
17	UPM6747	BOTTOM COVER	1
18	UPM4890	CHAIN #40, 25 PITCH	1
19	UPM6746	OUTFEED TABLE WELDMENT	1
20	UPM4891	CHAIN #40, 12 PITCH	8
21	UPM4969	CHAIN COVER	1
22	UF0115	M4-10-1.0 FW	3
23	UF3681	M4 LW	3
24	UF3685	BHCS M4-0.7×8	3
25	UF3687	BHCS M5-0.8×12	4
26	UF7023	M5 LW	8
27	UF0263	M5-12-1.0 FW	4
28	UPM6037	POST	4
29	UPM6717	LIMIT SWITCH	1
30	UF4304	SHCS M5-0.8×40	4

APPENDIX B

Bottom Tape Carriage Assembly

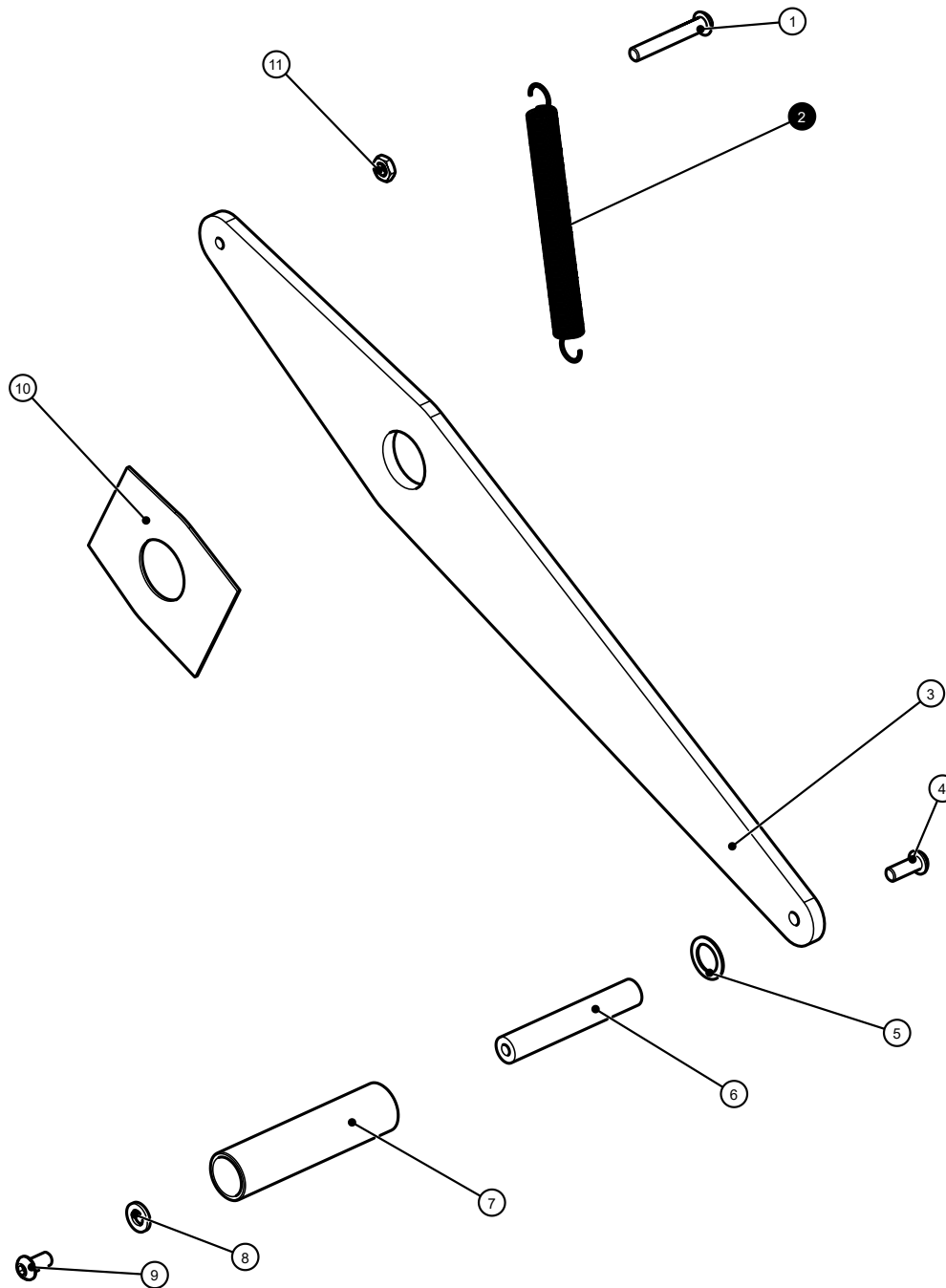


BOM ID	Part# (config)	Description (config)	Qty
1	UF1250EV	BHCS M6-1.0×16	4
2	UF6363	M6 LW	7
3	UF0127	M6-13-1.0 FW	4
4	UPM6749	CONNECTOR BRACKET	1
5	UF0098	SHCS M8-1.25×25	8
6	UF0867	M8 LW	8
7	UF0105	M8-19-1.0 FW	8
8	UF0267	M10 FW	4
9	UF6371	M10 LW	4
10	UF3647	HHCS M10-1.5×25	4
11	UPM6751	SHAFT, 901L	2
12	UPM5140	SHUTTLE BLOCK	2
13	UPM4986	LINEAR BEARING 25 mm	4
14	UPM5713	SHAFT COLLAR	2
15	UF0835	SHCS M6-1.0×20	2
16	UF5602	BHCS M5-0.8×16	1

BOM ID	Part# (config)	Description (config)	Qty
17	UF7023	M5 LW	1
18	UF0106	M5-19-1.0 FW	1
19	UPM2784	Handle	1
20	UF0108	FW, 16 OD, 10.5 ID, 0.5 THK	1
21	UPM2803	Rotary Sleeve	1
22	UF0057	Internal Tooth LW M10	1
23	UF1540EV	HED NUT M10	1
24	UPM2471	Drag Link	1
25	UPM6750	TAPE CARRIAGE PULL ROD	1
26	UF0630EV	SHCS M6-1.0×25	3
27	UF0103	M6-19-2.0 FW	3
28	UPM6042	BRACKET	1
29	UPM7909	BUSHING	1
30	UPM2792	Divide Positioner	1

APPENDIX B

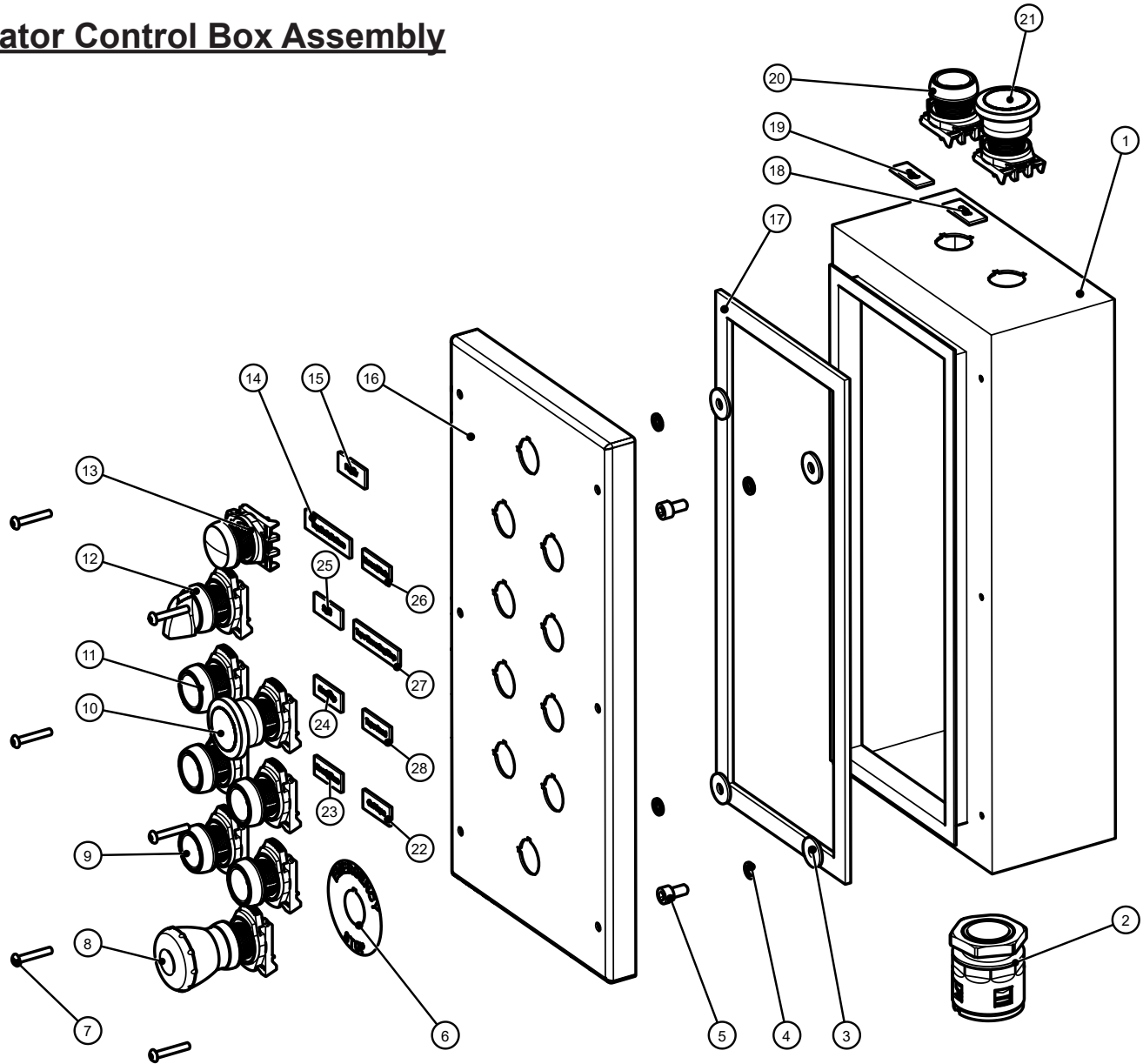
Dancer Arm Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UF4503	SS BHCS M6-1 x 40mm	1
2	UPM4498	EXTENSION SPRING	1
3	UPM6238	PIVOT ARM R.H.	1
4	UF6414	SS BHCS M6-1 x 16mm	1
5	UF6336	F.W. PTFE, 13 x 19 x 1 mm	1
6	UPH0949	GUIDE ROLLER SHAFT	1
7	UPH9059	PEEL OFF ROLLER ET 72	1
8	UF6341	SS FW M6	1
9	UF3278	SS BHCS M6-1 x 12 mm	1
10	UPM9802	BREAK PAD	1
11	UF3361	SS JAM NUT M6	1

APPENDIX B

Operator Control Box Assembly

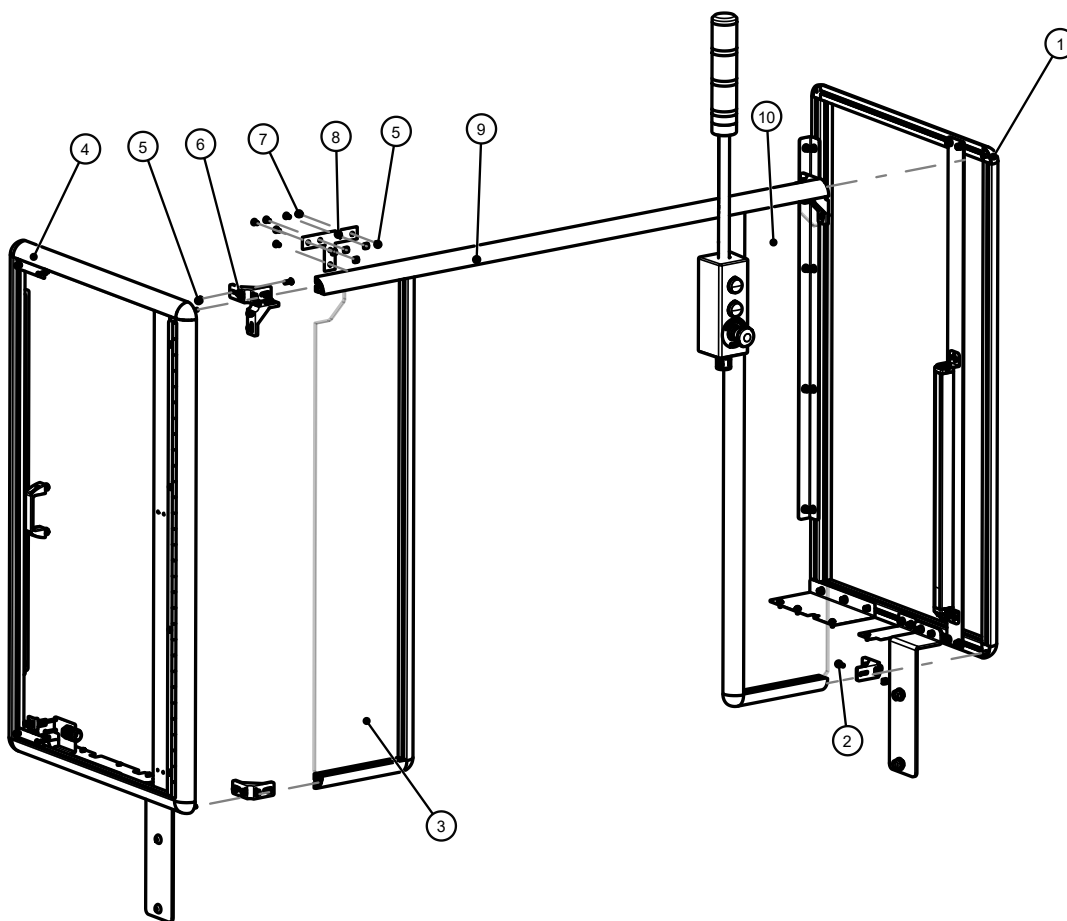


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6757	CONTROL BOX FRAME	1
2	UPM4905	CORD GRIP	1
3	UF0103	M6-19-2.0 FW	4
4	UF6363	M6 LW	4
5	UF0038	SHCS M6-1.0x12	4
6	UPM6045	E-STOP LABEL	1
7	UF0069	BHCS M4-0.7x25	6
8	UPM5733	E-STOP	1
9	UPM5709	PUSH BUTTON (BLACK)	4
10	UPM6051	RED PUSH BUTTON	1
11	UPM5734	START SWITCH	1
12	UPM6050	3 POS SELECTOR SWITCH	1
13	UPM6048	ILLUMINATED PILOT LIGHT	1
14	UPM4898	LEGEND PLATE "TOP/BOTH/BOTTOM"	1
15	UPM4894	LEGEND PLATE "POWER LAMP"	1

BOM ID	Part# (config)	Description (config)	Qty
16	UPM6757	CONTROL BOX FACE PLATE	1
17	UPM6758	CONTROL BOX SEAL	1
18	UPM4903	LEGEND PLATE "CLEAR"	1
19	UPM6141	LEGEND PLATE "CLEAR"	1
20	UPM6047	PUSH BUTTON BLUE	1
21	UPM4926	ILLUMINATED Pushbutton, Blue	1
22	UPM4900	LEGENDE PLATE "CUT TAPE"	1
23	UPM4897	LEGEND PLATE "BELT DRIVE"	1
24	UPM4897	LEGEND PLATE "BELT DRIVE"	1
25	UPM4895	LEGEND PLATE "START"	1
26	UPM4893	LEGEND PLATE "MANUAL/AUTO"	1
27	UPM4896	LEGEND PLATE "TAPE THREADING/STOP"	1
28	UPM4899	LEGEND PLATE "TAPE FEED"	1

APPENDIX B

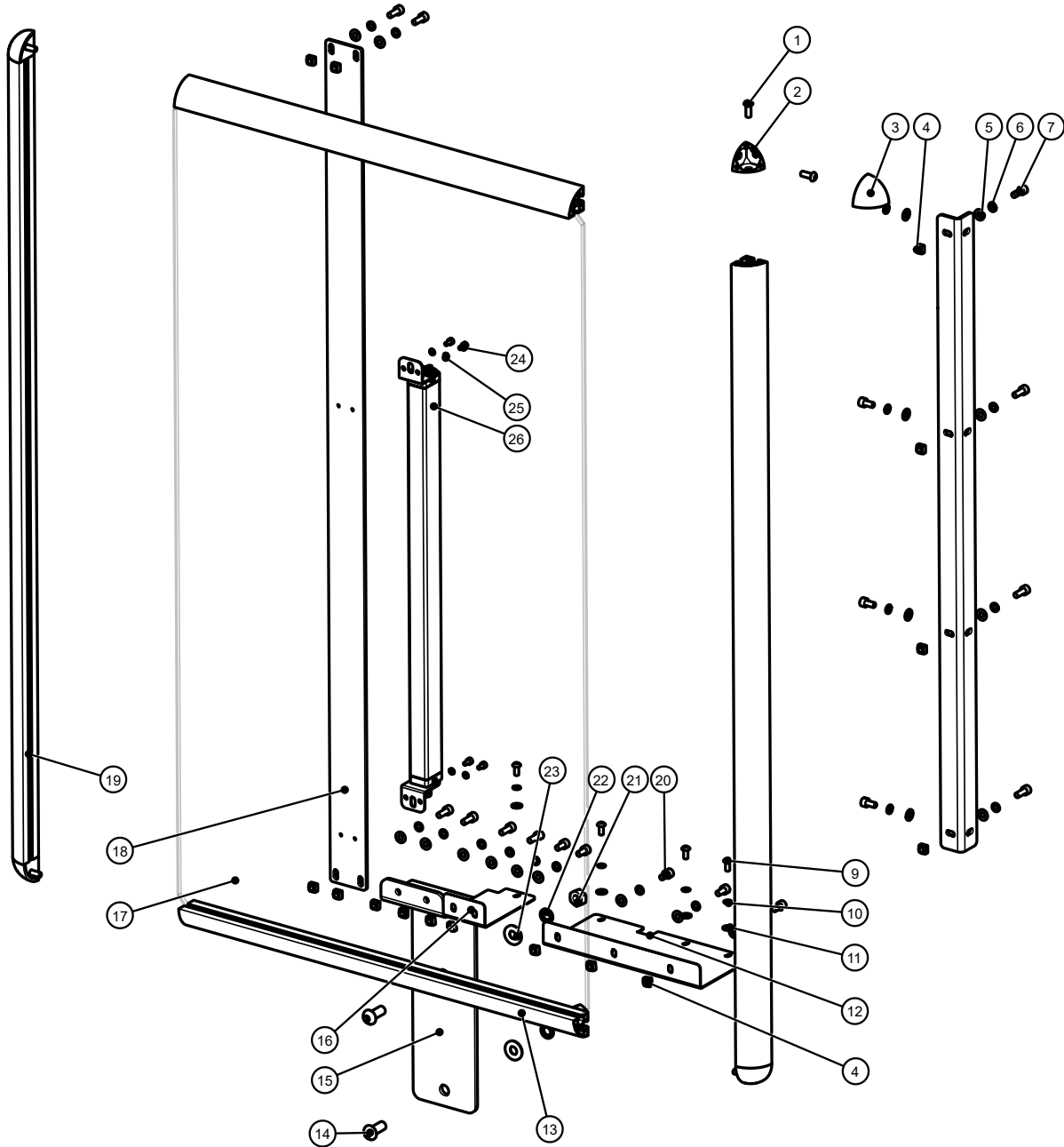
Infeed Guarding Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UAM0618	WATHS FRONT FIXED GUARDING	1
2	M6-1.0×16L	M6-1.0-BHCS	24
3	UAM0619	INFEED LEFT GUARDING	1
4	UAM0620	WATHS SINGLE DOOR GUARDING	1
5	UF3399	M6 INSERT NUT	30
6	UPM6277	DOOR GUARDING CORNER BRACKET	6
7	UF1042	FHCS M6-1.0×12	6
8	UPM6809	GUARDING T BRACKET	2
9	UPM6810	ROUND 3030 EXTRUSION 1261MM	1
10	UAM0621	INFEED RIGHT GUARDING	1

APPENDIX B

Infeed Fixed Guarding Assembly

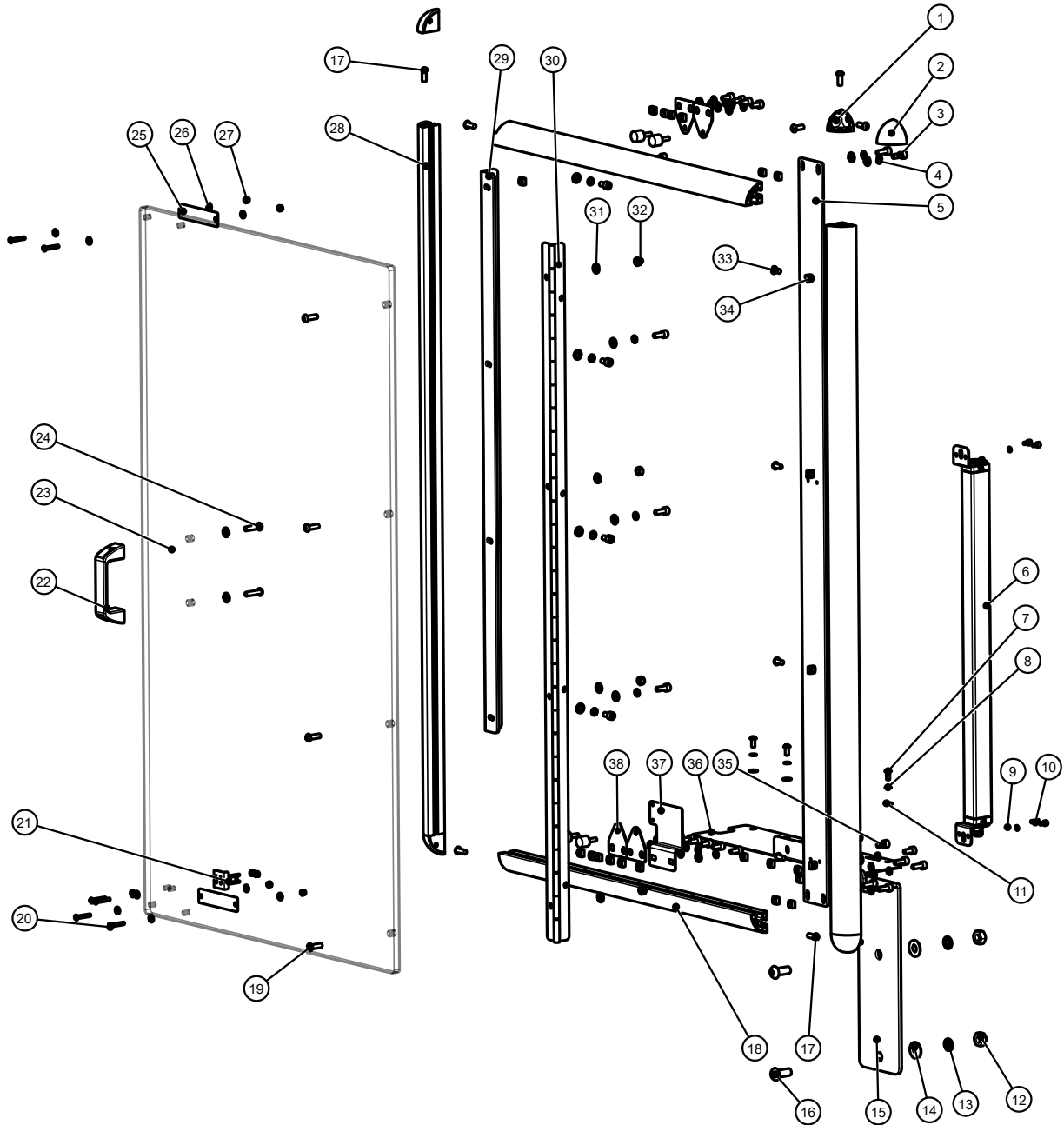


BOM ID	Part# (config)	Description (config)	Qty
1	UF1250EV	BHCS M6-1.0×16	10
2	UPM6284	DOOR GUARDING CORNER	4
3	UPM6282	DOOR GUARDING CORNER CAP	4
4	UF3399	M6 INSERT NUT	15
5	UF0127	M6-13-1.0 FW	19
6	UF6363	M6 LW	19
7	UF3187	SHCS M6-1.0×16	9
9	UF3687	BHCS M5-0.8×12	4
10	UF7023	M5 LW	4
11	UF0263	M5-12-1.0 FW	4
12	UPM6295	DOOR GUARDING LOWER BRACKET LG	1
13	UPM6813	ROUND 3030 EXTRUSION 560MM	2
14	UF6404	BHCS M10-1.5×25	2

BOM ID	Part# (config)	Description (config)	Qty
15	UPM6289	DOOR GUARDING LOWER MOUNT LG	1
16	UPM6294	DOOR GUARDING LOWER BRACKET SM	1
17	UPM6292	DOOR GUARDING FIXED PANEL	1
18	UPM6811	LIGHT CURTAIN MOUNTING BAR	1
19	UPM6815	ROUND 3030 EXTRUSION 1014MM	2
20	UF0038	SHCS M6-1.0×12	9
21	UF1540EV	M10-1.5-HNR	2
22	UF6371	M10 LW	2
23	UF0267	M10-23-2.0 FW	2
24	UF0869	SHCS M4-0.7×8	4
25	UF3681	M4 LW	4
26	UPM6812	LIGHT CURTAIN	1

APPENDIX B

Infeed Door Guarding Assembly

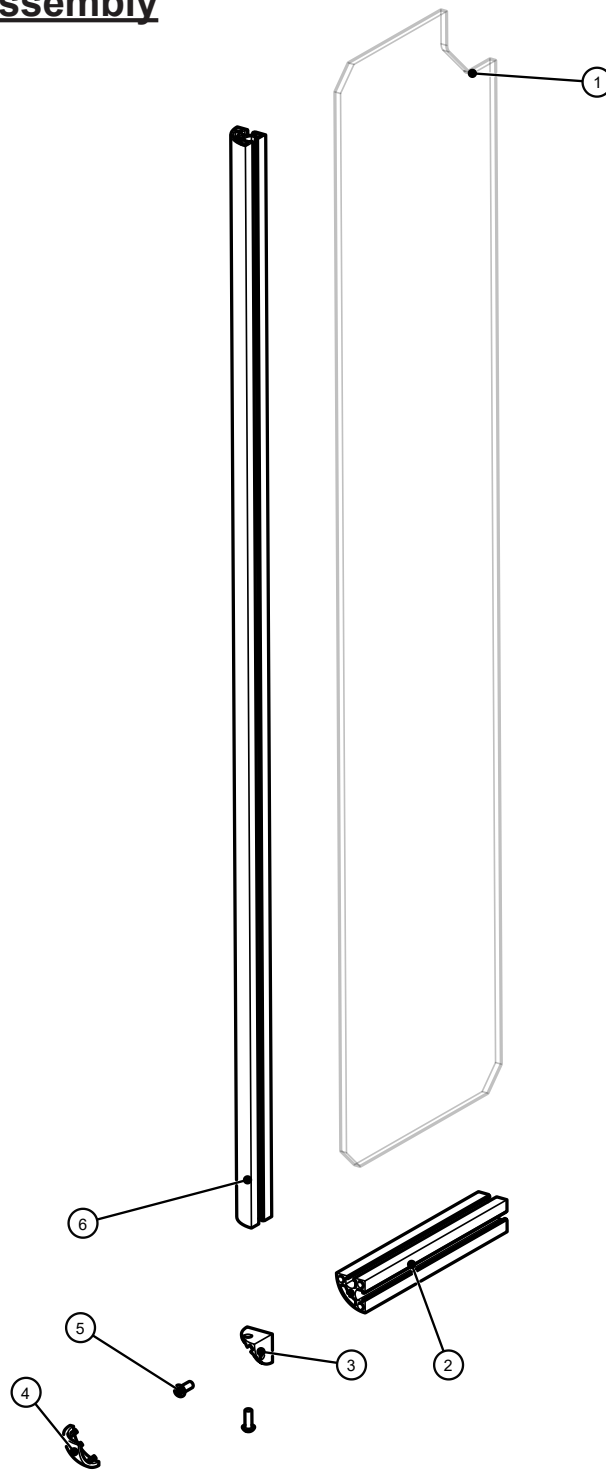


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6284	DOOR GUARDING CORNER	4
2	UPM6282	DOOR GUARDING CORNER CAP	4
3	UF3187	SHCS M6-1.0×16	10
4	UF6363	M6 LW	27
5	UPM6811	LIGHT CURTAIN MOUNTING BAR	1
6	UPM6812	LIGHT CURTAIN	1
7	UF3687	BHCS M5-0.8×12	3
8	UF7023	M5 LW	3
9	UF3681	M4 LW	4
10	UF0869	SHCS M4-0.7×8	4
11	UF0263	M5-12-1.0 FW	3
12	UF1540EV	M10-1.5-HNR	2
13	UF6371	M10 LW	2
14	UF0267	M10-23-2.0 FW	2
15	UPM6289	DOOR GUARDING LOWER MOUNT LG	1
16	UF6404	BHCS M10-1.5×25	2
17	UF1250EV	BHCS M6-1.0×16	10
18	UPM6813	ROUND 3030 EXTRUSION 560MM	2
19	UF1241EV	BHCS M6-1.0×20	4
20	UF0069	BHCS M4-0.7×25	6

BOM ID	Part# (config)	Description (config)	Qty
21	UPM6283	DOOR GUARDING LATCH	1
22	UPM6281	DOOR GUARDING HANDLE	1
23	UPM6814	DOOR GUARDING PANEL	1
24	UF0076	BHCS M6-1.0×25	2
25	UPM6280	DOOR PANEL STOPPER PANEL	2
26	UF0115	M4-10-1.0 FW	10
27	UF6376	NYLON LOCK-NUT M4-0.7	6
28	UPM6815	ROUND 3030 EXTRUSION 1014MM	2
29	UPM6277	DOOR GUARDING CORNER BRACKET	1
30	UPM6279	DOOR GUARDING HINGE	1
31	UF0127	M6-13-1.0 FW	33
32	UF5900	NYLON LOCK-NUT M6-1.0	6
33	UF1195	BHCS M6-1.0×12	4
34	UF3399	M6 INSERT NUT	24
35	UF0038	SHCS M6-1.0×12	17
36	UPM6287	DOOR GUARDING LOWER BRACKET	1
37	UPM6287	DOOR GUARDING LOWER BRACKET	1
38	UPM6290	DOOR GUARDING STOPPER BRACKET	4

APPENDIX B

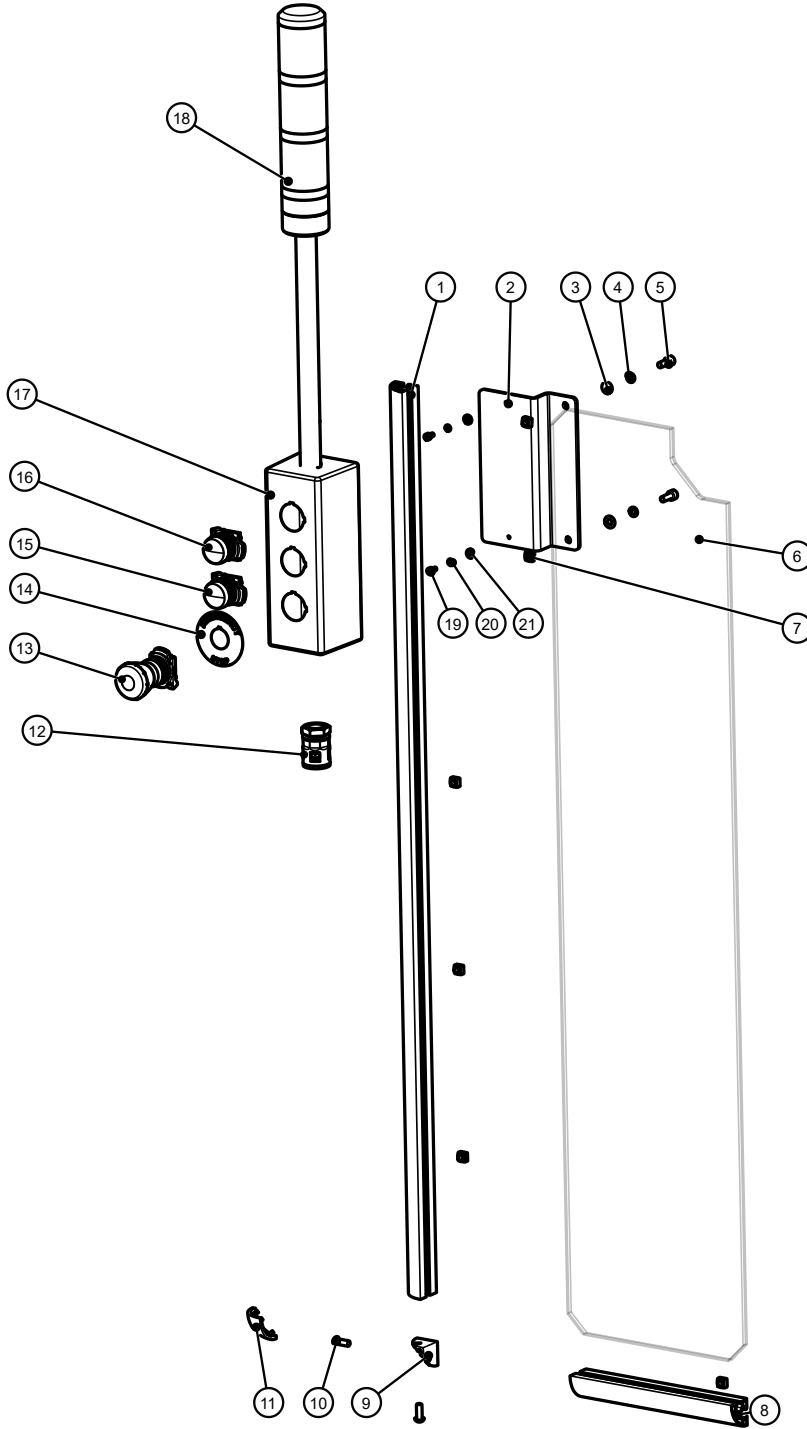
Infeed Left Guarding Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UPM6816	INFEED GUARDING PANEL LH	1
2	UPM6817	ROUND 3030 EXTRUSION 210MM	1
3	UPM6284	DOOR GUARDING CORNER	1
4	UPM6282	DOOR GUARDING CORNER CAP	1
5	UF3187	BHCS M6-1.0×16	2
6	UPM6815	ROUND 3030 EXTRUSION 1014MM	1

APPENDIX B

Infeed Right Guarding Assembly

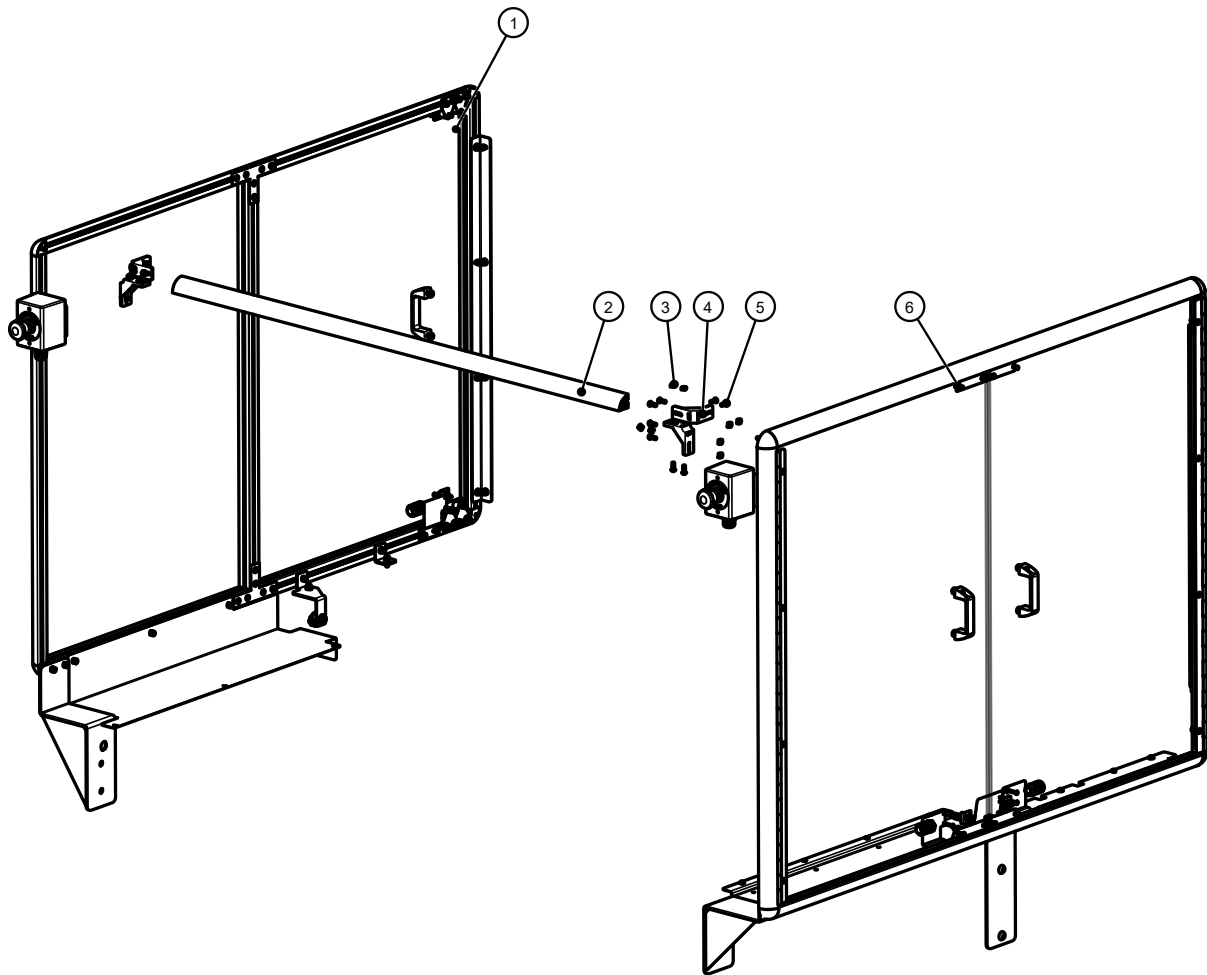


BOM ID	Part# (config)	Description (config)	Qty
1	UPM6814	ROUND3030 EXTRUSION 1014MM	1
2	UPM6818	CONTROL BOX BRACKET	1
3	UF0127	M6-13-1.0 FW	2
4	UF6363	M6 LW	2
5	UF3187	SHCS M6-1.0x16	2
6	UPM6819	INFEEED GUARDING PANEL RH	1
7	UF3399	M6 INSERT NUT	6
8	UF6817	ROUND 3030 EXTRUSION 210MM	1
9	UPM6284	DOOR GUARDING CORNER	1
10	UF1250EV	BHCS M6-1.0x16	2
11	UPM6282	DOOR GUARDING CORNER CAP	1

BOM ID	Part# (config)	Description (config)	Qty
12	UPM6681	CORD GRIP 22MM	1
13	UPM5733	E-STOP	1
14	UPM6045	Legend Plate	1
15	UPM6820	INDICATOR LIGHT YELLOW	1
16	UPM6821	INDICATOR LIGHT RED	1
17	UPM6480	CONTROL BOX HOUSING	1
18	UPM5573	STATUS BAR	1
19	UF0869	SHCS M4-0.7x8	2
20	UF3681	M4 LW	2
21	UF0115	M4-10-1.0 FW	2

APPENDIX B

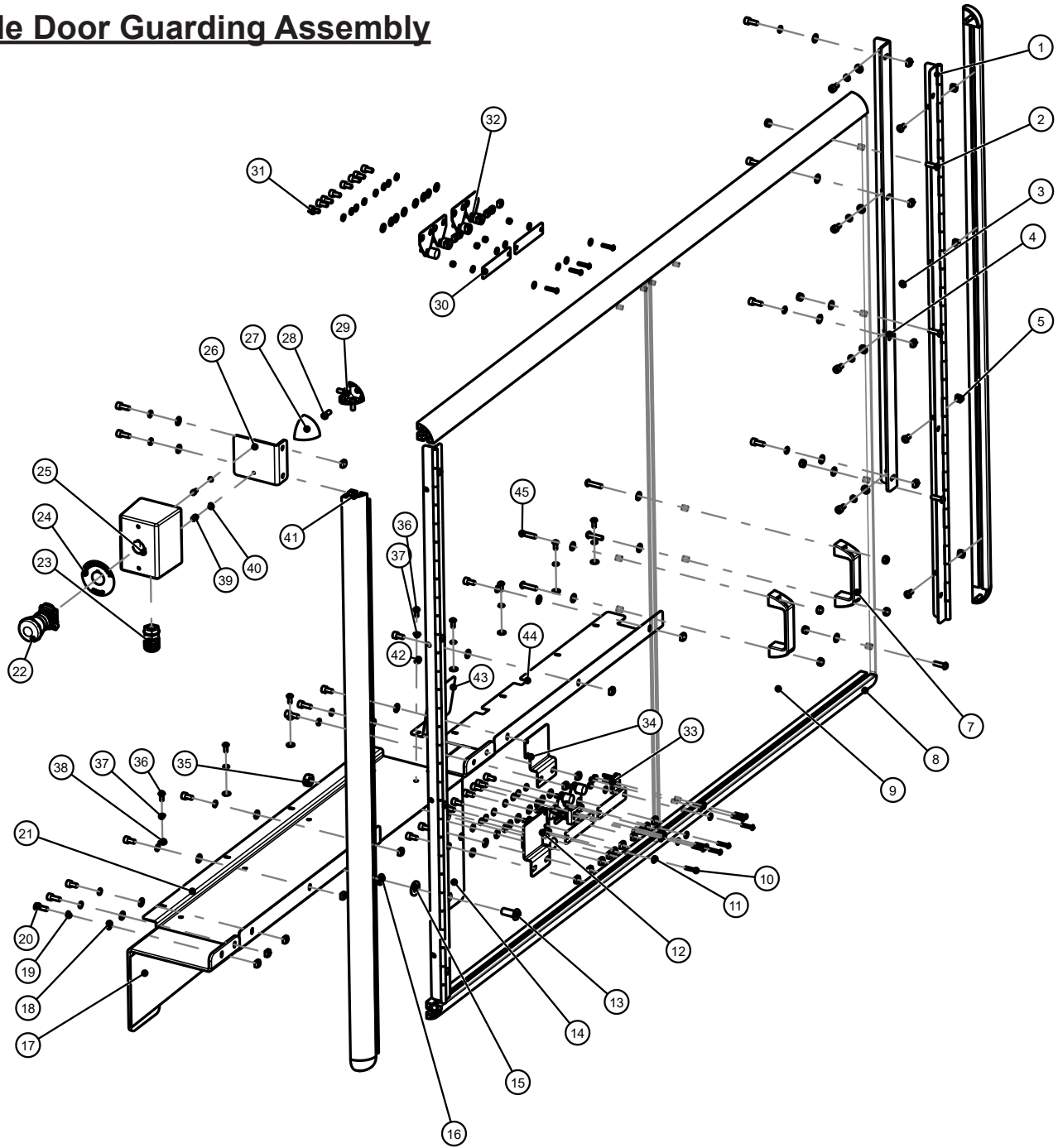
Outfeed Guarding Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UAM0623	WATHS HALF DOOR GUARDING	1
2	UPM6825	ROUND 3030 EXTRUSION 1236MM	1
3	UF3399	M6 INSERT NUT	16
4	UPM6277	DOOR GUARDING CORNER BRACKET	4
5	M6-1.0×16L	M6-1.0-BHCS	16
6	UAM0622	WATHS DOUBLE DOOR GUARDING	1

APPENDIX B

Double Door Guarding Assembly



BOM ID	Part# (config)	Description (config)	Qty
1	UPM6279	DOOR HINGE	2
2	UF1241EV	BHCS M6-1.0x20	8
3	UF1195	BHCS M6-1.0x12	8
4	UPM6285	DOOR GUARDING VERTICAL MOUNT	1
5	UF3399	M6 INSERT NUT	45
7	UPM6281	DOOR GUARDING HANDLE	2
8	UPM6826	ROUND 3030 EXTRUSION 1356MM	2
9	UPM6827	DOUBLE DOOR GUARDING PANEL	2
10	UF4050EV	M4-0.7-BHCS	12
11	UF0115	M4-10-1.0 FW	22
12	UPM6828	DOOR GUARDING LOWER MOUNT SM-R	1
13	UF6404	BHCS M10-1.5x25	2
14	UPM6289	DOOR GUARDING LOWER MOUNT LG	1
15	UF0267	M10-23-2.0 FW	2
16	UF6371	M10 LW	2
17	UPM6287	DOOR GUARDING LOWER BRACKET	1
18	UF0127	M6-13-1.0 FW	50
19	UF6363	M6 LW	38
20	UF3187	SHCS M6-1.0x16	10
21	UPM6289	DOOR GUARDING LOWER MOUNT LG	1
22	UPM5733	E-STOP	1
23	UPM6681	CORD GRIP 22MM	1
24	UPM6045	E-STOP LABEL	1

BOM ID	Part# (config)	Description (config)	Qty
25	UPM5710	CONTROL STATION BOX	1
26	UPM6293	GUARDING E-STOP MOUNTING BRACKET	1
27	UPM6282	DOOR GUARDING CAP	4
28	M6-1.0x16L	M6-1.0-BHCS	9
29	UPM6284	DOOR GUARDING CORNER	4
30	UPM6814	DOOR PANEL STOPPER PANEL	4
31	UF0038	SHCS M6-1.0x12	28
32	UPM6290	DOOR GUARDING STOPPER BRACKET	8
33	UPM6283	DOOR GUARDING LATCH	2
34	UPM6288	DOOR GUARDING LOWER MOUNT SM-L	1
35	UF1540EV	M10-1.5-HNR	2
36	UF3687	BHCS M5-0.8x12	10
37	UF7023	M5 LW	10
38	M5-12-1.0	M5 FW	8
39	M4-0.7x8L	M4-0.7-SHCS	2
40	UF3681	M4 LW	2
41	UPM6815	ROUND 3030 EXTRUSION 1014MM	2
42	M5-0.8	M5-0.8-HNR	2
43	UPM6829	EXIT PHOTOEYE BACKDROP	1
44	UPM6830	DOOR GUARDING LOWER MOUNT	1
45	M6-1.0x25L	M6-1.0-BHCS	4

