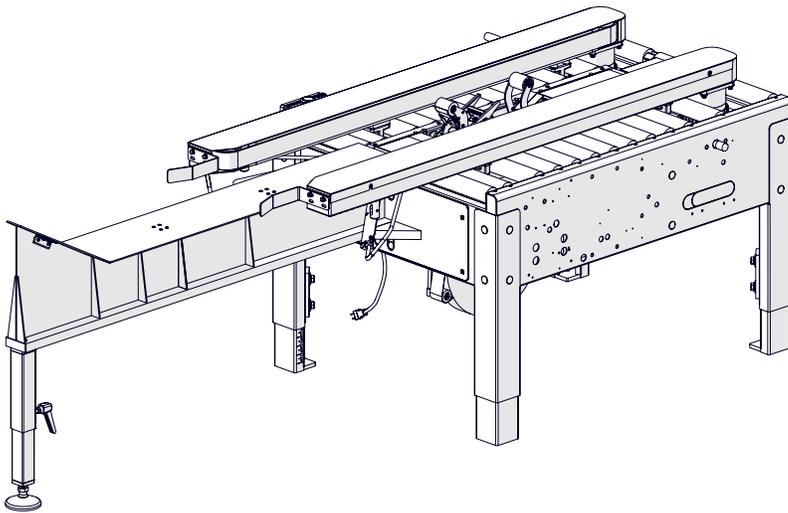




USER MANUAL

USA 20-BFF



For Serial Numbers:
TM036 XX X XXX
TM436 XX X XXX



USER NOTES

TABLE OF CONTENTS

Technical Assistance	4
Replacement Parts	4
Field Service Assistance	5
Warranty Information	6
General Information	7
Description of USA 20-BFF	7
Definitions	7
Optional Equipment	8
Additional Tape Heads	8
Can be installed on site	8
Cannot be installed on site	8
Optional Ski Width	9
Optional Ski Length	9
Important Safeguards	10
Safety Label Placement	11
Safety Label Descriptions	12
Machine Nameplate	14
Important Safeguards	15
Explanation of Signal Word Consequences	15
Operator Skill Level Descriptions	16
Specifications	17
USA 20-BFF Dimensions	17
Machine Components	18
Power Requirements	19
Operating Speed	19
Tape Specifications	20
Operating Conditions	20
Carton Specifications	20
Set-up Procedure	21
Receiving and Handling	21
Set up	21
Optional Equipment: Outfeed Table Installation	23
Optional Equipment: In-feed Table Installation (Continued)	24
Optional Equipment: Installation of External In-feed and Exit Conveyors	25
Connecting Utilities	26
Electrical Utilities	26
Operator Controls	27
Case Setup Procedure	29
Operating Instructions	30
Carton Jam Clearing	30
Preparing Cases to be Processed	31
Flap Folding	31
Troubleshooting	32
Motor Overload	32
Q & A	33
The Machine is Turned on and Nothing Happens	34
Case is Getting Crushed	35
Poor Tape Wipedown	36
Rear Tape Leg is Tabbing	37
Tape Does Not Cut	38
Maintenance	39
Drive Belt Replacement	40
Drive Belt Adjustment	41
Appendix A	42
Electrical Drawing	42
Appendix B	43
Parts Listing	43

TECHNICAL ASSISTANCE

This is the Interpack Model **Uniform Semi-Automatic Bottom Flap Folder Bottom Only (USA 20-BFF)** Side-Belt Case Sealer you ordered. It has been set up and tested in our factory with IPG manufactured pressure sensitive tapes. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this item.

If contact with the authorized distributor is not possible, **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-7pm) Eastern Time.

Phone: 813-345-3070

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

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 IPG Pressure Sensitive 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 IPG Pressure Sensitive 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

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

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

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

GENERAL INFORMATION

Description of USA 20-BFF

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 **USA 20-BFF** Case Sealer is designed to apply IPG brand pressure sensitive carton sealing tape to the top and/or bottom center seam of regular slotted corrugated cartons. The **USA 20-BFF** Case Sealer manually adjusts to a variety of case sizes and will automatically close the bottom flaps.

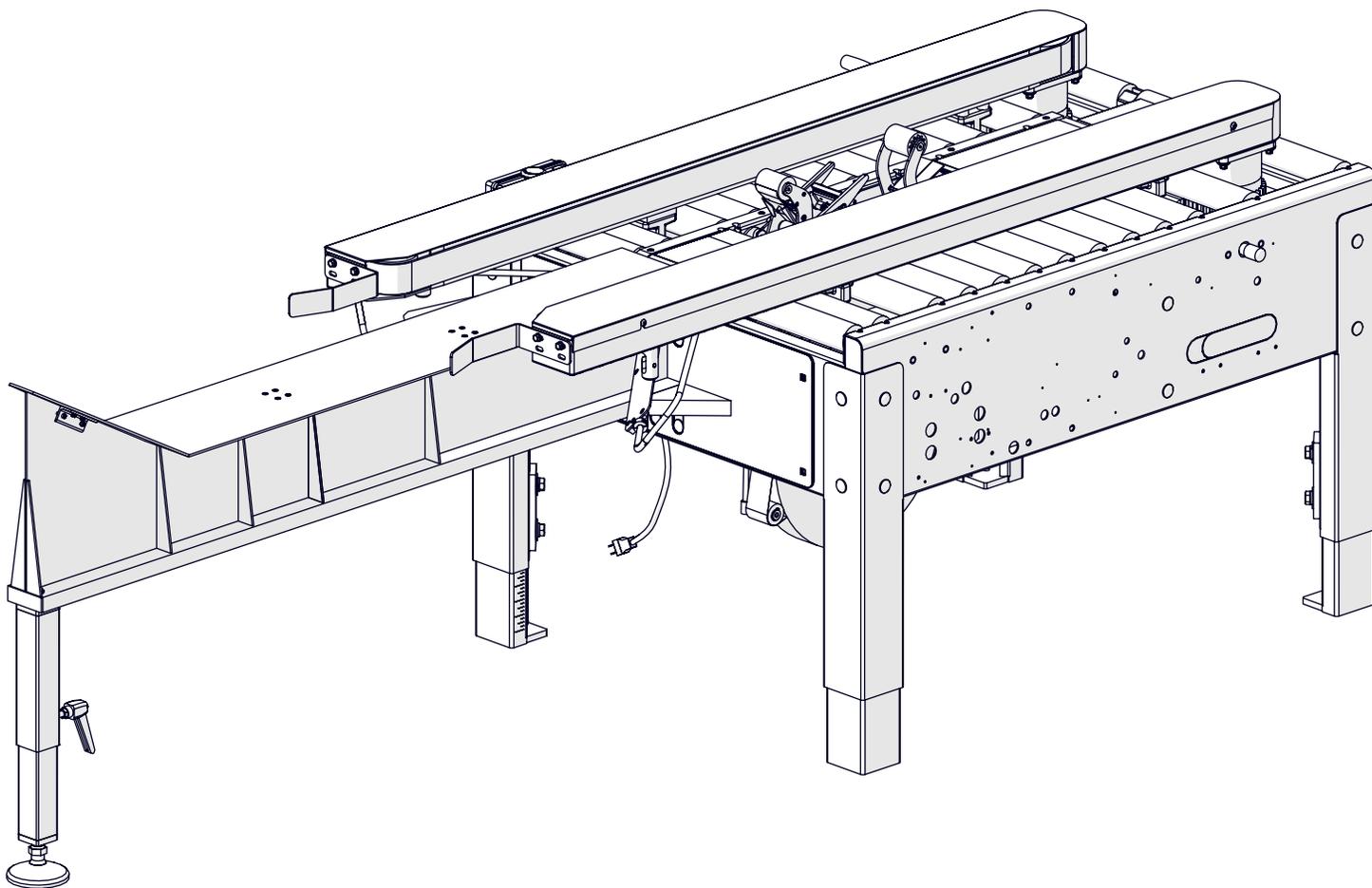


Figure 1: USA 2024-WAT BO

Definitions

Common terms that will be used throughout this manual.

Tape Head – This will refer to the ET Extreme or ETII Plus tape head(s) 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 USA 20-BFF 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.

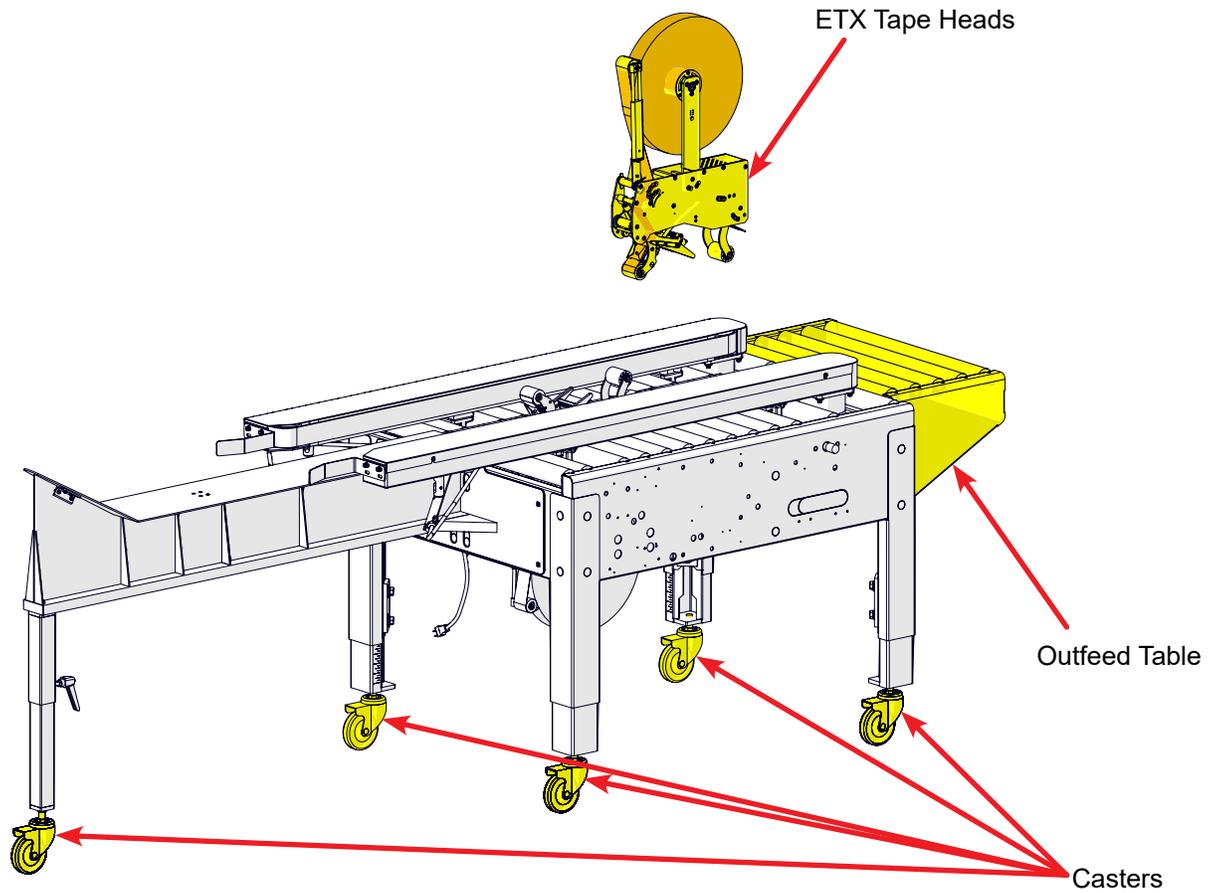


Figure 2: Optional Equipment

Additional Tape Heads

It is recommended to keep a spare 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
Outfeed Table .4M (16")	UM894T	1
Outfeed Table .6M (24")	UM998T	1
Outfeed Table .9M (36")	UM898T	1
Casters	UM711	1 set of 5 (36" Feed Table will require 2 additional casters)

Description	Item Number
2" ETX Tape Head	UH230TW
3" ETX Tape Head	UH430TW

Cannot be installed on site

Description	Item Number	Quantity Per Machine
4" High Drive Bases	USM8127 (right) and USM8128 (left)	1 each

OPTIONAL EQUIPMENT CONTINUED

The USA 20-BFF comes standard with an 8" wide ski that has a 24" long workspace. There are some standard options for changing the width of the ski as well as the length of ski. It is recommended that the ski width be 1" narrower than the largest carton that will be processed. Longer skis allow for multiple cartons to be staged ahead of the belts to allow for multiple operators packing simultaneously. Please consult your Authorized IPG Representative for the correct configuration for your needs.

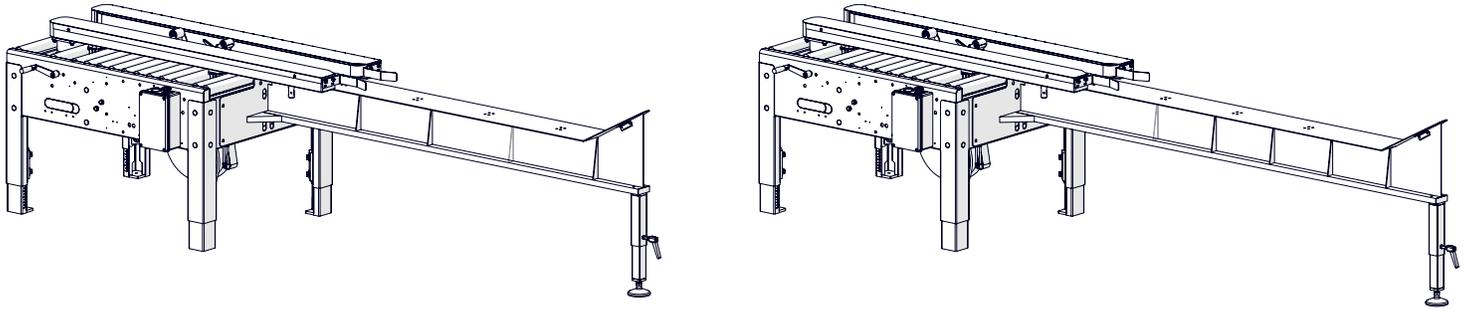


Figure 3: Optional Ski Length

Optional Ski Width

Description	Item Number	Quantity Per Machine
3" Wide Ski (for cartons 4" in width)	UPE0238	1
4" Wide Ski (for cartons 5" in width)	UPE0343	1
6" Wide Ski (for cartons 7" in width)	UPM2848	1

Optional Ski Length

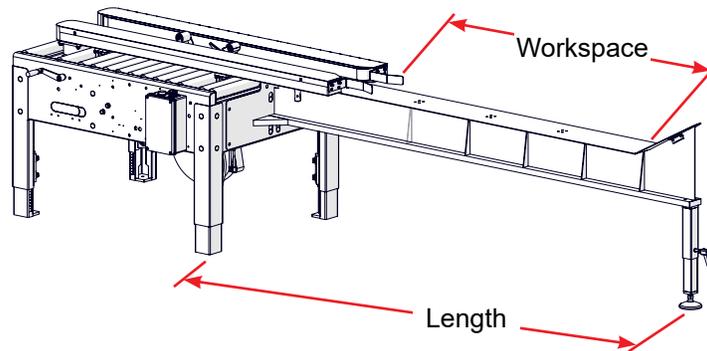


Figure 4: Ski Nomenclature

Description	Item Number	Quantity Per Machine
BFF Ski Assembly 58" Long 40" Workspace	USM0870	1
BFF Ski Assembly 74" Long 56" Workspace	USM0871	1
BFF Ski Assembly 84" Long 66" Workspace	USM0872	1

IMPORTANT SAFEGUARDS

There are a number of safety labels used on the **USA 20-BFF** 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 PLACEMENT

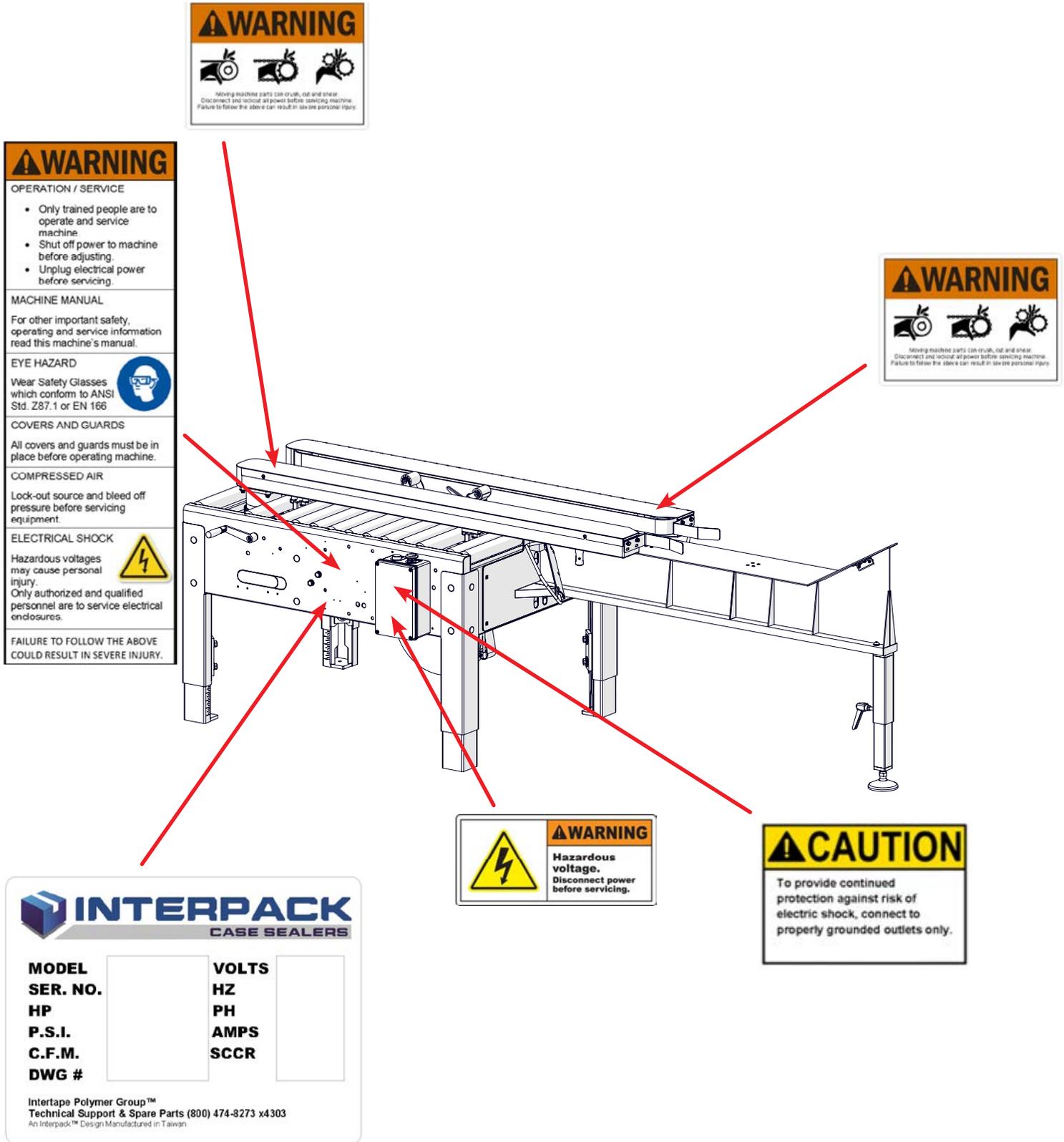


Figure 5: Safety Label Placement

SAFETY LABEL DESCRIPTIONS

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

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



Figure 6: Drive Base Hazard

The label shown is affixed to the electrical control box.

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



Figure 7: Hazardous Voltage

The label shown is affixed to the electrical control box.

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



Figure 8: Ground Connection

SAFETY LABEL DESCRIPTIONS CONTINUED

The label shown is located on the side of the column.

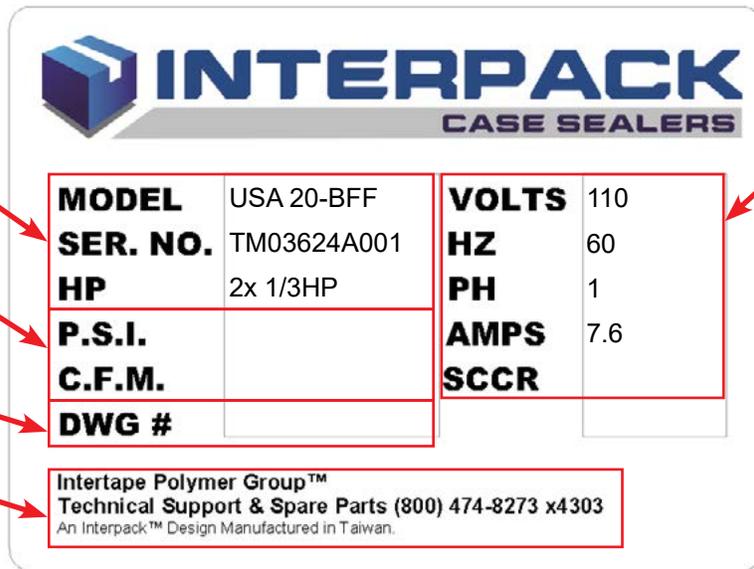
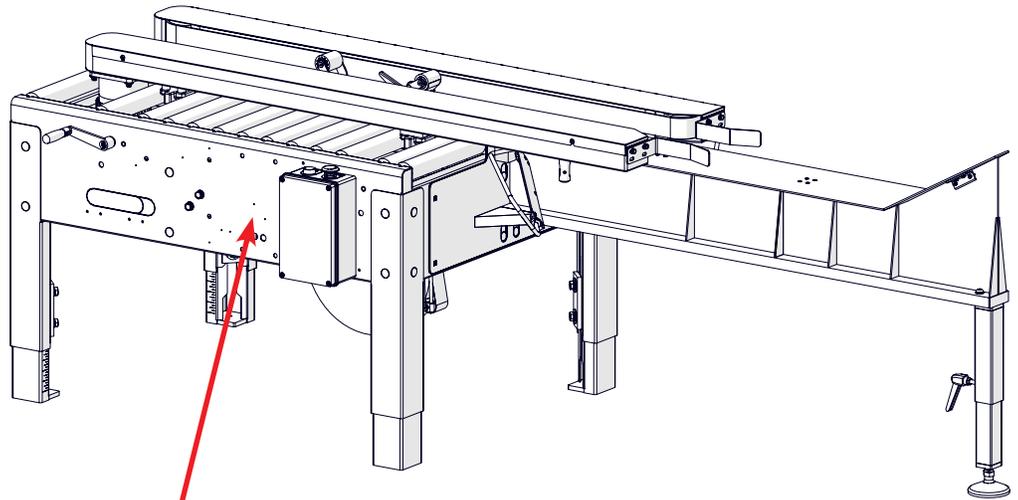
This label provides convenient safety instructions for the operator and service personnel in the operation of the IPG Case Sealing Equipment.



Figure 9: Safety Instructions

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

MACHINE NAMEPLATE



Machine Identification and Motor Power

Machine Electrical Requirements

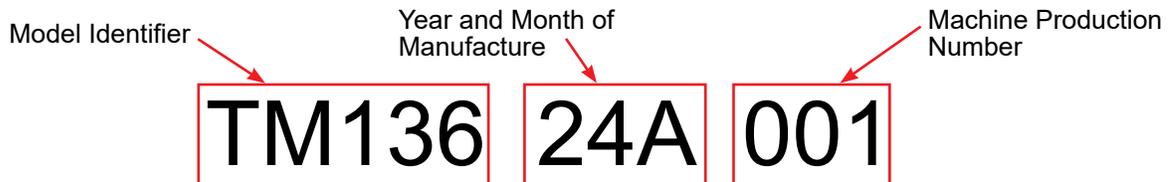
Machine Pneumatic Requirements if applicable

Applicable Machine Drawing Number

Manufacturer Details

Figure 10: Machine Nameplate

Reading Interpack Serial Numbers



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

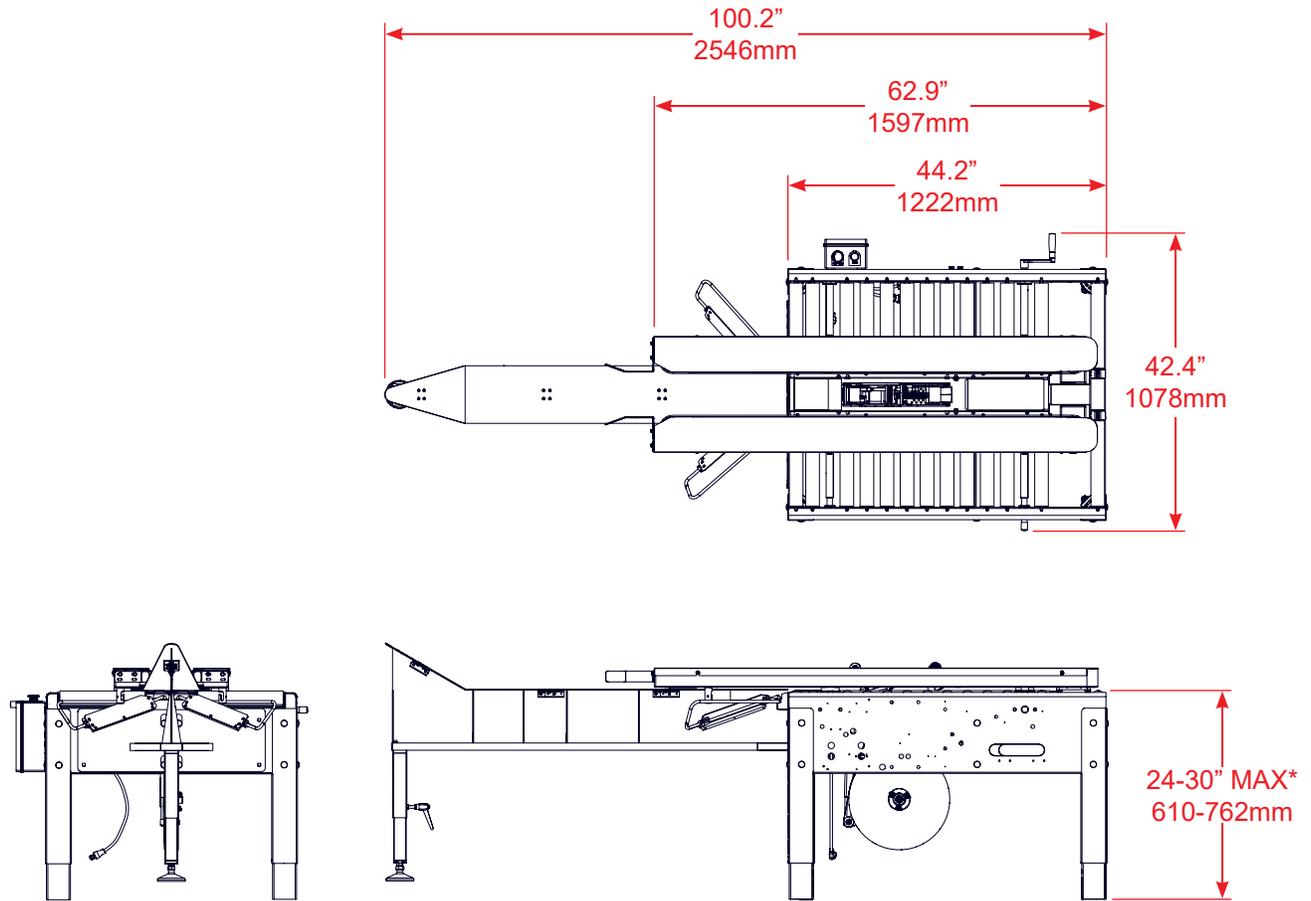
OPERATION	MACHINE CONDITION	OPERATOR SKILL LEVEL	NUMBER OF OPERATORS
Tape Roll Replacement	Stopped by pressing the Emergency Stop Button	A	1
Blade Replacement	Electrical Power Disconnected	B	1
Ordinary Maintenance and Preventative Maintenance	Electrical Power Disconnected	B	1
Extraordinary Mechanical 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

USA 20-BFF Dimensions

Machine Weight: 679 lbs. (308kg)



* Height notated is with standard legs. If a different range is necessary please contact your Authorized IPG Representative for additional conveyor height options. If optional casters are added they will add 4" (102mm).

Figure 11: Machine Dimensions

SPECIFICATIONS

Machine Components

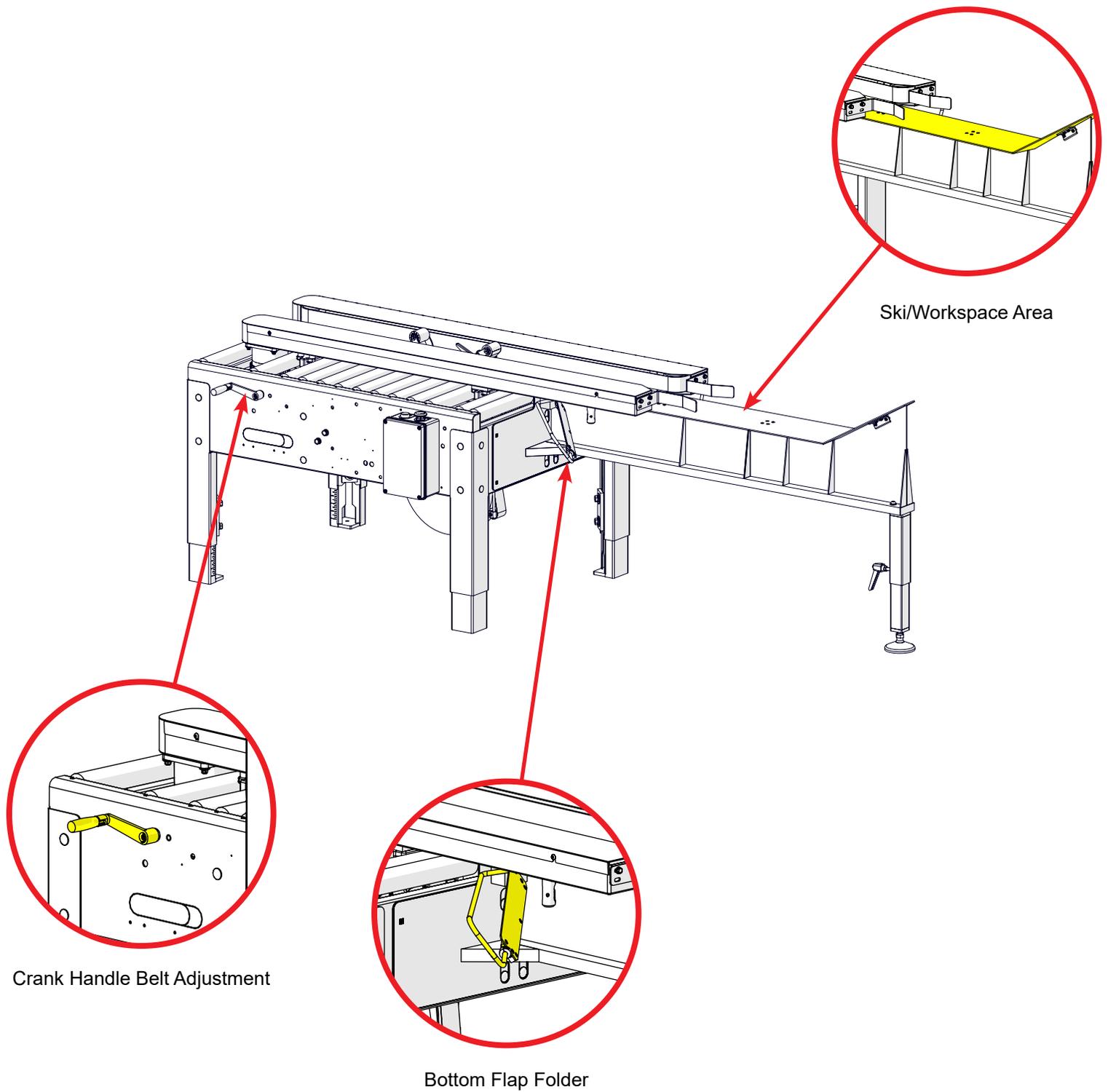


Figure 12: Machine Components

SPECIFICATIONS

Power Requirements

Electrical: **110v, 60HZ, 5A (560 Watts)**

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

The electrical box/control box contains a Start Button and Emergency Stop.

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.

Operating Speed

Belt speed is 82 ft./min (24.9 m/min). Boxes must be separated by 14 in. (356mm).

Cases Per Minute by Case Length

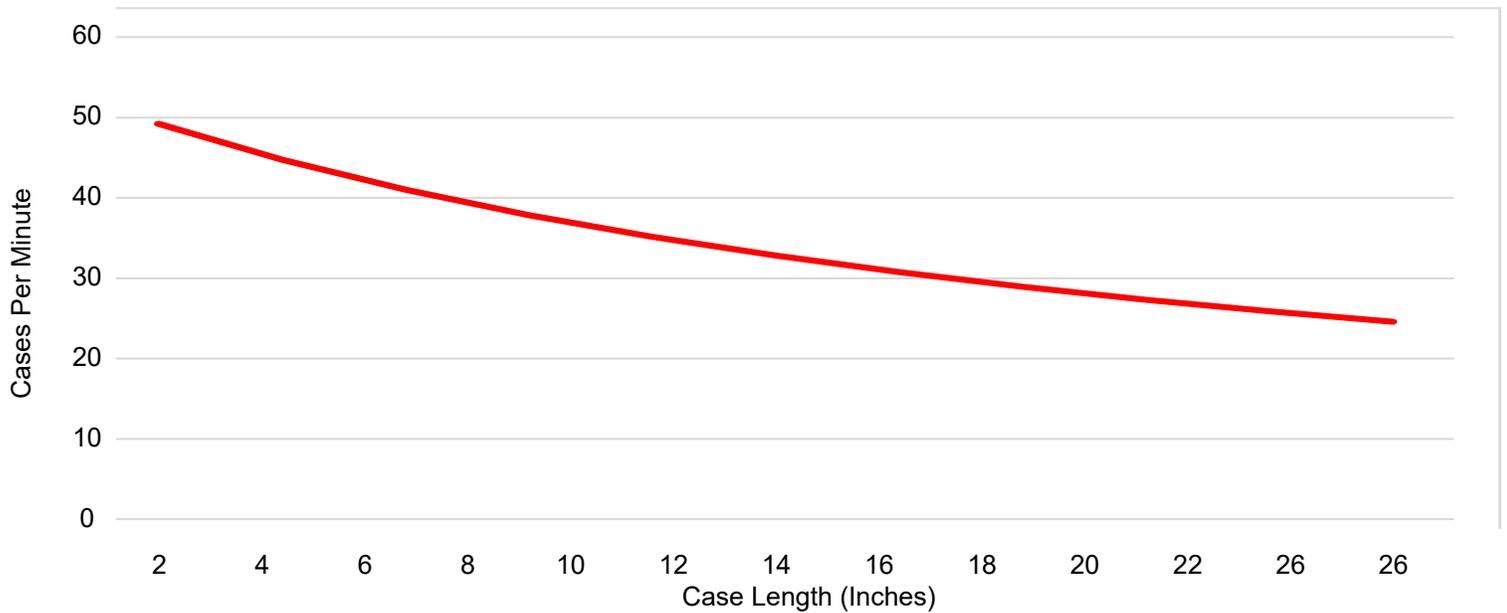


Figure 13: Cases Per Minute

SPECIFICATIONS

Tape Specifications

Use only **IPG Pressure Sensitive Tape**. The machine can accommodate both 2" and 3" tape heads.

Please refer to the tape head manual for the tape head in your machine for more specific details on setting up your tape head(s).

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.

Carton Specifications

Type

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

Material

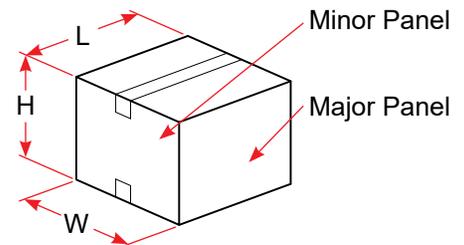
- 125 to 175 PSI bursting test, single or double wall, B or C flutes
- Other styles may be processed. Consult factory.

Weight

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

Size

Carton Size	Length	Width	Height
Minimum	8.5" (127mm)*	8.5" (127mm)*	2" (50mm)**
Maximum	Infinite	20" (508mm)	Infinite



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

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

* Minimum carton width and length is determined by the ski width. A standard 8" wide ski is included. If other ski sizes are needed please consult the Optional Equipment section. Consult your Authorized IPG Representative or IPG Machinery Support if you have questions or concerns. A box minimum width is 0.5" greater than the ski width.

** A minimum height of 2" is possible as long as the width of the carton is 8" or greater. If the box width is narrower than 8" then a minimum height of 3.5" is possible.

SET-UP PROCEDURE

Receiving and Handling

The Interpack USA 20-BFF is shipped to the customer in a box and fixed to a pallet. The machine is enclosed with either a corrugated sleeve and cap or an HSC corrugated box. The sequence below is step by step instructions to remove all packing materials.

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

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

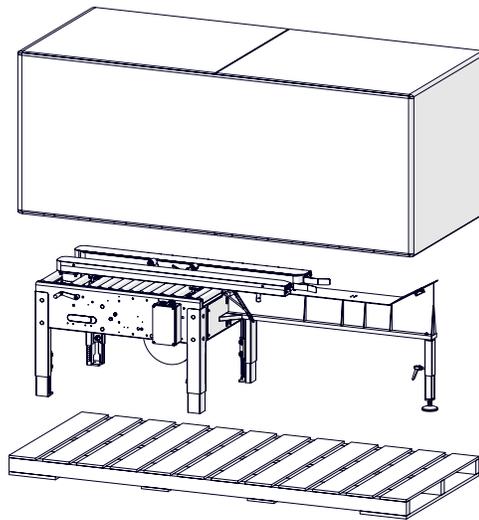


Figure 14: Unboxing

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 six (6) telescopic adjustment legs to accommodate conveyor heights from 24 in. to 30 in. Consult with the factory for any other conveyor heights that may be required. Optional Casters add 4 in. to the conveyor height.

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.

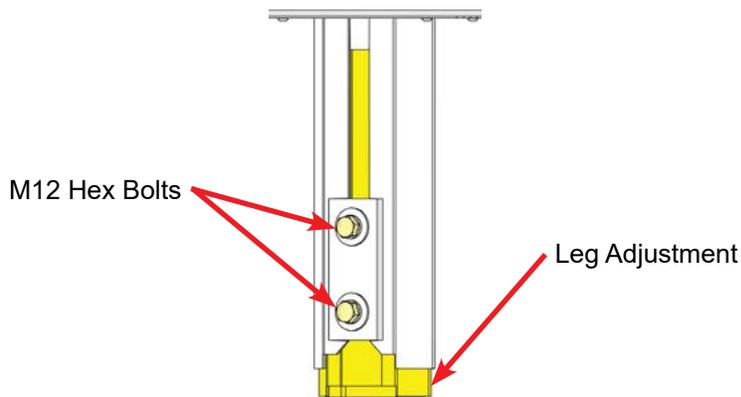


Figure 15: Leg Adjustment

Customer supplied exit conveyor (if used) should be straight and declined no more than 1 in./yard (5 cm/meter) away from the Case Sealer to convey the sealed cartons away from the machine.

SET-UP PROCEDURE



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

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

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



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

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

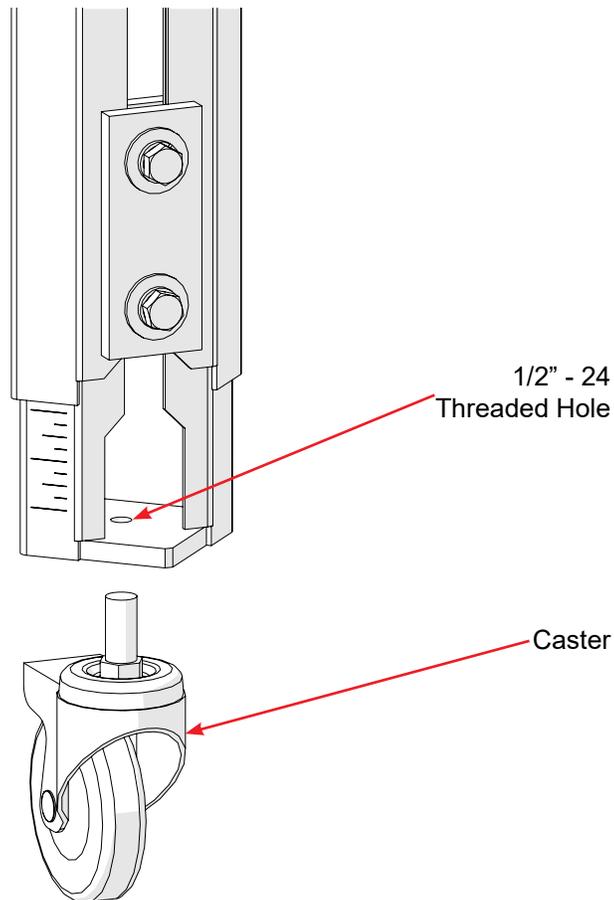


Figure 16: Caster Installation

SET-UP PROCEDURE

Optional Equipment: Outfeed Table Installation

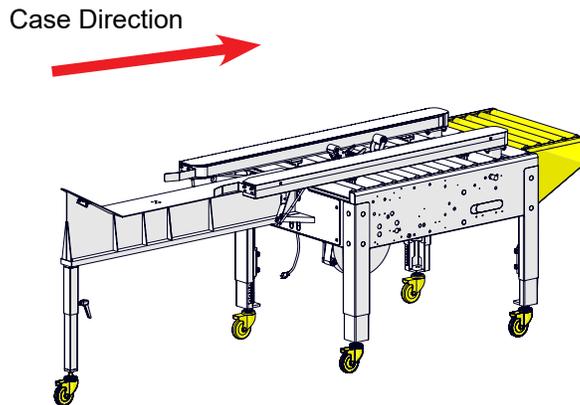


Figure 17: Case Direction

The USA 20-BFF can only accept an Outfeed Table. Where a traditional Infeed Table would be mounted the ski support is mounted.

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

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

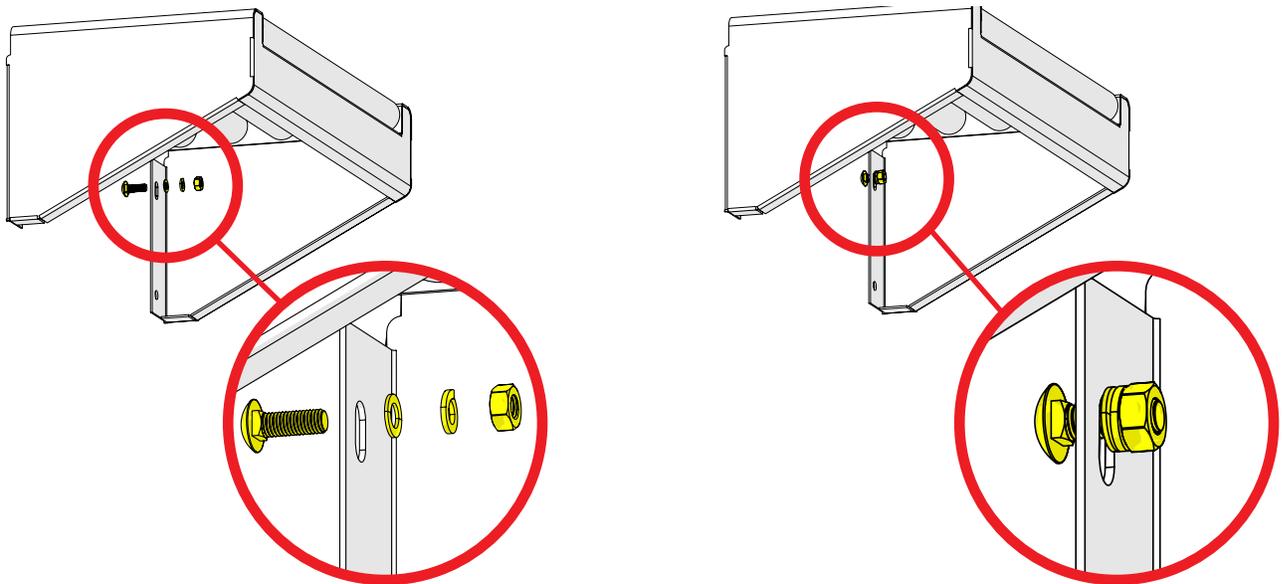


Figure 18: Carriage Bolt Assembly

SET-UP PROCEDURE

Optional Equipment: In-feed Table Installation (Continued)

1. 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.

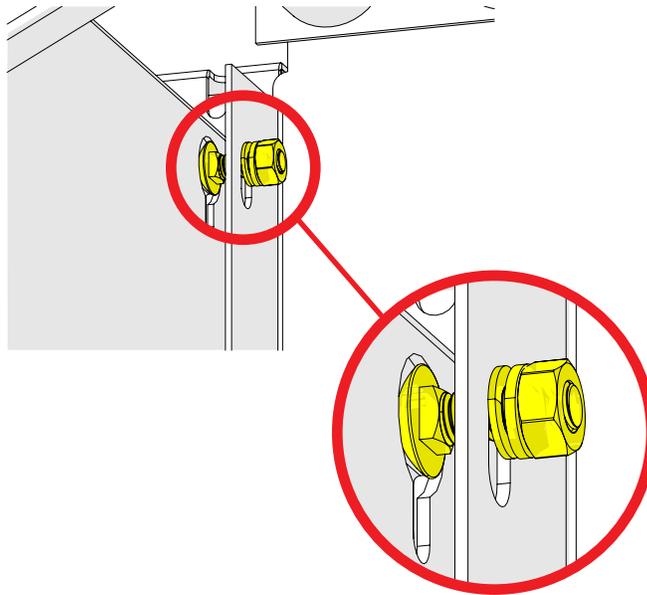


Figure 19: Table to Machine Base Installation

2. 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.
3. After all four mounting studs and included hardware have been installed, tighten all hardware to avoid roller table instability then install rollers on table.

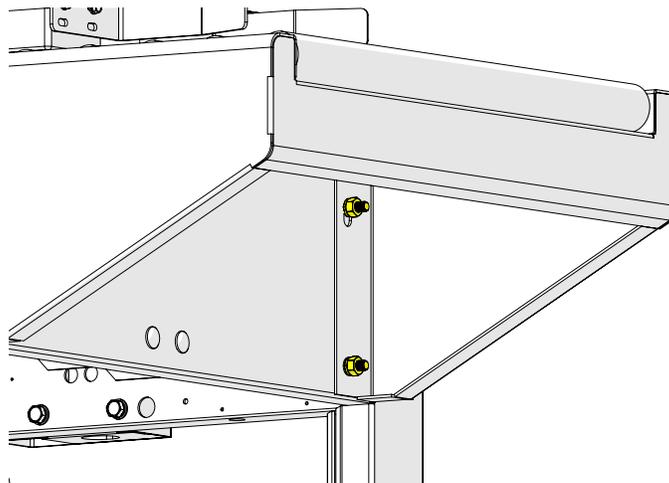


Figure 20: Remaining Carriage Bolt Installation

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.

The USA 20-BFF can only accept an Outfeed Conveyor.

1. Customer supplied gravity exit conveyor (if used) should be straight and declined no more than 1 in./yard (5 cm/meter) away from the machine to convey the sealed cartons away from the machine.
2. Customer supplied powered exit conveyor should be straight and level to convey the sealed cartons away from the machine.

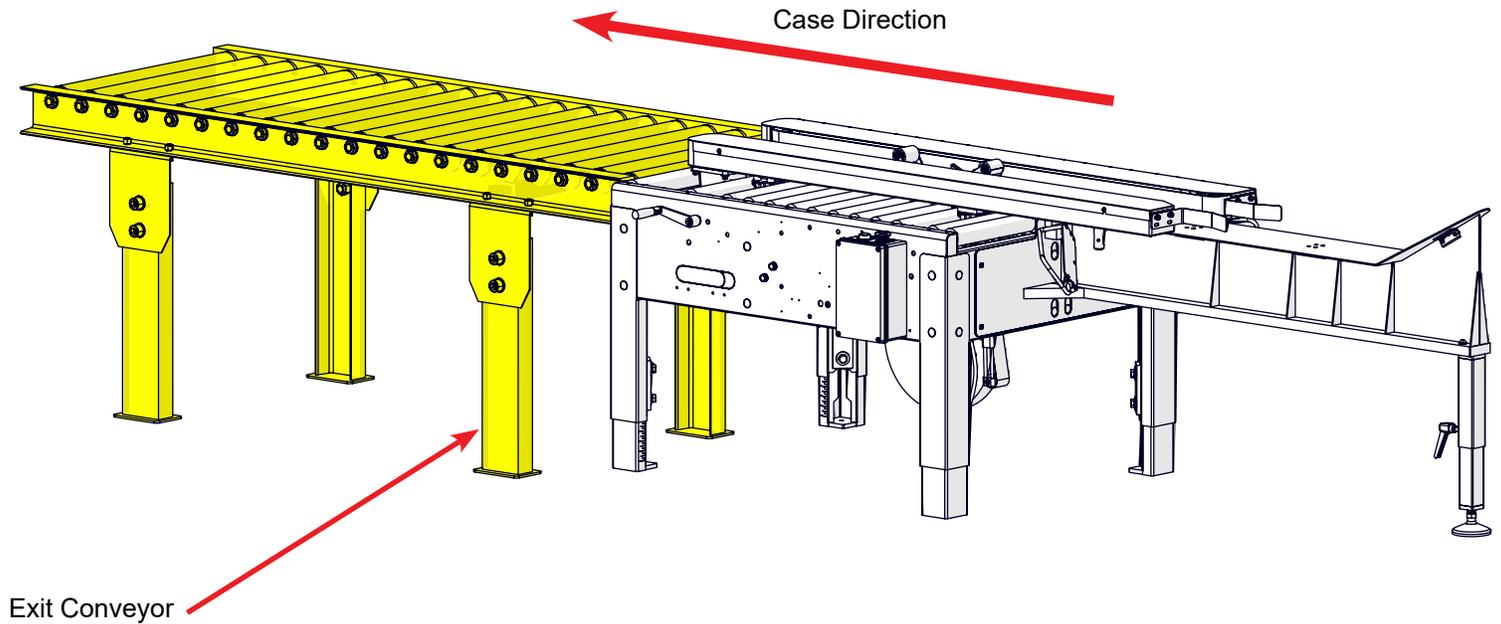


Figure 21: Installing Exit Conveyors

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 **USA 20-BFF Case Sealer**. It also contains the operator controls of a Start Button and Emergency Stop.

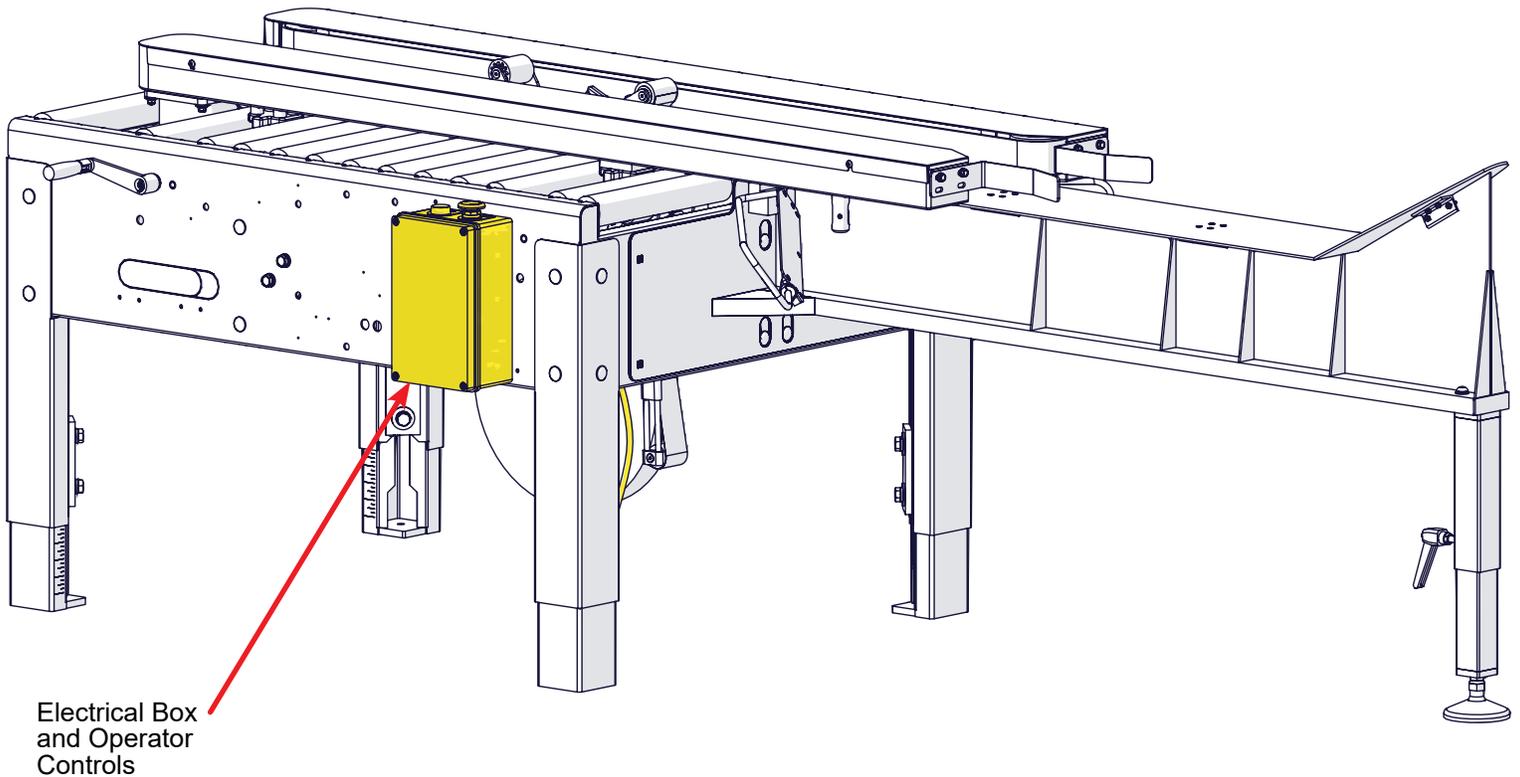


Figure 22: Electrical Utilities

The electrical 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.

OPERATOR CONTROLS

Operator controls are located on the top of the Electrical Box.

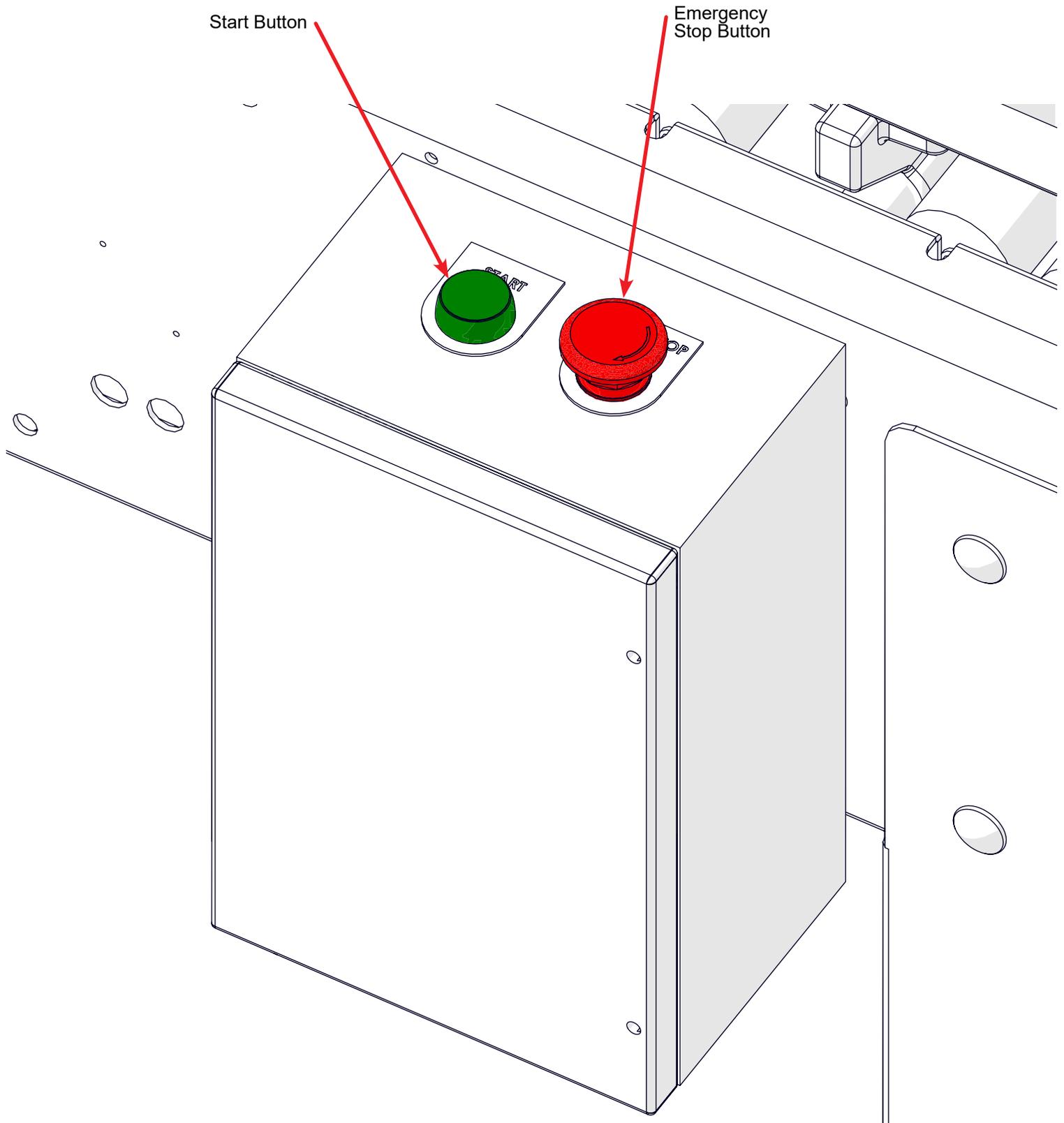


Figure 23: Operator Controls

REMOVING/REPLACING THE BOTTOM TAPE HEAD

Tape heads may be removed for a variety of reasons including reloading tape and performing preventative maintenance.

1. Bottom Tape Heads are held in place by gravity. If not already, use the crank handle to open the belts.
2. Remove the gap fill plate if one is installed then lift the tape head straight out of the base of the case sealer.

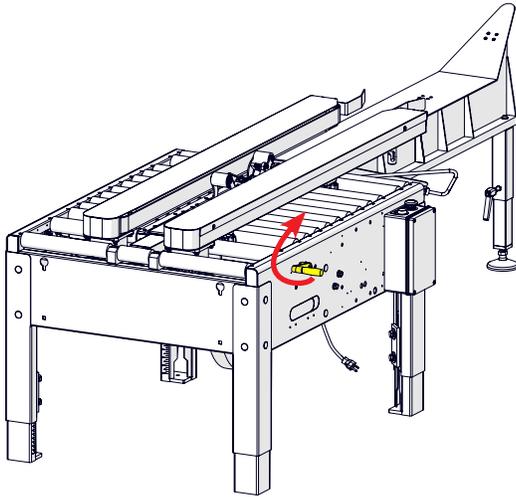


Figure 24: Bottom Tape Head Removal 1

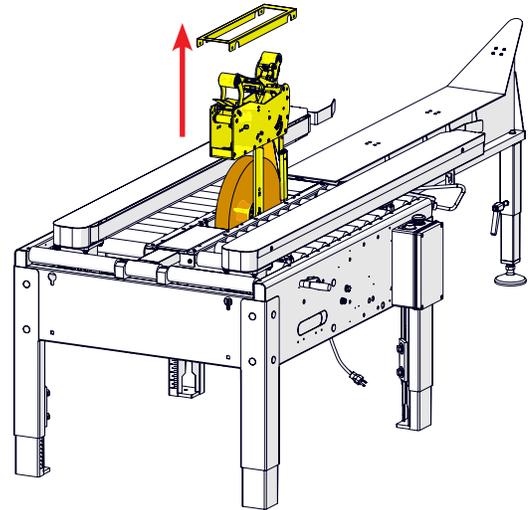


Figure 26: Bottom Tape Head Removal 3

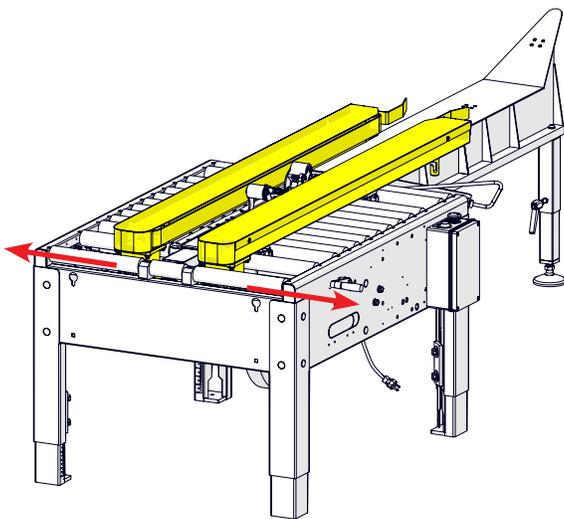


Figure 25: Bottom Tape Head Removal 2

CASE SETUP PROCEDURE

Setting up the **USA 20-BFF** to process a case size is quick and easy. When performing any setup procedure press the Emergency Stop to prevent any unintended action or motion.

1. Press the Emergency Stop to prevent any unintended action or motion.
2. Fold all of the flaps on the carton and place it between the belts at the rear of the machine.
 - If the carton does not immediately fit you may need to use the crank handle to open the belts.
 - If the carton does not immediately fit under the bridge you may need to unlock the bridge using the locking handle and raise the bridge all the way.
4. Disengage the Emergency Stop and press the Green Start button to eject the carton from the machine.

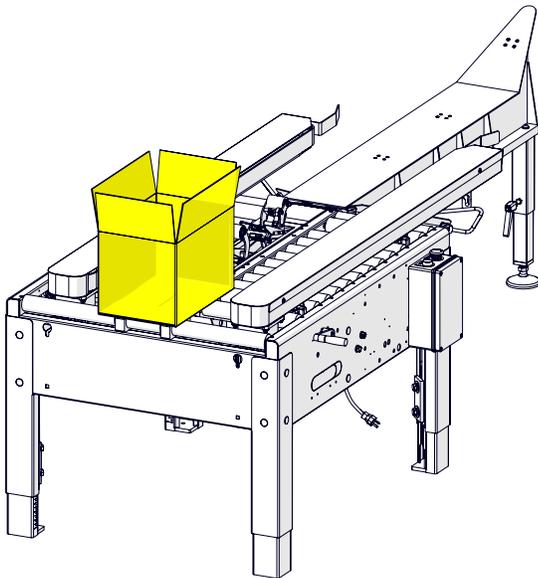


Figure 27: Place Carton in Machine

3. Use the crank handle to bring the belts in. They should be pressed against the carton firmly so it cannot easily be pulled out by hand. Do not over tighten the belts.

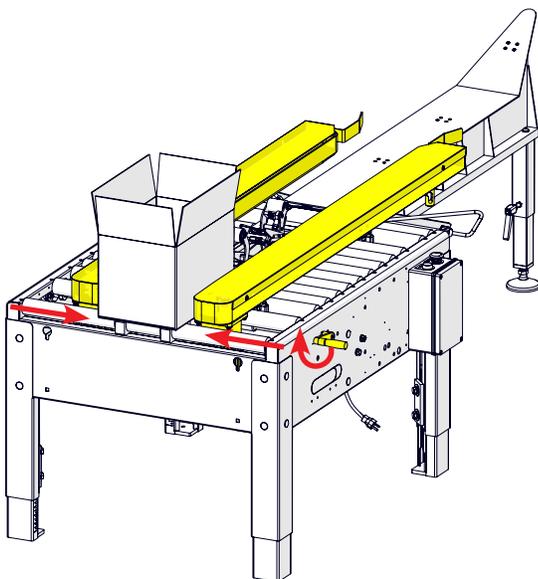


Figure 28: Tightening the Belts

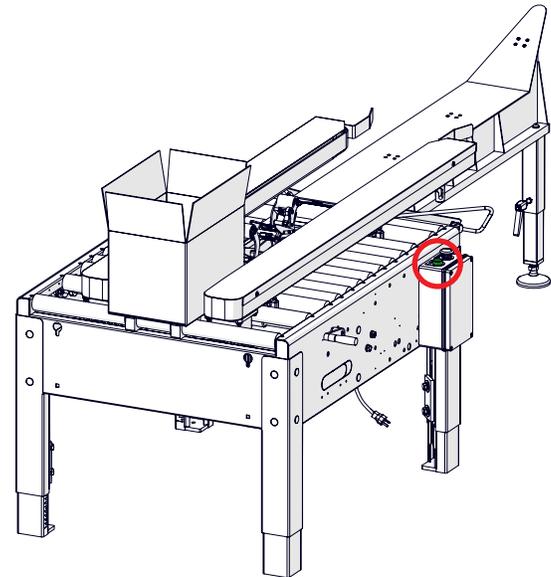


Figure 29: Removing Carton from Machine

The case sealer is now set up and ready to be used.

OPERATING INSTRUCTIONS

The following instructions are presented in the order recommended for processing cases through the **USA 20-BFF** Case Sealer.

1. Install and thread tape on the tape head (refer to the tape head manual).
2. Supply or connect machine to 110V electrical supply (refer to Electrical Utilities).
3. Follow the Case Set-up Procedure if the case sealer is not already set up.
4. Twist the Emergency-Stop clockwise to disengage.
5. Press the Green Start button to begin machine operation.
6. Cartons can be set up on the ski. The bottom minor flaps must be folded in.
7. Operators may pack the carton on the ski.
8. The operator can now push the carton into the belts.
9. The belts will take the carton into the case sealer. The bottom flaps will be closed automatically by the bottom flap folders.
10. The tape head will then apply a single strip of tape to the center of the bottom of carton.
11. Cartons will be ejected out the back of the case sealer and onto any outfeed tables or conveyors if being used.



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



WARNING: KEEP HANDS, HAIR, LOOSE CLOTHING, AND JEWELRY AWAY FROM MOVING BELTS, AND TAPE HEADS

When feeding cartons into the Case Sealer bottom minor 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 or case jams.

In the event of a case jam follow the below procedure. Do not attempt to clear a jam while the case sealer is on. Press the Emergency Stop button before proceeding.



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 COMPONENTS UNDER SPRING PRESSURE. NOT FOLLOWING THE PROPER CASE JAM CLEARING METHODS CAN RESULT IN INJURY.

Carton Jam Clearing

1. Press the Emergency Stop.
2. Using the crank handle slightly open the belts. Use caution as the tape head may be under spring pressure.
3. The carton can be removed by hand.
4. If tape is attached to the carton use scissors to cut the tape free.
5. Inspect the tape head for any damage or mis-threaded tape.
6. Using scissors, cut the tape close to the application roller of the tape head. Do not use a razor knife. Do not cut the tape against the rollers. Damage to the rollers will cause poor tape application.
7. Follow the Carton Set-up Procedure to reset the machine.
8. The first box processed after clearing a jam may have longer than normal front tape legs that may need a hand wipedown as the legs can be longer than the arms can reach.

PREPARING CASES TO BE PROCESSED

Flap Folding

The **USA 20-BFF** is a bottom only case sealer that will automatically close the bottom major flaps. The following procedure is recommended for its ease but there are several ways to prepare cartons to be processed through the **USA 20-BFF**. Finding the method that is easiest and most ergonomic may depend on each operator.

1. Open the flat carton and grip the top major flaps.
2. Position the carton over the ski and press the front minor flap into the ski so it folds in.
4. The carton can be positioned in the carton retaining clamps on the belt drives for any packing that needs to happen.

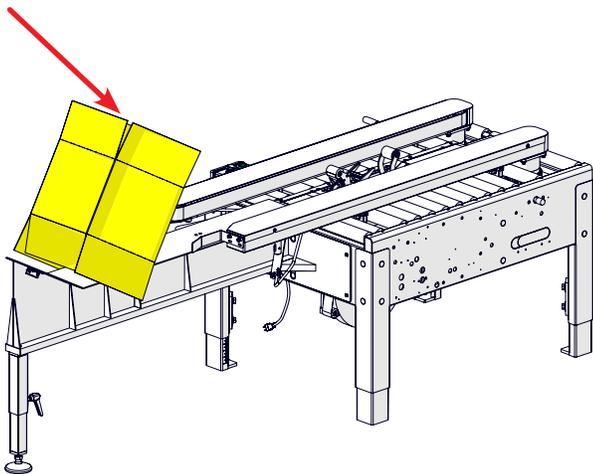


Figure 30: Carton Set-up Procedure 1

3. Pull the carton towards the angled portion of the ski. It will impact the bottom rear minor flap and fold it in.

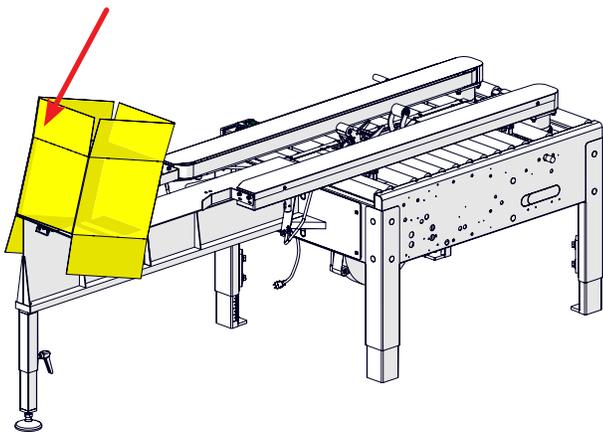


Figure 31: Carton Set-up Procedure 2

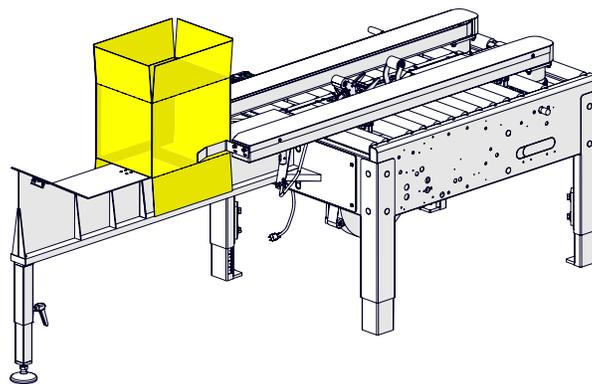


Figure 32: Carton Set-up Procedure 3

5. The operator can push the carton into the belts until they automatically take the carton.
6. The bottom major flaps will close when they impact the bottom flap folder.

TROUBLESHOOTING

The USA 20-BFF 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 pages. If the problem you encounter is not discussed in these pages, call IPG Machinery Support 813-345-3070.

Motor Overload

In the event the Start button is pressed and a motors do not start it is recommended to check the motor overloads in the electrical box.

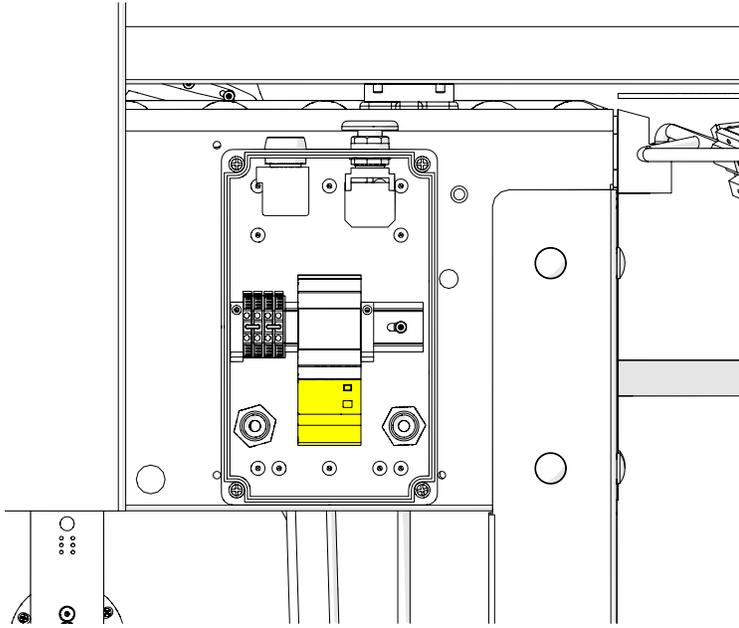


Figure 33: Motor Overload Location

The electric motors are protected with an automatic re-settable overload. Push on the top blue button to reset. The current setting should be set at 110% of the FLA (Full Load Amps) of a single motor.

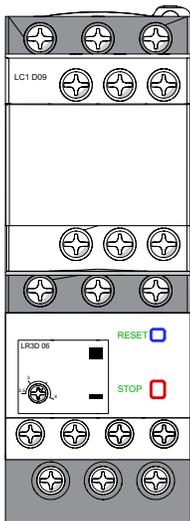


Figure 34: Motor Overload Reset

In the event the motor continues to trip the overload the adjustable scale may be increased a small amount. On the Thermal Overload, protected by the hinged cover, is the adjustable dial.

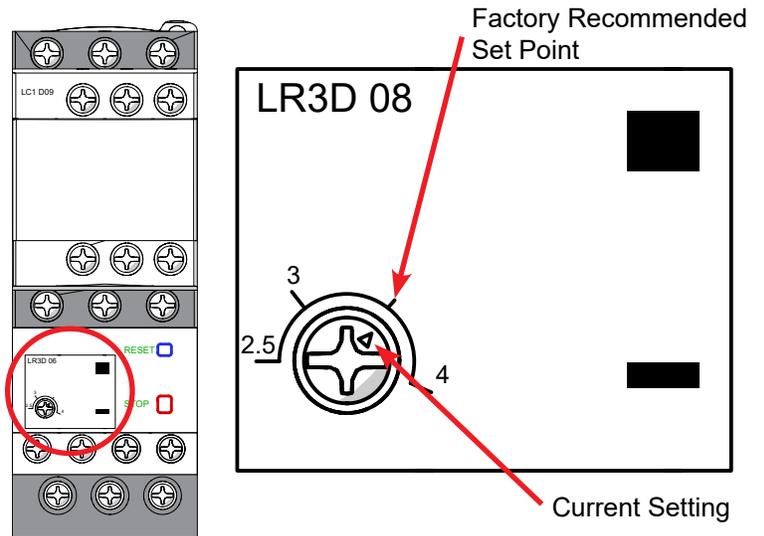


Figure 35: Motor Overload Adjustment

From the factory this dial should be set with the arrow pointing towards the shown point above.

In some cases this dial may be set too low resulting in false overloads. This will most likely be noticed when processing cases near the maximum weight limits of the case sealer.

TROUBLESHOOTING

Q & A

The USA 20-BFF Case Sealer is fabricated with high quality components that provide trouble-free operation for a long period of time. However, should a problem occur, we recommend that you consult the following troubleshooting guides. If the problem you encounter is not discussed in this section, call IPG Technical Support.

IPG Machinery Support is available Monday through Friday from 8am until 7pm Eastern Time 813-345-3070 or machsupp@itape.com.

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

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

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

Q: Are the top and bottom tape heads interchangeable?

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

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

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

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

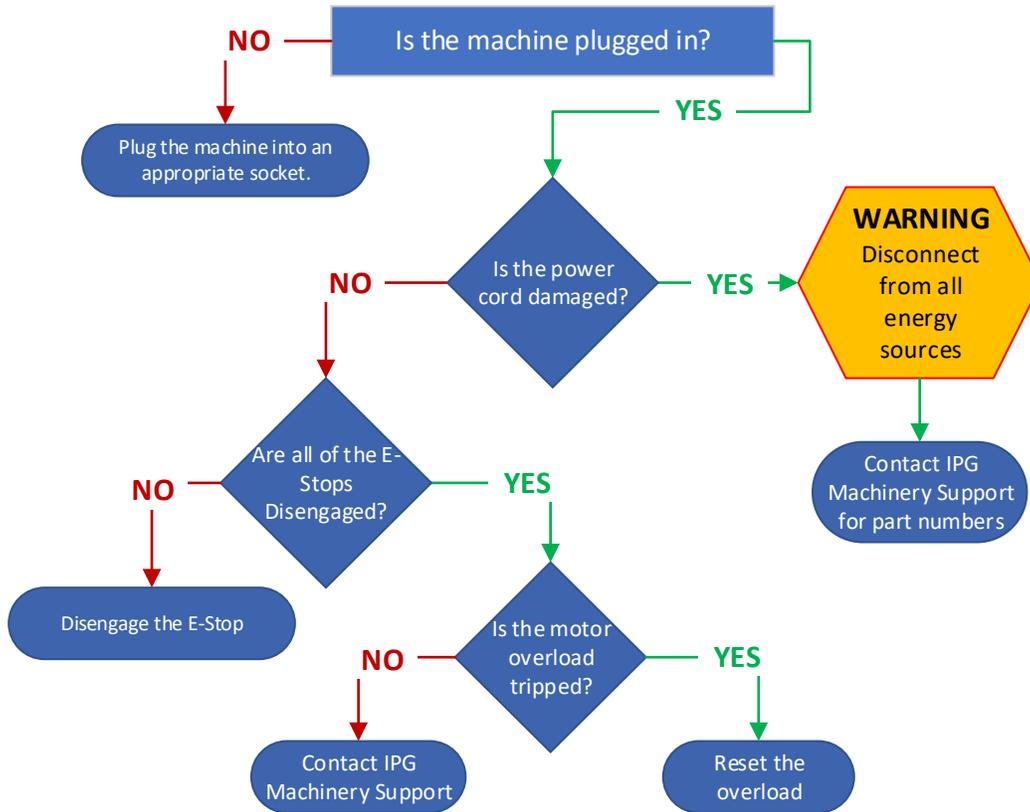
It is recommended to clean the tape path with a mild detergent and water solution. Do not use any harsh industrial cleaners as they can deteriorate parts quickly. Do not use excessive amounts of water and dry the tape head soon after washing.

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

Standard IPG tape heads cannot be modified in this way, however, both ET 2Plus and ETX tape heads are available in mirror versions. These are available in both 2" and 3" tape heads.

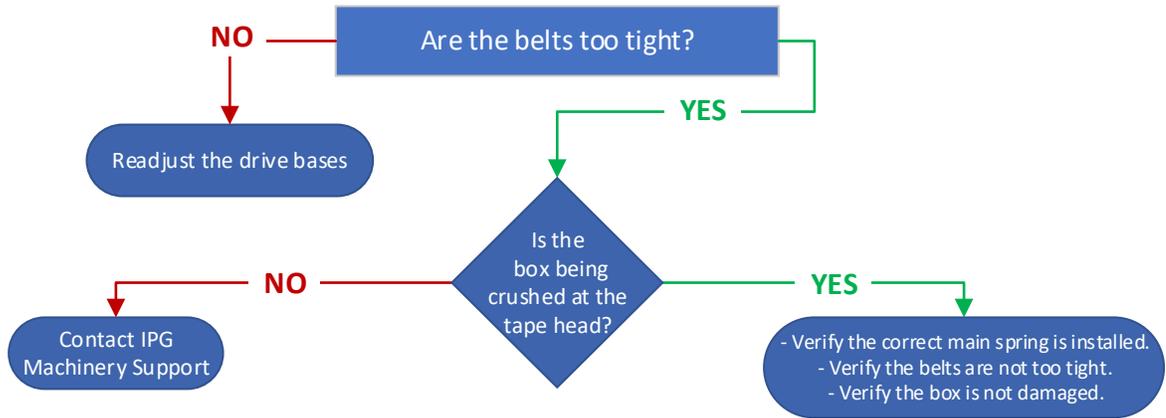
TROUBLESHOOTING

The Machine is Turned on and Nothing Happens

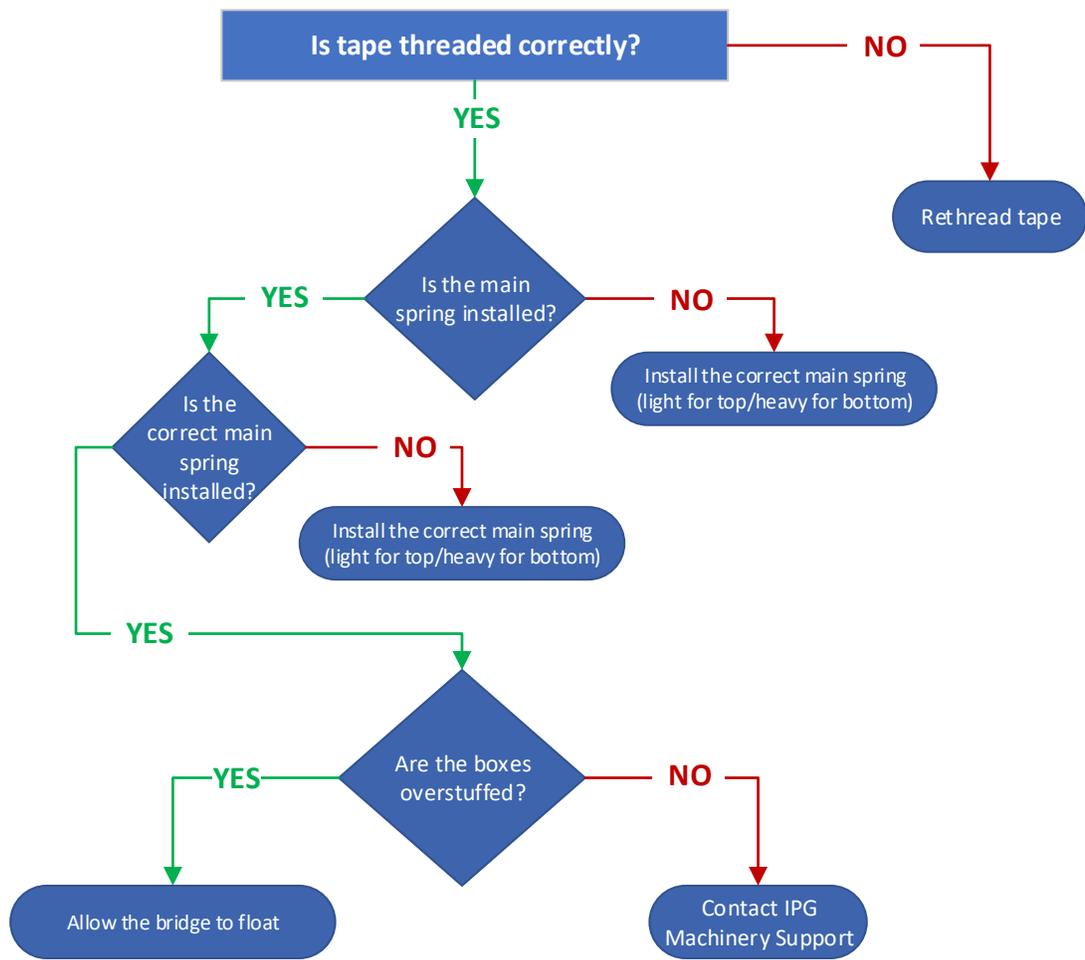


IPG Machinery Support
877-447-4832 Option 4

Case is Getting Crushed

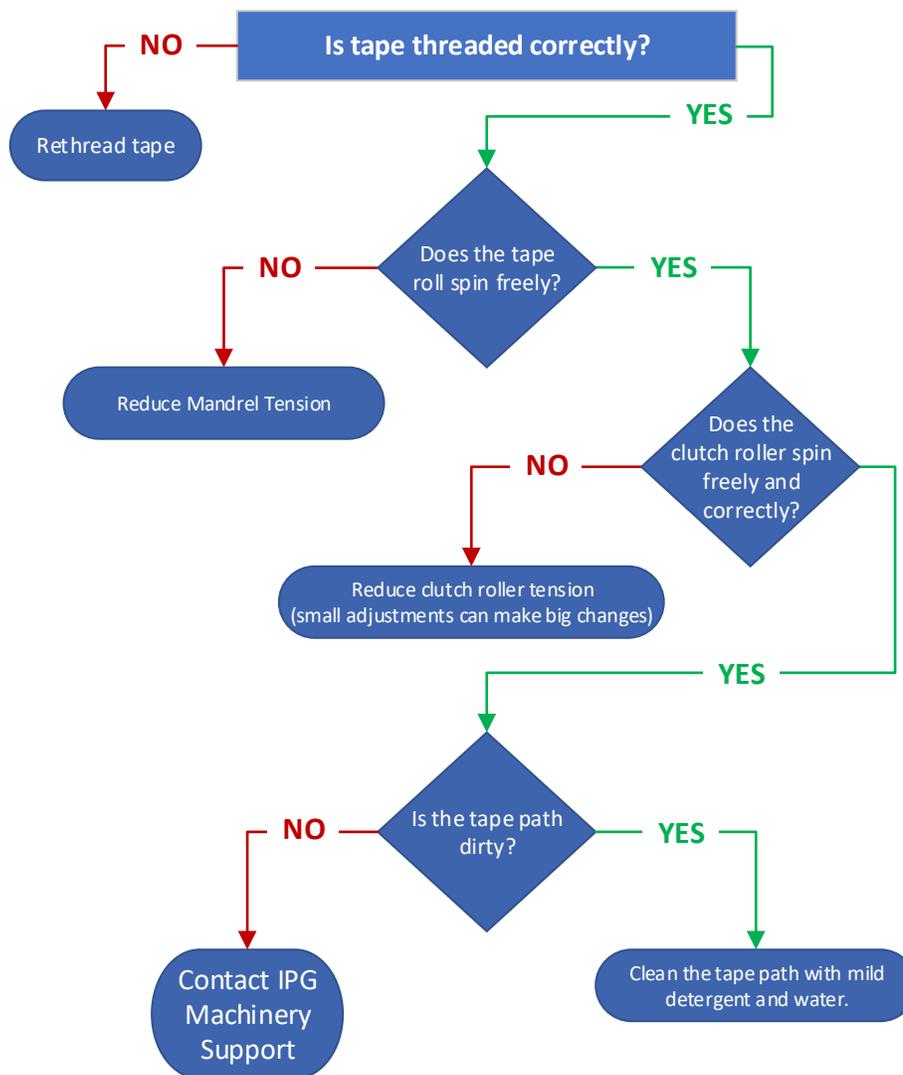


Poor Tape Wipedown



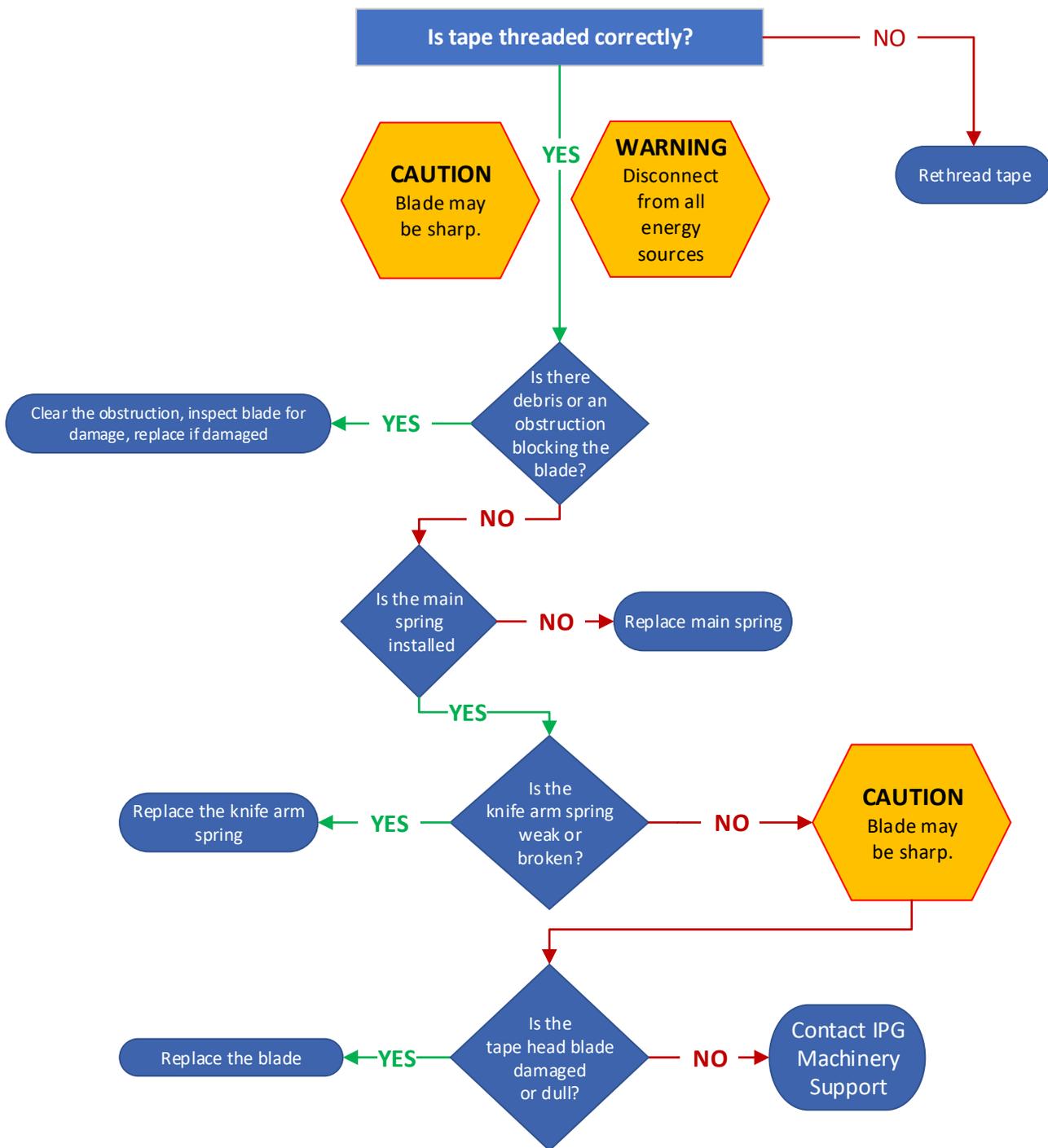
IPG Machinery Support
877-447-4832 Option 4

Rear Tape Leg is Tabbing



IPG Machinery Support
877-447-4832 Option 4

Tape Does Not Cut



IPG Machinery Support
877-447-4832 Option 4

MAINTENANCE

The **USA 20-BFF** Case Sealer has been designed and manufactured with the finest components to provide long, trouble-free performance. General preventive maintenance will improve performance and prolong the life of the case sealer. Review the illustrations and chart below for information regarding machine maintenance.



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

Lubrication:

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

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

No other lubrication is necessary to operate the machine.

Cleaning:

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

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

Recommended Spare Parts:

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

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

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

MAINTENANCE

Drive Belt Replacement

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

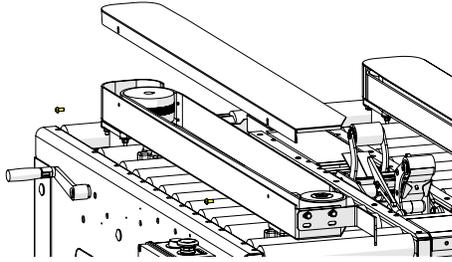


Figure 36: Drive Base Cover

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

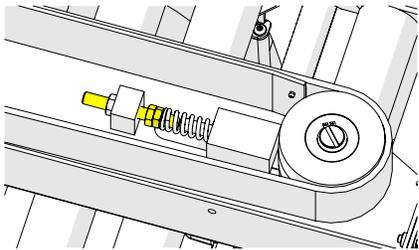


Figure 37: Loosen Belt Tension Bolt

3. Remove worn belt and replace with new belt.

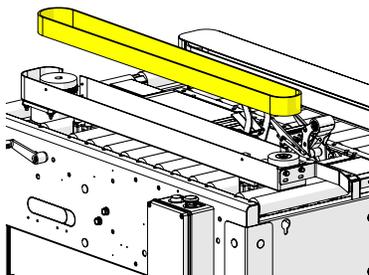


Figure 38: Replace Belt

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

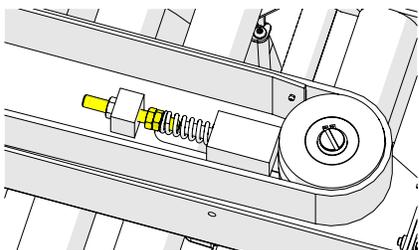


Figure 39: Tighten Belt Tension Bolt

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

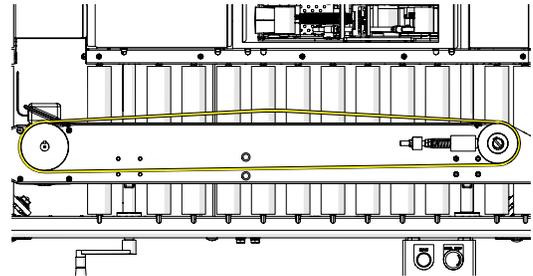


Figure 40: Proper Belt Tension

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

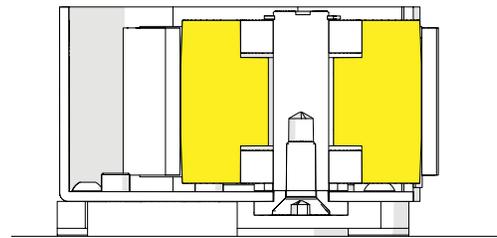


Figure 41: Self-Center Pulley

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

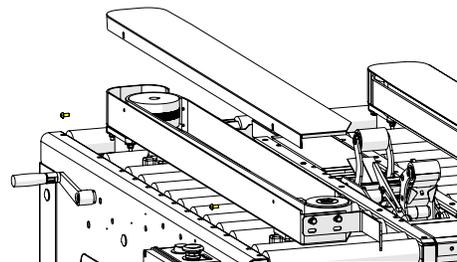


Figure 42: Drive Base Cover

MAINTENANCE

Drive Belt Adjustment

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

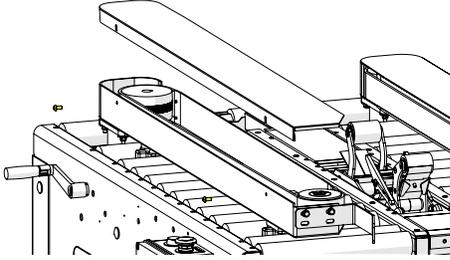


Figure 43: Drive Base Cover

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

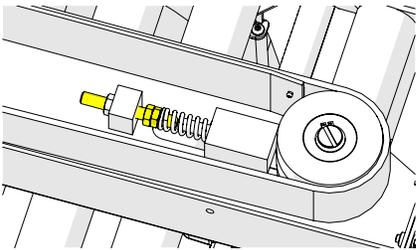


Figure 44: Tighten Belt Tension Bolt

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

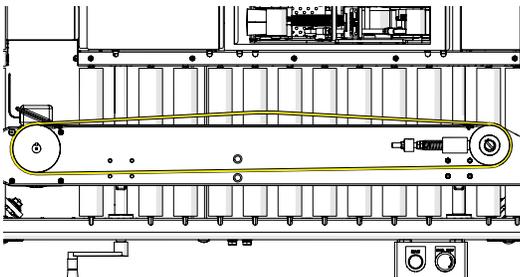


Figure 45: Proper Belt Tension

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

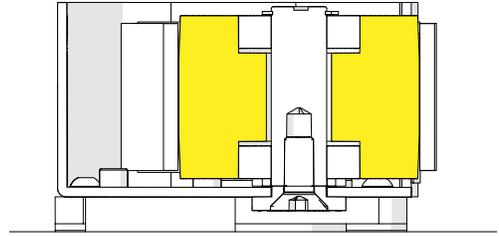


Figure 46: Self-Center Pulley

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

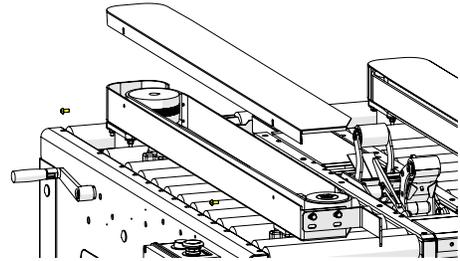
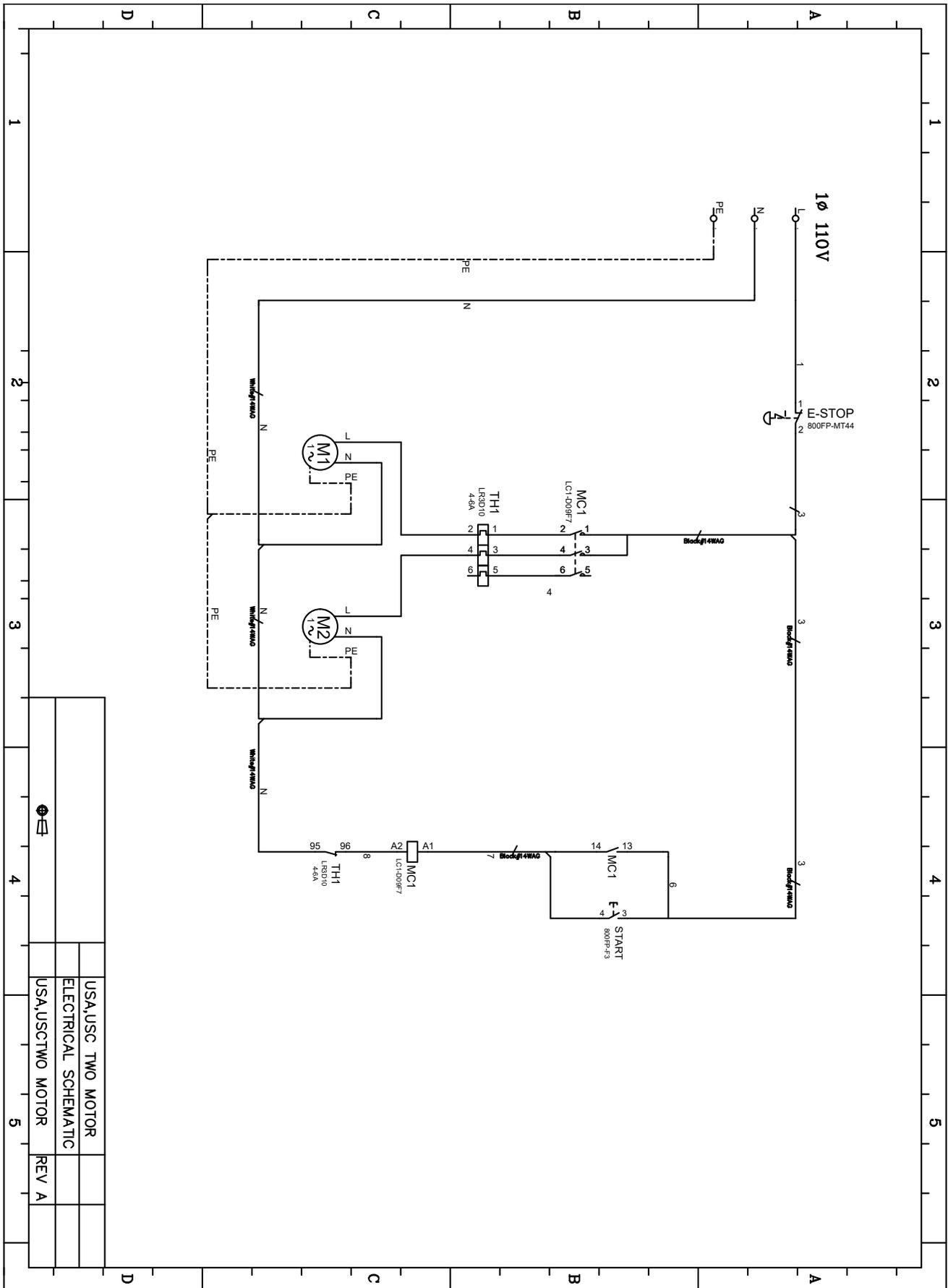


Figure 47: Drive Base Cover

APPENDIX A

Electrical Drawing



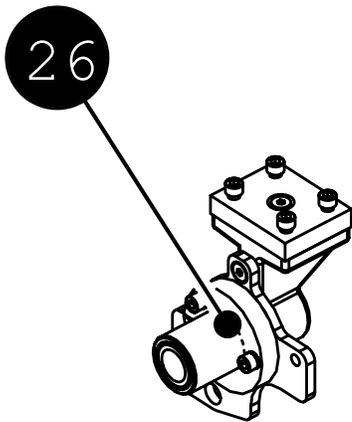
	USA,USC TWO MOTOR	
	ELECTRICAL SCHEMATIC	
	USA,USCTWO MOTOR	REV A

APPENDIX B

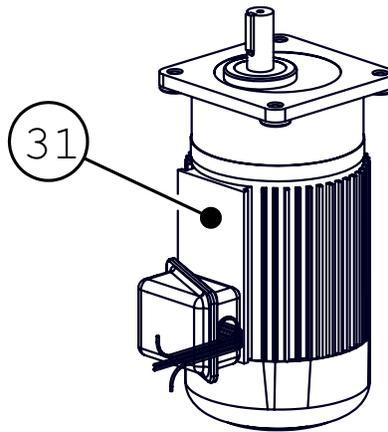
Parts Listing

USA 20-BFF	44
Ski Assembly	45
Left Drive Assembly	46
Right Drive Assembly	47
Rollers	48
Base Assembly	49
Leg Assembly	50
Centering Assembly	51
Machine Frame	52
Electrical Assembly	53

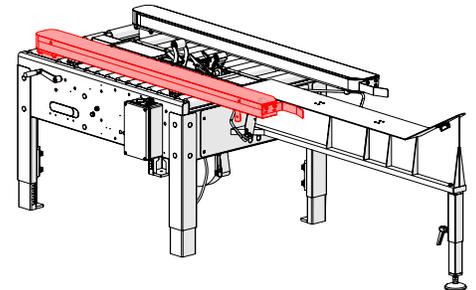
Items with black balloon call outs are assemblies (made of more than one individual part).



Items with white balloon call outs are single parts.



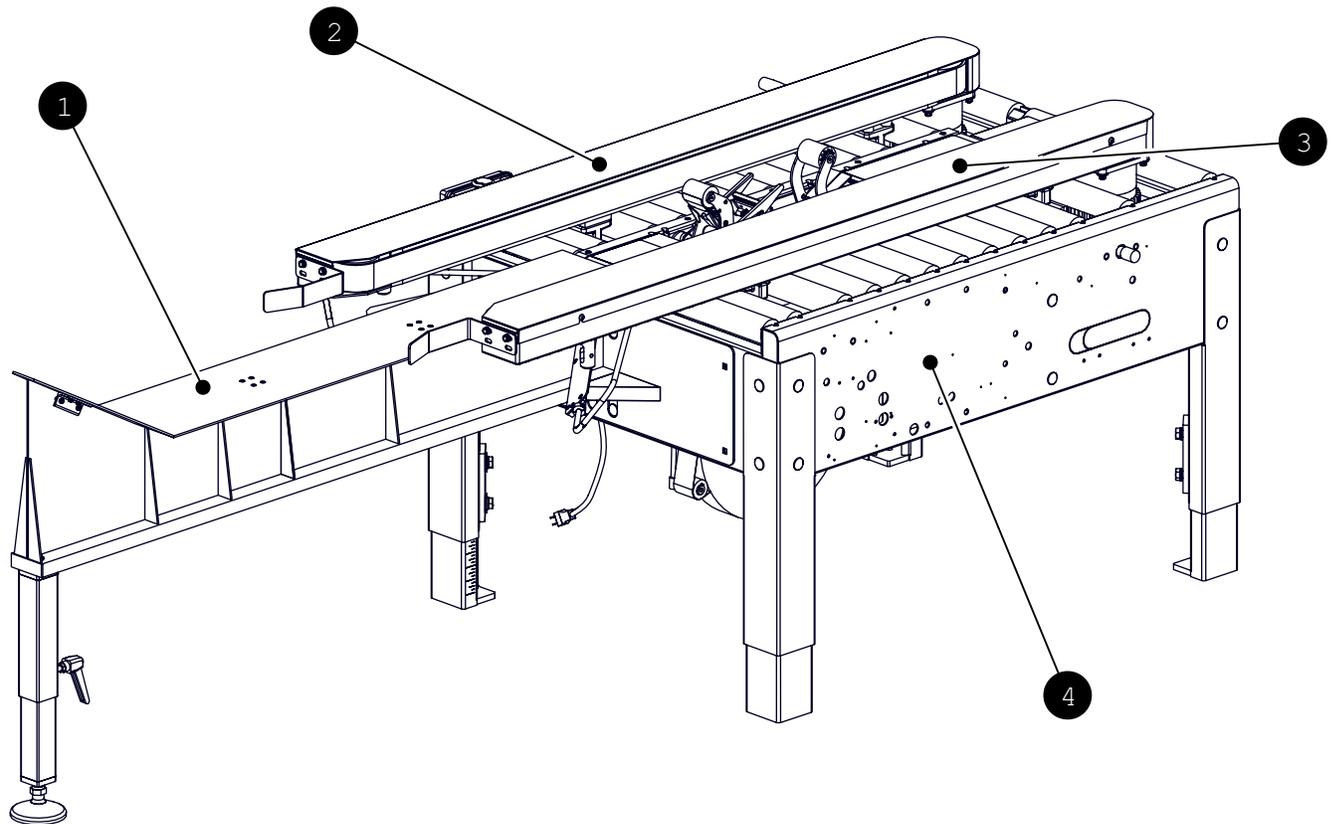
The top right of each page with a parts breakdown will show a red highlighted section of the machine that is being broken out into more detail.



Not all assemblies are sold as assemblies please consult IPG Machine Support for details.

APPENDIX B

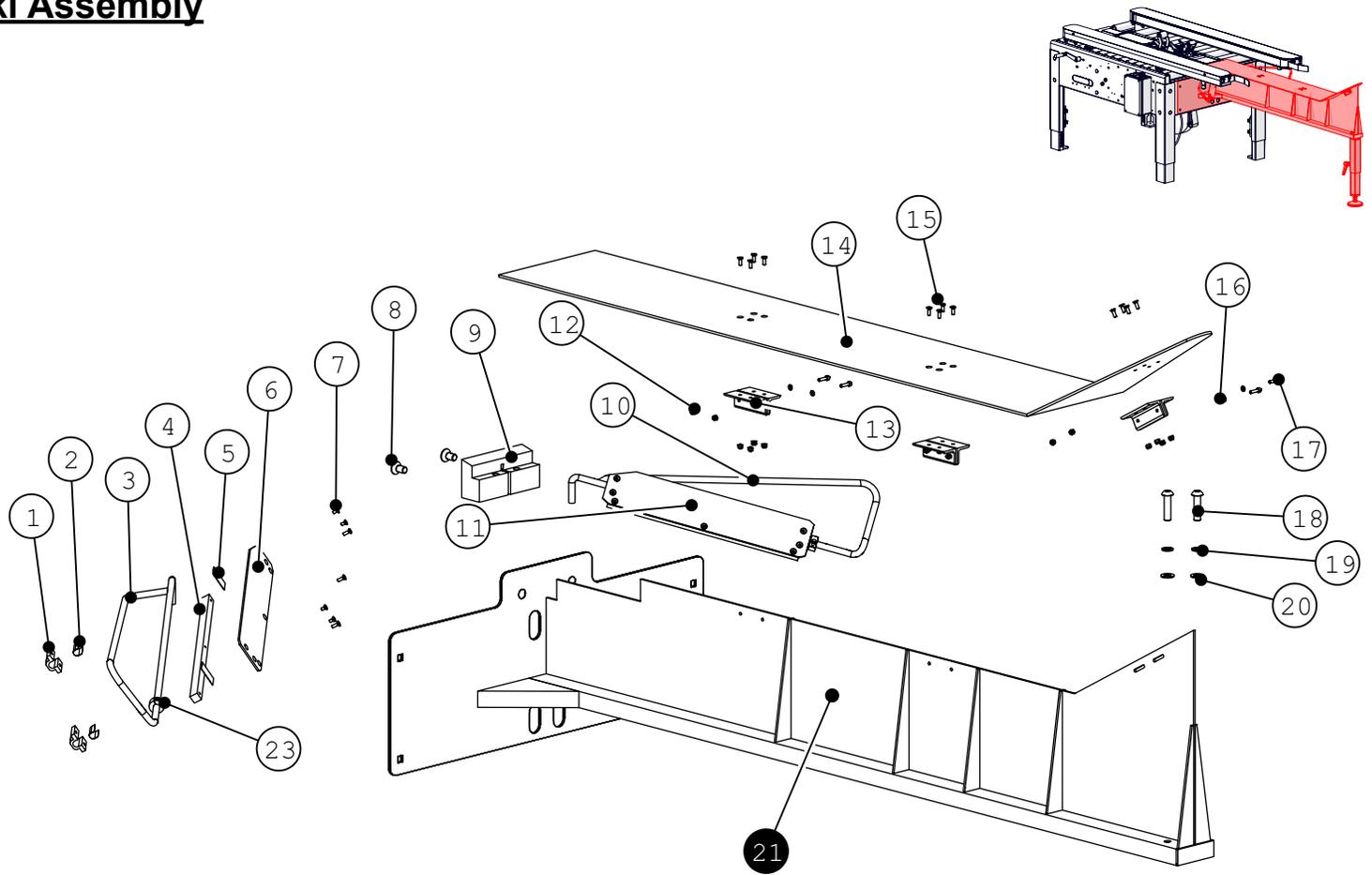
USA 20-BFF



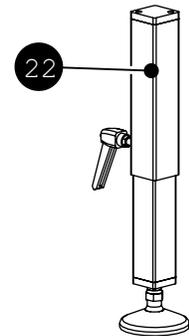
ITEM	PART NUMBER	DESCRIPTION	QTY
1	USM5063	TRAIL FOR BFF STANDARD METRIC	1
2	USM5065	DRIVE BASE 50 mm BFF L.H.	1
3	USM5064	DRIVE BASE 50 mm BFF R.H.	1
4	USM6115	BASE ASSEMBLY USA 2024	1

APPENDIX B

Ski Assembly

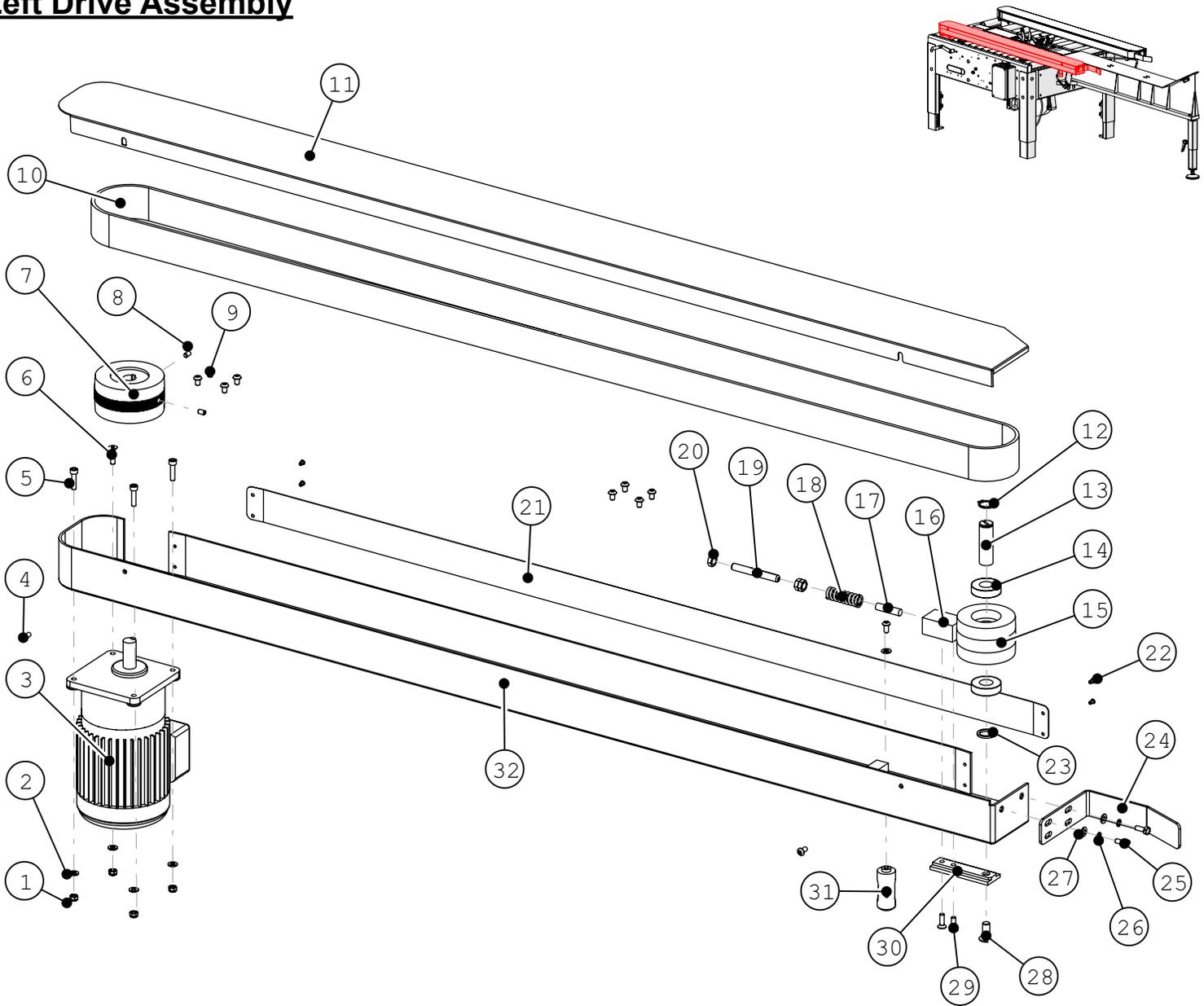


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UPM4550	FOR BOTTOM FLAP DEFLCT	4
2	UPM1647	UHMW 0.010 X 13/16" X 1-1/8"	2
3	UPM2344	LOWER PLOW ROD FOR BFF LEFT SIDE	1
4	UPM2513	BALANCE BAR BOTTOM FLAP DEFLC	2
5	UPM1647	UHMW 0.010 X 13/16" X 1-5/16"	2
6	UPM4553	BOTTOM FLAP DEFLC PLATE LEFT SIDE	1
7	UF3274	FHCS M4-0.7 x 8mm	8
8	UF6397	FHCS M10-1.5 x 20mm	2
9	UPM4551	BOTTOM PLOW BLOCK	1
10	UPM2343	LOWER PLOW ROD FOR BFF RIGHT SIDE	1
11	UPM4554	BOTTOM FLAP DEFLECTOR PLATE R.H.	1
12	UF6376	NYLON LOCKNUT M4	18
13	UPM1890	SKI ATTCH.BRACKET BFF	6
14	UPM4552	BOTTOM FLAP FOLDER SKI	1
15	UF3714	FHCS M4-0.7 x 12mm	18
16	UF3710	FW M4	6
17	UF3682	SHCS M4-0.7 x 16mm	6
18	UF6384	BHCS M10 x 40mm	2
19	UF6371	LW M10	2
20	UF3680	FW M10	2
21	UPM2345	BFF SKI SUPPORT, WELDMENT	1
22	UAM0337	SUPPORT LEG BFF METRIC	1
23	UPM2286	SHAFT COLLAR DOUBLE SPLIT 3/8"	2



APPENDIX B

Left Drive Assembly

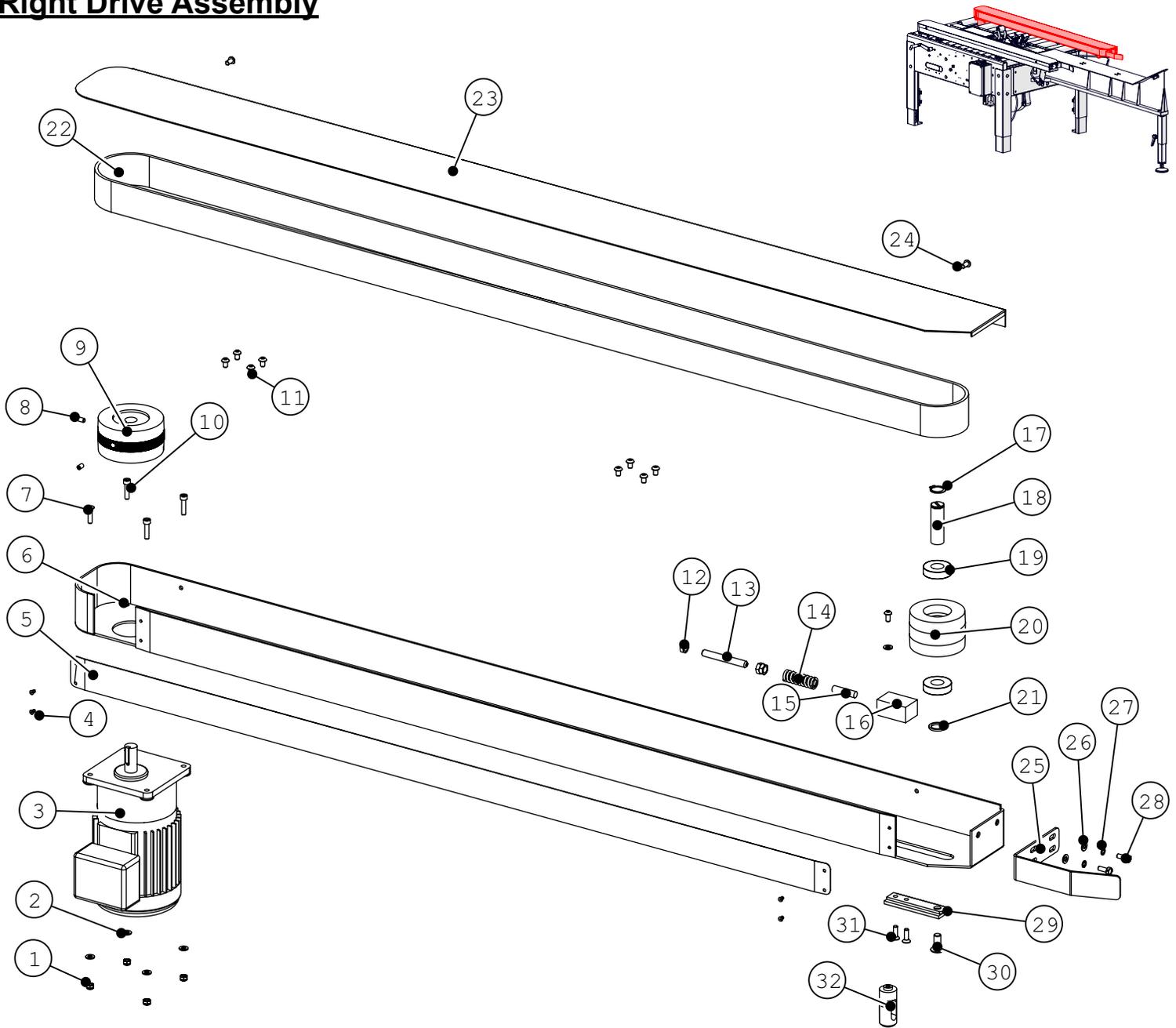


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UF5900	M6-1.0 LOCK-NUT	4
2	UF1828	FW M6	4
3	UPM7116CD	MOTOR 1/3 21.4 : 1	1
4	UF1216	BHCS M6-1 x 12mm	3
5	UF0840	SHCS M6-1 X 25mm	3
6	UF1194	FHCS M6 - 1 x 25 mm	1
7	UPM0129EV	DRIVE PULLEY 50mm	1
8	UF3683	SSS M6 x 10mm	2
9	UF1230	BHCS 1/4-20 X 3/8	8
10	UPM4560	BELT ENDLESS 50 x 3073 BFF	1
11	UPM4549	DRIVE BASE COVER BFF L.H.	1
12	UF2220	EXT RET'G RING 3/4" SHAFT	1
13	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
14	UPM0324	BEARING, PULLEY	2
15	UPM0259	IDLER PULLEY	1
16	UPM0101EV	TENSIONNER SPRING HOLDER	1
17	UPM1237	SS SPRING LOCATOR PIN	1

ITEM	PART NUMBER	DESCRIPTION	QTY
18	UPM0038	DIE SPRING	1
19	UF1400	SSS HK 3/8-16 X 3'	1
20	UF1610	HNJ 3/8-16	3
21	UPM0029	UHMW, 2" W X .03" THK	1
22	UF2080	POP RIVET S-44	4
23	UPM0109	IDLER PULLEY SPACER	1
24	UPM0647	CARTON RETAINER	1
25	UF0454	HHCS M6-1.0 X 16mm	2
26	UF6363	LW M6	2
27	UF1828	FW M6	2
28	UF1191	FHCS M10-1.5 x 25mm	1
29	UF5402	FHCS M6-1 x 20mm	2
30	UPM1879EV	TENSIONNER SLIDE	1
31	UPM7743	BOTTOM PLOW ROD PIVOT BFF	1
32	UPM4546	DRIVE SECTION 50 mm BFF L.H.	1

APPENDIX B

Right Drive Assembly

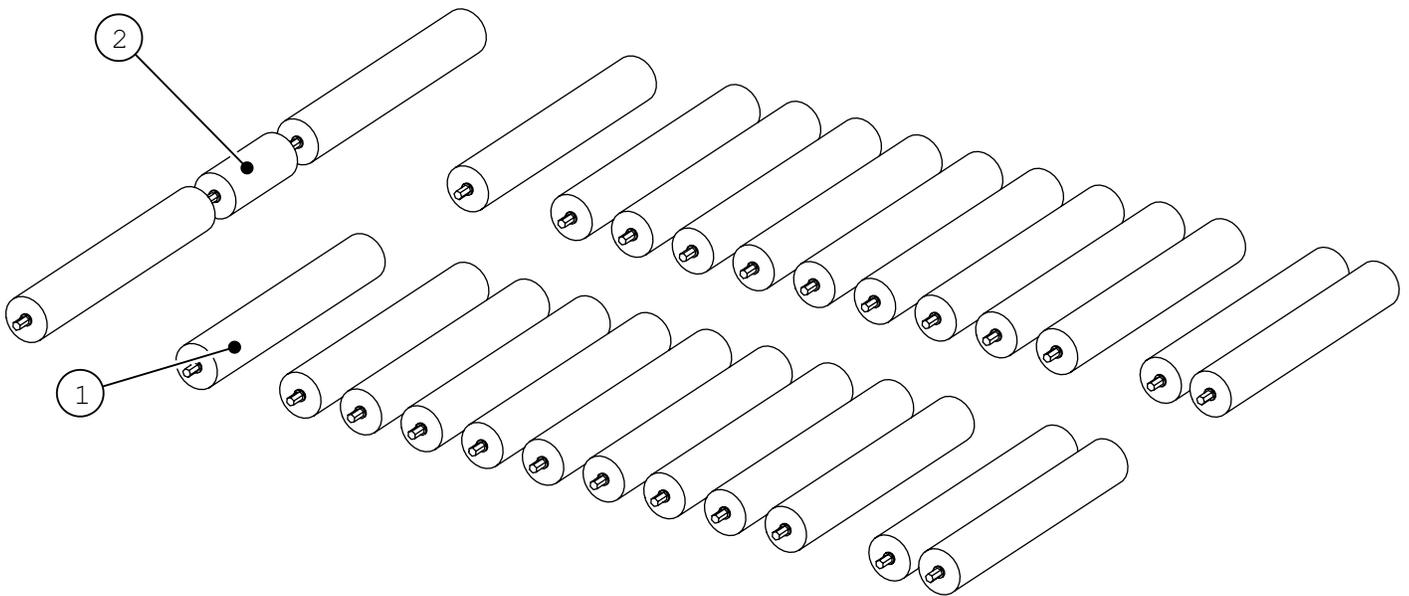
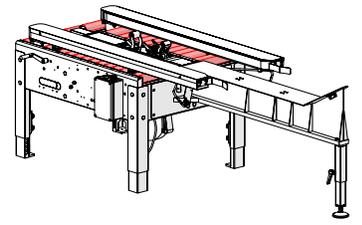


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UF5900	M6-1.0 LOCK NUT	4
2	UF1828	FW M6	4
3	UPM7116CD	MOTOR 1/3 21.4 : 1	1
4	UF2080	POP RIVET S-44	4
5	UPM0029	STRIP, UHMW, 2" W X .03"	1
6	UPM4547	DRIVE SECTION 50 mm BFF R.H.	1
7	UF1194	FHCS M6 - 1 x 25mm	1
8	UF3683	SSS M6 x 10	2
9	UPM0129EV	DRIVE PULLEY 50mm	1
10	UF0840	SHCS M6-1 X 25mm	3
11	UF1230	BHCS 1/4-20 X 3/8	8
12	UF1610	HNJ 3/8-16	3
13	UF1400	SSS HK 3/8-16 X 3'	1
14	UPM0038	DIE SPRING	1
15	UPM1237	SS SPRING LOCATOR PIN	1
16	UPM0101EV	TENSIONNER SPRING HOLDER	1
17	UF2220	EXT RET'G RING 3/4" SHAFT	1

ITEM	PART NUMBER	DESCRIPTION	QTY
18	UPM1233EV	IDLER PULLEY SHAFT 50mm	1
19	UPM0324	BEARING, PULLEY	2
20	UPM0259	IDLER PULLEY	1
21	UPM0109	IDLER PULLEY SPACER	1
22	UPM4560	BELT ENDLESS 50 x 3073 BFF	1
23	UPM4548	DRIVE BASE COVER	1
24	UF3278	BHCS M6-1 x 12mm	3
25	UPM0647	CARTON RETAINER	1
26	UF1828	FW M6	3
27	UF6363	LW M6	2
28	UF0454	HHCS M6-1.0 X 16mm	2
29	UPM1879EV	TENSIONNER SLIDE	1
30	UF1191	FHCS M10-1.5 x 25mm	1
31	UF5402	FHCS M6-1 x 20mm	2
32	UPM7743	BOTTOM PLOW ROD PIVOT BFF	1

APPENDIX B

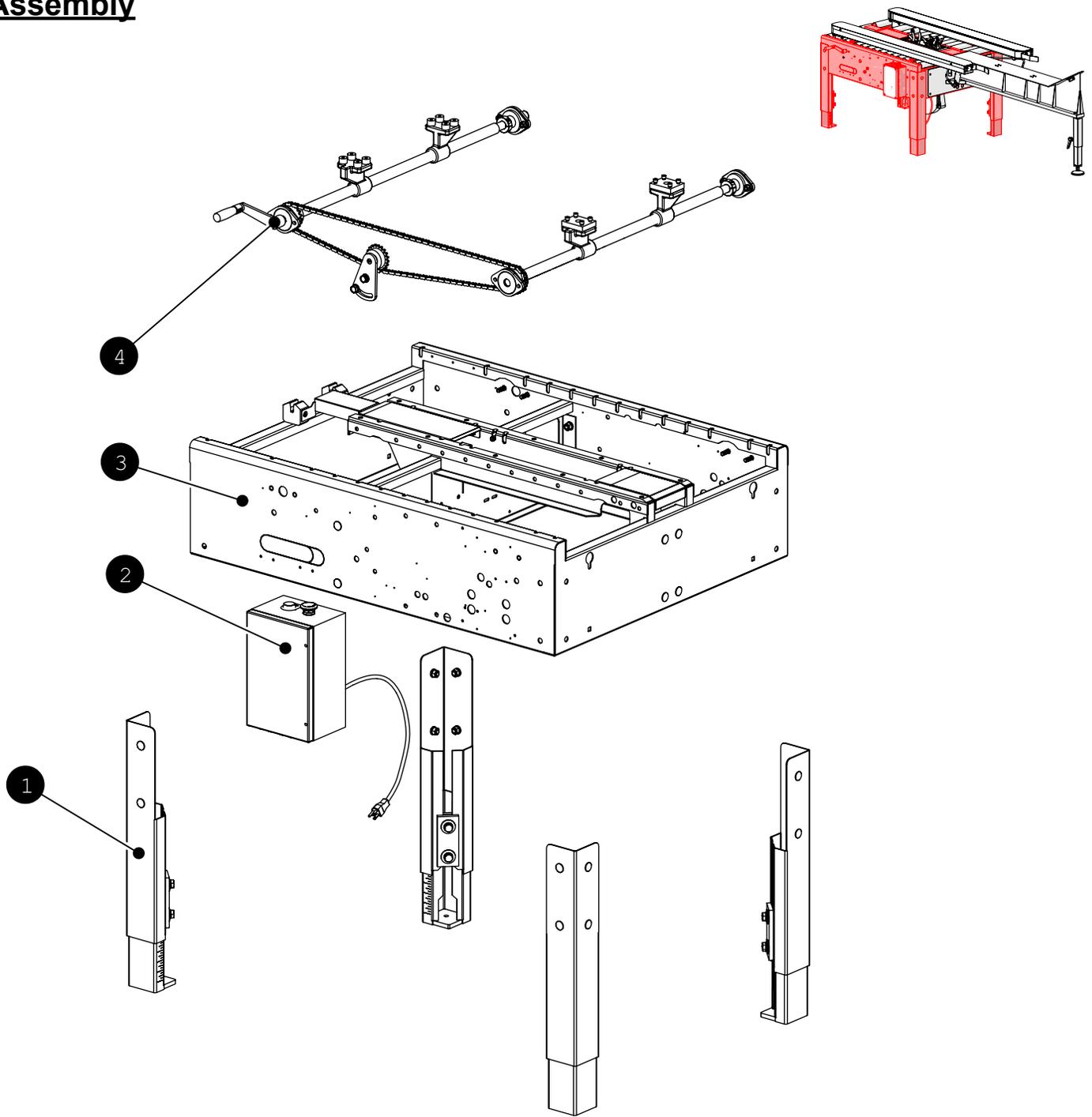
Rollers



ITEM	PART NUMBER	DESCRIPTION	QTY
1	UPM3226	PVC ROL CHARCOAL DIA 1.9 X 12.00	26
2	UPM3227	PVC ROL CHARCOAL DIA 1.9 X 4.50	1

APPENDIX B

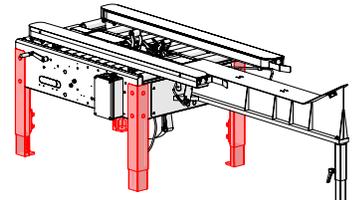
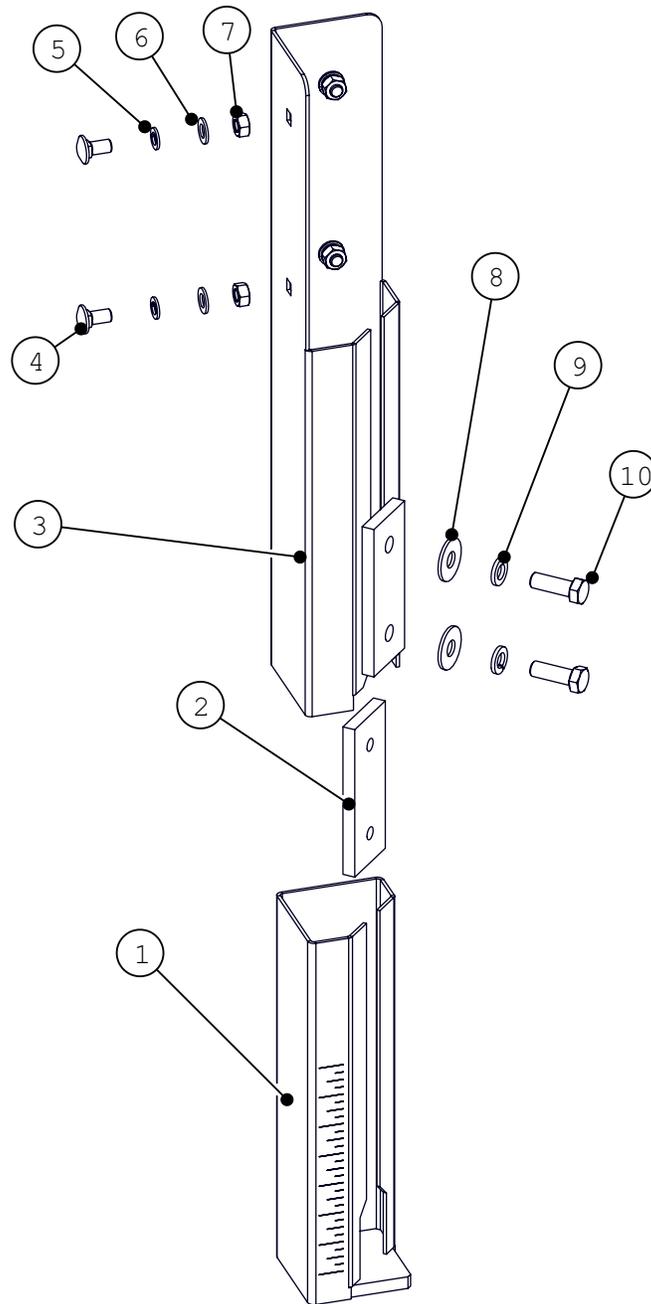
Base Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	UAM0275	LEG ASSEMBLY METRIC	4
2	UAM0666	ELECTRICAL BOX ASSEMBLY	1
3	UAM0328	BASE SUB-ASS'Y	1
4	USM6111	DRIVE CENTRING ASS'Y	1

APPENDIX B

Leg Assembly

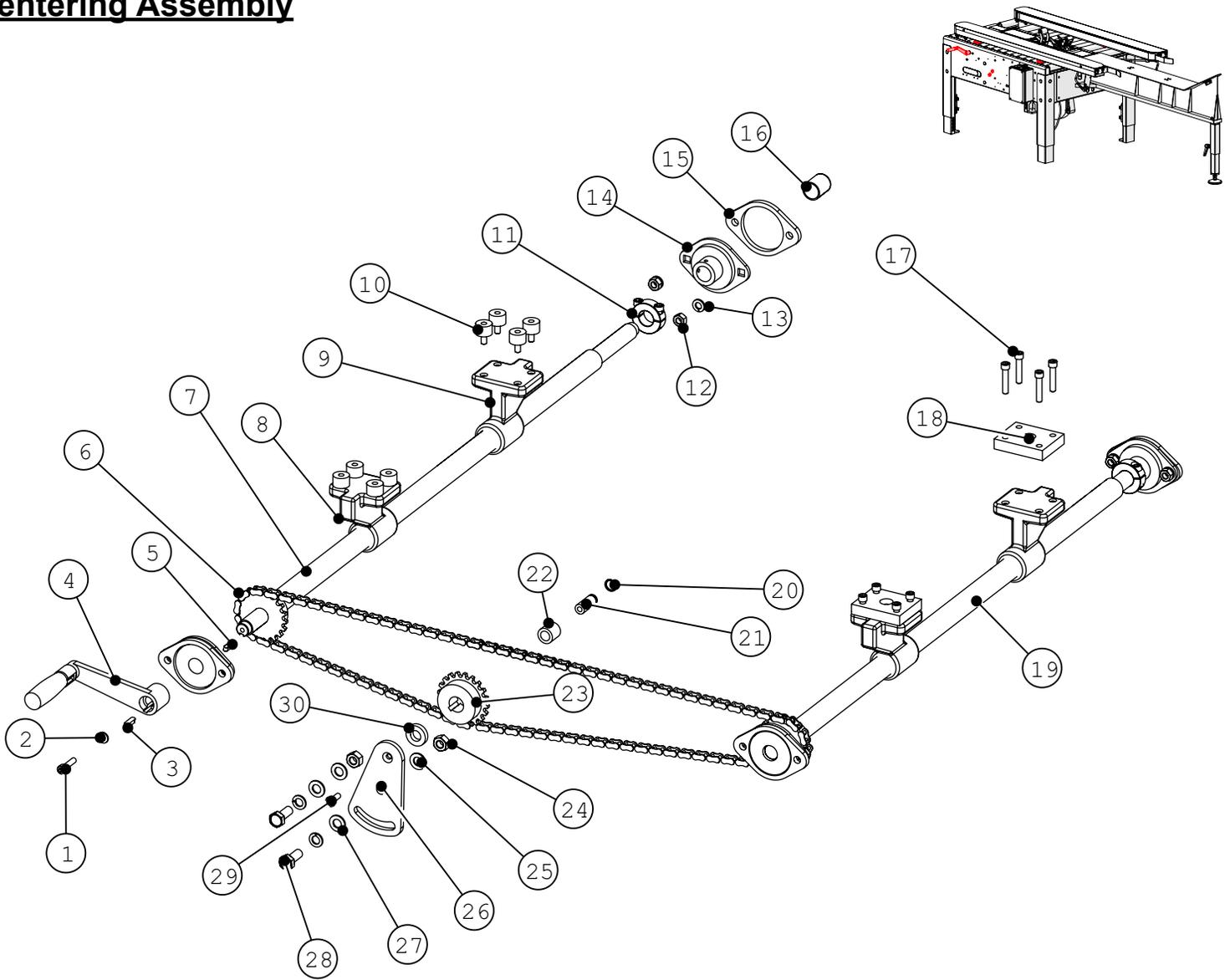


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UMP7641	M1273 item 1	1
2	UPM7642	M1274	1
3	UPM7640	M1272 item 1	1
4	UF4229	M10-1.5 x 20-CARRIAGE BOLT	4
5	UF6371	M10 LW	4
6	UF3680	M10 FW	4

ITEM	PART NUMBER	DESCRIPTION	QTY
7	UF6314	M10-1.5 HNR	4
8	UF4231	M12 FW	2
9	UF4230	M12 LW	2
10	UF6393	M12-1.75 x 35 HHCS	2

APPENDIX B

Centering Assembly

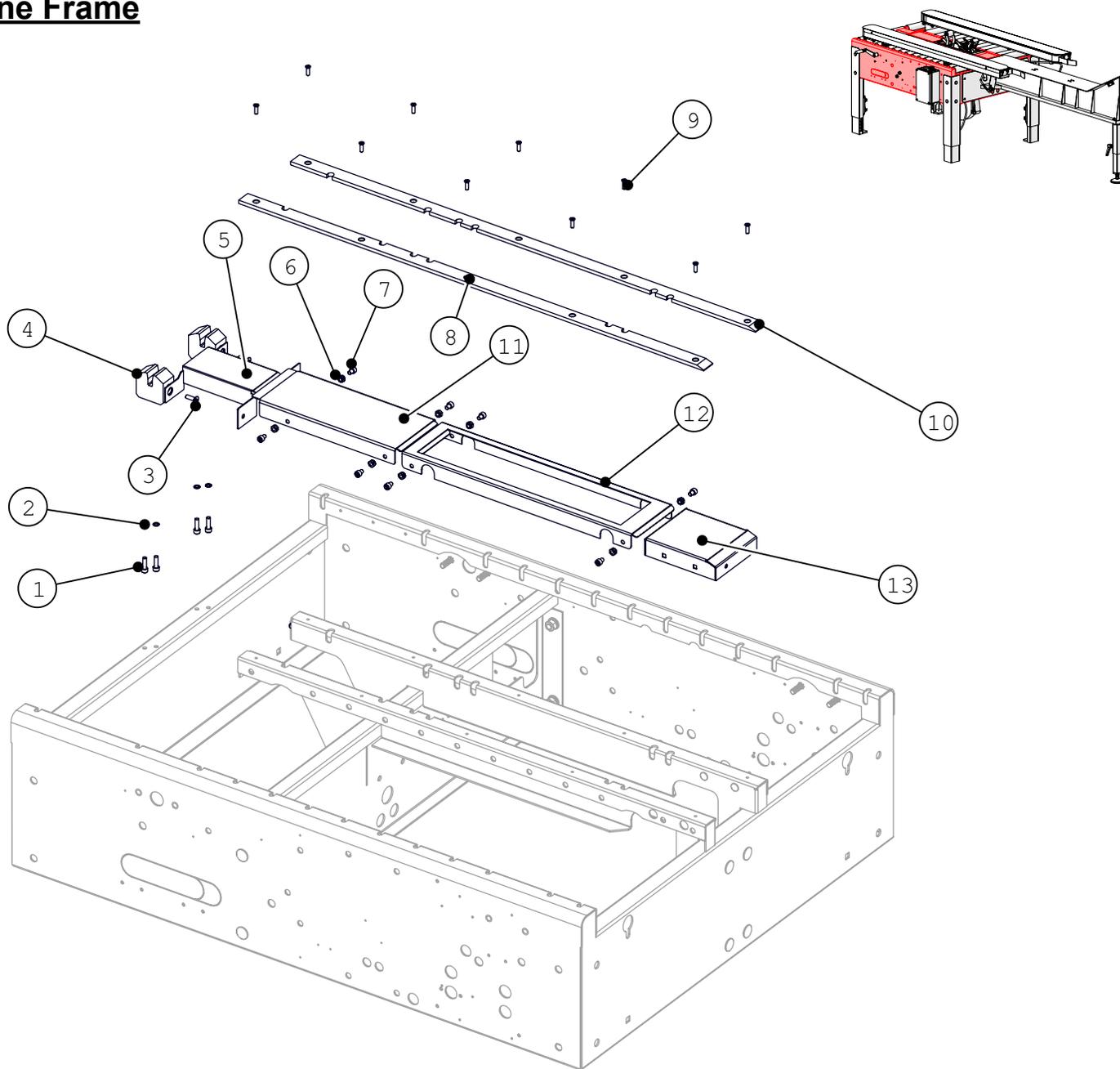


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UF0840	M6-1 x 25 SHCS	1
2	UF1828	M6 FW	1
3	UF2210EV	SQUARE KEY ROUND ENDS 5x5x20	1
4	UPE0001EV	CRANK HANDLE, FOLDABLE	1
5	UF2210	SQUARE KEY	1
6	UPM0618	CHAIN #35-165	1
7	UPM0566EV	ACME SHAFT FOR HANDLE	1
8	UPM0575EV	CASTING LH	2
9	UPM0574EV	CASTING RH	2
10	UPM0576	BUMPER	8
11	UPM7583	SHAFT COLLAR	2
12	UF0866	M8-1.25 HNR	8
13	UF0867	M8 LW	8
14	UPM0523EV	FLANGE BEARING	4
15	UPM2198	BEARING SPACER	4
16	UPM2207	CAP VINYL BLACK	1

ITEM	PART NUMBER	DESCRIPTION	QTY
17	UF0640	1.4-20_1.25_SHCS	8
18	UPM3242	DRIVE SUPPORT SPACER	2
19	UPM0573EV	ACME SHAFT	1
20	UF2170	1/2" RETAINING RING	1
21	UPM0640EV	TENSIONNER PIN	1
22	UPM0639EV	BRASS BUSHING	1
23	UPM0620	SPROCKET	3
24	UF6314	M10-1.5 HNR	2
25	UF3680	M10 FW	4
26	UPM0631EV	M1286	1
27	UF6371	M10 LW	2
28	UF6382	M10-1.5 x 25 HHCS	2
29	UF5402	M6 - 1 x 20 FHCS	1
30	UPM0641	CHAIN TENSIONNER SPACER	1

APPENDIX B

Machine Frame

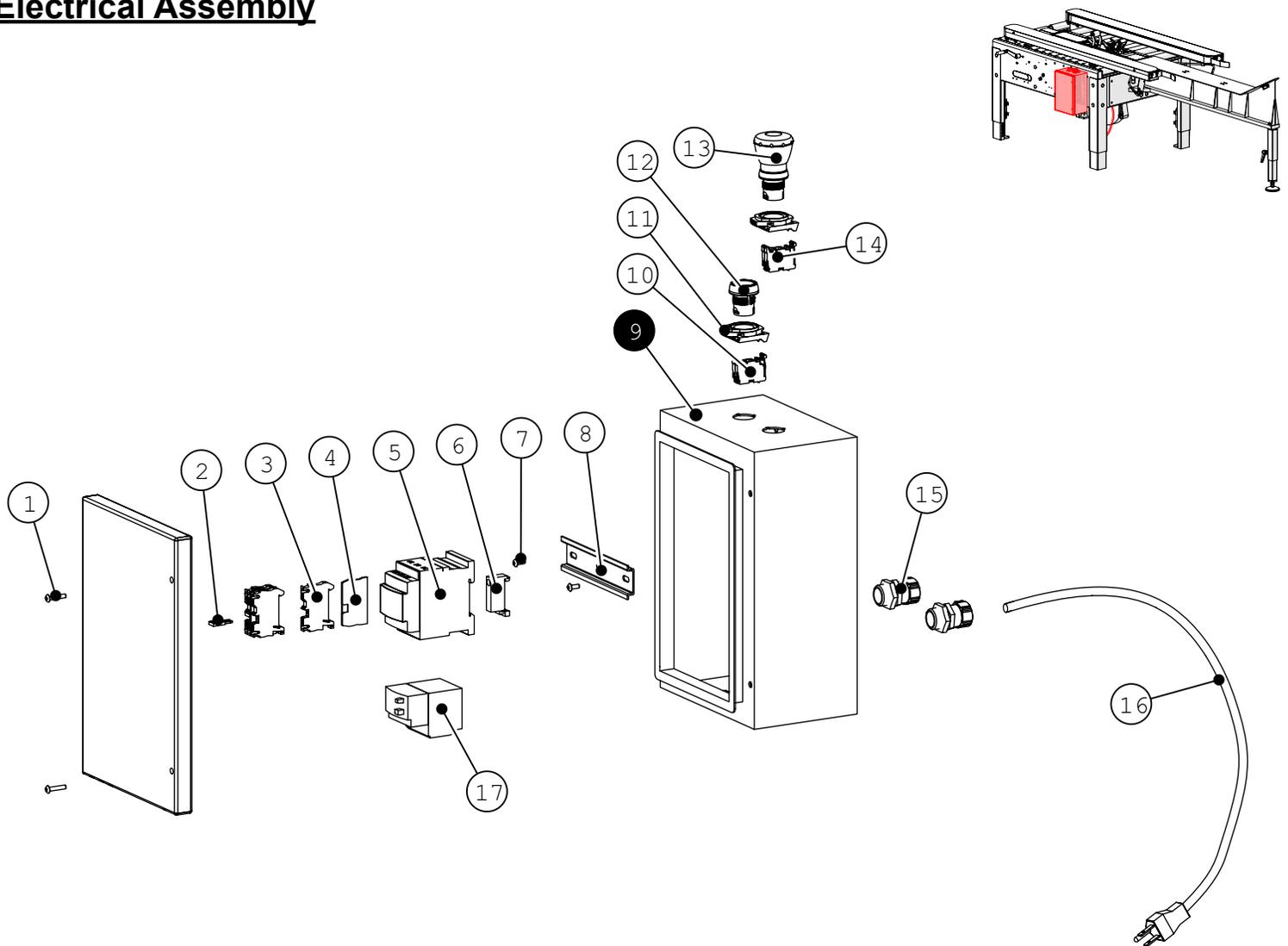


ITEM	PART NUMBER	DESCRIPTION	QTY
1	UF3179	M6-1 x 20 SHCS	4
2	UF6411	M6 LW	4
3	UPM3234EV	OUTLET ROLLER BLOCK	2
4	UPM3234EV	OUTLET ROLLER BLOCK	2
5	UPM3288EV	OUTLET COVER	1
6	UF3391	M6-1.0 LOCK-NUT	10
7	UF3170	M6-1 x 8 SHCS	8

ITEM	PART NUMBER	DESCRIPTION	QTY
8	UPM0609EV	SLIDING PAD L.H.	1
9	UF4114	M5 x 16 SELF TAPPING	10
10	UPM0606EV	SLIDING PAD R.H.	1
11	UPM4193	REAR GAP FILLER	1
12	UPM3815	GAP FILL PLATE	1
13	UPM3229	INLET COVER	1

APPENDIX B

Electrical Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	UF4323	BHCS M4 - 0.7 x 20mm	2
2	UPM6197	2 PIN BRIDGE	2
3	UPM6193	TERMINAL BLOCK, 1	4
4	UPM6196	END COVER	2
5	UPM2208EV	MOTOR STARTER TELEMEC 110VAC	1
6	UPM7440EV	DIN RAIL ANCHOR	2
7	UF6365	BHCS M4 x 0.7 x 10mm	2
8	UPM0407EV	DIN RAIL USA	1
9	UPM8083	ELECTRICAL BOX USA STEEL	1

ITEM	PART NUMBER	DESCRIPTION	QTY
10	UPM7631	NO CONTACT	1
11	UPM7630	LATCH	2
12	UPM4821	BUTTON GREEN	1
13	UPM4816	EMERGENCY STOP BUTTON	1
14	UPM4720	NC CONTACT	1
15	UPM0197EV	CORD GRIP	2
16	UPM0209	POWER CORD, 14/3	1
17	UPM4505	MOTOR O/L TELEMEC 7-10A	1

