

# **MODEL ATFUX22-3**

## **SEMI-AUTOMATIC UNIFORM CARTON SEALER**

Version 1.6

### **OPERATION AND PARTS MANUAL**

**READ ALL INSTRUCTIONS BEFORE OPERATING THIS MACHINE**

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## *We Value Our Customers*

*This is the BestPack® Packaging Systems equipment you ordered customized to meet your needs. This quality machine has been set up and tested successfully in the factory with brand name tapes to ensure your highest level of satisfaction.*

*If problems do occur when operating this equipment, please refer to the Troubleshooting section of this manual for help. If this does not resolve the problem and you need a service call or phone consultation, reference the Customer Service Section of this manual for contact information. Remember to lockout all energy sources (i.e. power down and shut off air supply) and release stored energy prior to servicing or moving the machine to prevent injury.*

### **Replacement Parts, Order Form, Warranty Guidelines, and Warranty Registration**

*Please take note of the following important items in this manual:*

- Recommended replacements parts suggested to keep on hand to minimize downtime
- Troubleshooting section listing the most common causes and simple solutions
- Customer Service Information provided for your support
- Parts Order Form for your convenience
- BestPack® 1-Year Warranty Program and Guidelines
- Warranty Registration Form to activate your warranty

*We ask that you fill out the Registration Form provided at the back of this manual and send it in to activate your warranty.*

**FUTURE COMMODITIES INTERNATIONAL, INC.  
BESTPACK® PACKAGING SYSTEMS  
10676 FULTON COURT  
RANCHO CUCAMONGA, CA 91730-4848**

## OWNER'S SAFETY RESPONSIBILITY

Owners and operators of the MSD22 carton sealer are responsible for maintaining an effective safety program. This program should be consistent with good management practices and meet all requirements of applicable laws, regulations, and ordinances. Employees must be aware of and trained to recognize the specific requirements, precautions, and hazards of the sealing machines.

## SAFETY AWARENESS

Careful machine operation is the key to safe job performance. Reasonable care and good judgment in machine operation contribute to operator safety and safety of others. Failure to follow simple safety rules and precautions may result in an accident. Always be aware of what is going on in the work area. Recognize hazardous situations before they become an accident.

## HAZARD COMMUNICATION STATEMENT AND PRECAUTIONS

Four indicator signal words appear throughout this manual to call your attention to special information, operating procedures, and safety precautions as described below.

- NOTE:** This indicator draws emphasis to special information about equipment operation and maintenance procedures.
- IMPORTANT:** This indicator specifies special instructions or procedures meant to prevent damage to the equipment, associated components, or products.
- ▲ CAUTION:** This indicator signals hazards or unsafe practices that could result in minor personal injury or property damage.
- ▲ WARNING:** To prevent accidental start-up and personal injury during routine maintenance or when troubleshooting problems, always turn off the power to the machine first. Then disconnect the machine's electrical and compressed air lines from the main supply, and release all stored energy before commencing work. If the power is not turned off, accidental startup could result in injury.
- ▲ DANGER:** This indicator signals hazards or unsafe practices that could result in severe personal injury or death, if the instructions are not followed.

## SAFETY PROCEDURES

1. Operators should read this manual prior to operating or making any adjustments on the machine.
2. Make sure machine power is turned off during the setup procedure while making adjustments to the machine. Be careful with the driving direction of the conveyer.
3. Machine should not be washed down or subjected to conditions causing moisture condensation on components and should be used in a dry, relatively clean environment at 40 to 105 degrees Fahrenheit with dry boxes.
4. To enhance safety, operators should be alert at all times while operating the machine. When packing products with toxic powders or chemicals, make sure packing area has good ventilation.
5. Remember to lockout all energy sources (i.e. power down and shut off air supply) and release stored energy prior to servicing or moving the machine to prevent injury.

## CAUTION LABELS

1. This label shows the entry point of the boxes. [Fig 1-1]
2. This label shows the direction of the crank handle. [Fig 1-2]
3. This label shows that that this area contains electrical components. Only authorized personnel are allowed to access these components. [Fig 1-3]
4. Warning label cautions to keep hands out of this area due to a moving part. [Fig 1-4]
5. Warning label cautions potential electrical shock. Unplug power before servicing the machine. [Fig 1-5]
6. Warning label cautions to keep hands out of this area because it contains a sharp knife. [Fig 1-6]

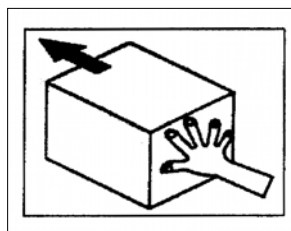


Fig 1-1

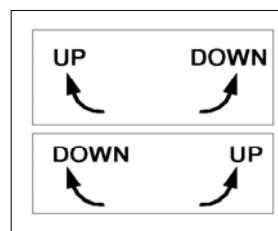


Fig 1-2

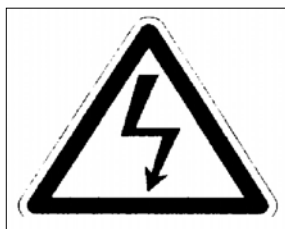


Fig 1-3



Fig 1-4



Fig 1-5



Fig 1-6

## EQUIPMENT SAFETY

1. Do not alter, deface, or remove factory installed information signs that are attached to the equipment. If an information sign is damaged, replace it as soon as possible.
2. Never climb or work on equipment while it is operating nor allow anyone else.
3. Inspect all equipment components before each operation shift for damaged parts or parts suspected of sustaining damage. Repair or replace any damaged or defective components before starting or operating the equipment.
4. Before starting or operating equipment, perform a walk-around inspection of the workplace and the equipment. Make sure that no workers, tools, parts, or foreign objects are in, on, under, or around the equipment.
5. Do not operate equipment if safety gates are not in place. Check safety gates and other safety devices for proper installation and safe working condition.
6. Before starting equipment make sure that all personnel or visitors know that the equipment is going to be started.
7. When starting equipment, follow the manufacturer's recommended starting sequence.
8. Do not allow anyone to start or operate any equipment unless they have been trained in safe operating procedures.
9. Never leave equipment controls unattended. Either have a qualified operator relieve you or turn equipment off if you must leave your workstation.
10. When starting up equipment and while equipment is operating, be alert for improper readings, visual defects, abnormal odors, or unusual noises. These can be an indication of an equipment problem or warning of a possible hazard. At the onset of any of these conditions, immediately shut down the machinery following proper shutdown procedures.
11. Do NOT inspect, maintain, adjust, repair, or move the equipment until LOCKOUT procedures are implemented by trained, authorized personnel in accordance with state and federal laws. Authorized persons must shut down the power supply, shut down all energy sources, block moving parts, and release all stored energy to prevent injury.
12. Perform all equipment inspection, maintenance, lubrication, and adjustment procedures with caution and comply with manufacturer's recommended procedures.

## **ELECTRICAL SAFETY**

1. Allow only qualified electricians or electronic technicians to work on electrical components or controls.
2. Always assume that an electrical circuit is “live” until proven otherwise by proper testing conducted by an authorized person.
3. Repair or replace frayed, cut, broken, or damaged electrical wires, cables, and connectors.
4. Check that electrical ground wires, motor plugs, and power cable connections are properly and securely connected before starting any equipment.
5. Know all locations of main electrical shut-off boxes in case of an emergency.

## MACHINE DESCRIPTION & FEATURES



The BestPack® ATFUX Series carton sealer is an operator free carton sealing machine, using pressure sensitive tape, designed to cater to heavy duty needs of packing houses using HSC cartons. Great for use in packaging oranges, potatoes, or apples.

All systems incorporate our exclusive pop out pressure sensitive “High Speed” tape heads with patented tab adjustment.

### Major Features:

- Self Centering Guide Rails
- Adjustable Compression Rollers
- Width/Height Adjustment on either side of machine
- Drive Belts are Equipped w/ a “V” Guide
- Tape Roll Lengths: 1000 yd., 1500 yd., 2000 yd.
- Heavy Duty Frame
- UL Approved Electrical Parts
- Capable of Interchanging 2” or 3” Tape Heads

### Sealer includes four stations:

- An indexer station
- A positive outer sleeve lifter station with shaker, to assure proper squaring of the top flaps before entering the flap folding station
- A flap fold station closes the top flaps
- A final station seals the top and bottom flaps leaving the top and bottom flaps sealed but not tabbed together



**major features**

---

- Dual Top and Bottom Belts
  - o Equipped with "V" Guide for positive tracking and longer belt life
  - o Idler Rollers behind belts reduce friction
  - o Changed quickly and easily, reducing downtime
- Built in Indexer
  - o Properly spaces carton feeding into sealers
- Adjustable Bed Height 24.5" to 31.25"
- Width/Height Adjustment either side of machine
- Top Compression Unit
  - o Compresses top major flaps together
  - o Aligns each box for precise tape positioning
  - o Ensures a tight, secure seal
- Manual Adjusting Dual Side Guides
- Removable/Interchangeable Top/BottomTape Heads
  - o 2" or 3" tape heads are possible
  - o Lifts out easily/threads easily; No tools required
  - o Minimizes downtime due to faster roll changes
  - o Tape roll lengths: 1000 yd., 1500 yd., 2000 yd.
- Tape Tab Length Adjustment
  - o Adjusts from 2 3/8" to 3"
  - o No additional parts required
  - o Changes can be made in minutes
- Tape Tension Adjustment Knob
  - o Prevents tape overrun
  - o Provides a more consistent tape application
- Tension Optimizing Armo
  - o Smooth, consistent unwind
  - o Minimizes unwind noise
  - o Reduces the amount of tension adjustment required for optimum performance
  - o Capable of running all adhesives
  - o Reduces possibility of tape stretching and breaking
- Brush Wipe Down System
  - o Positively wipes tape overlap to bottom side of box and is removable
- Designed for Uniform Applications
- Heavy Duty Frame; UL Approved Electrical Parts
- Electrical ON/OFF box can be mounted on either side of machine

**standard features**

- Exclusive Pop-out pressure sensitive "high speed" tape head with patented tab adjustment and noise reduction arm
- Tool Kit
- Easy to thread tape heads
- Operation Manual

**optional features**

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- Stainless Steel

**machine specifications**

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- Power Requirements: 220 Volts 60 Hz, 3 Phase, 20 Amps, 10:1 Ratio, 1/5 hp
- Air Requirements: 90PSI, 8CFM
- Speed: Up to 38 cartons/minute
- Tape Head: Standard: 2", Available: 3"
- Shipping Weight: 1,098

**carton specifications**

Style: 1 Piece, Regular Slotted Container (RSC)

Construction: 125 to 300 Single or Double Wall

Content Weight: 4 lb. to 95 lb.

**operating conditions**

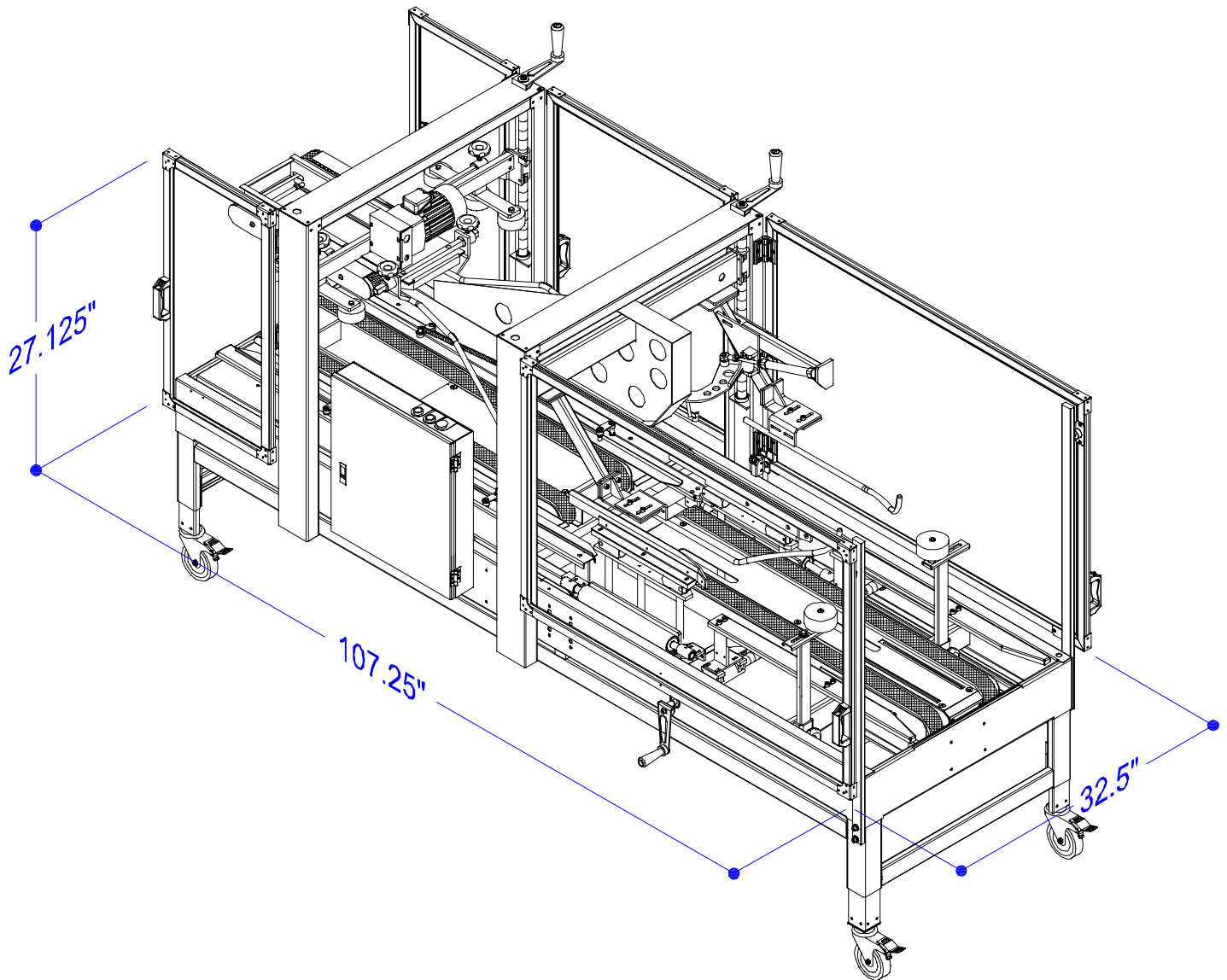
- Use in a dry, relatively clean environment at 40° to 105° Fahrenheit (5 to 40 Celsius) with dry boxes.
- Machine should not be washed down or subjected to conditions causing moisture condensation on components and should be used in a dry, relatively clean environment at 40 to 105 degrees Fahrenheit with dry boxes.

**series comparison table**

| Model                    | Machine Size            | Carton Range                                     | Cartons/Min. | Shipping Weight (lbs.) |
|--------------------------|-------------------------|--|--------------|------------------------|
| ATFXU22-2<br>2" TapeHead | 107.25" x 32.5" x 55.0" | (16.0"-20.0") x (10.5" - 15.3") x (5.5" - 14.5") | Up to 38     | 1,098                  |
| ATFXU22-3<br>3" TapeHead | 107.25" x 32.5" x 55.0" | (16.0"-20.0") x (10.5" - 15.3") x (5.5" - 14.5") | Up to 38     | 1,098                  |

\* All specifications capable of customization

## MACHINE DIMENSIONS



## MAJOR COMPONENTS

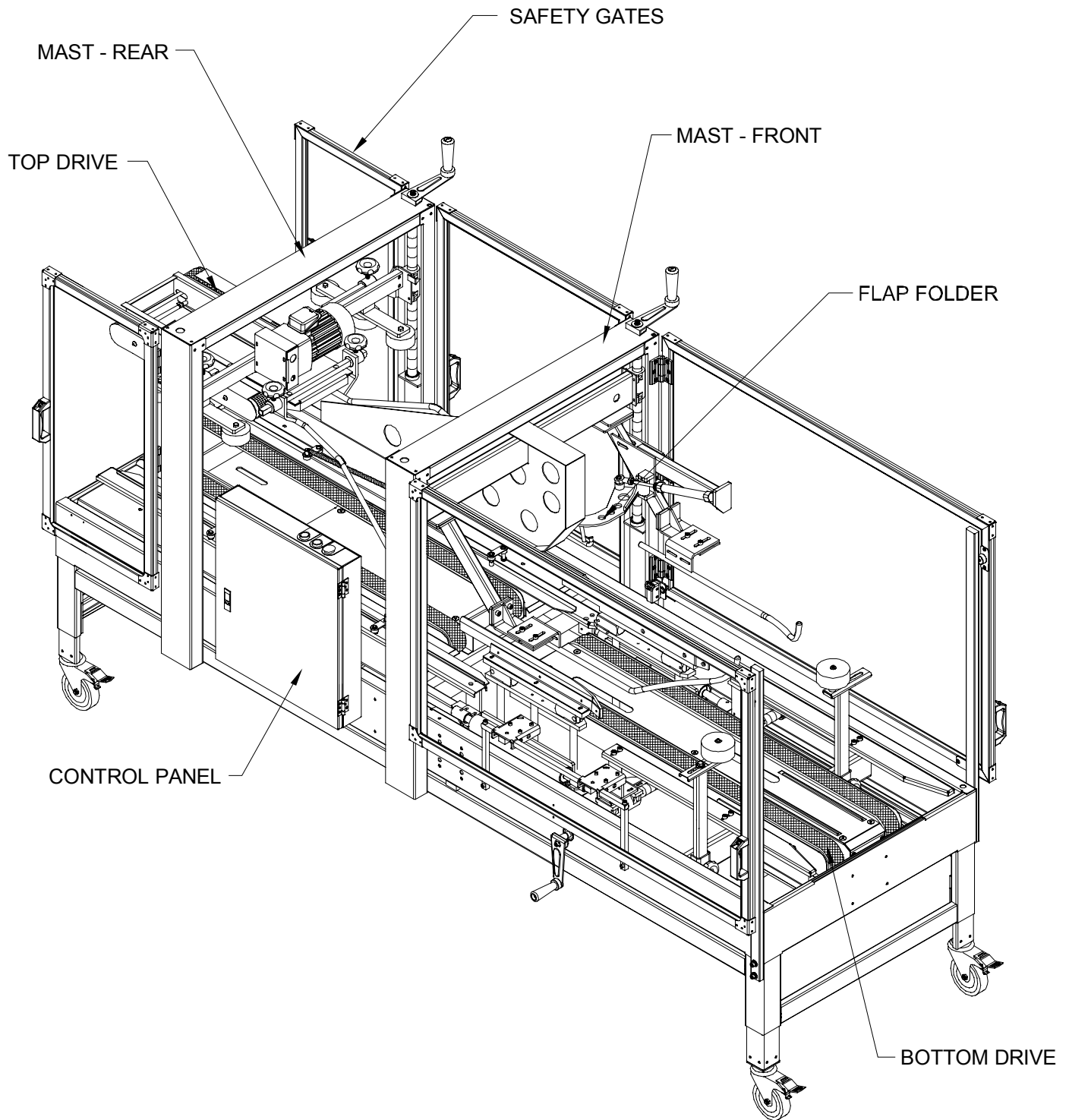
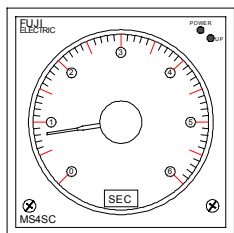
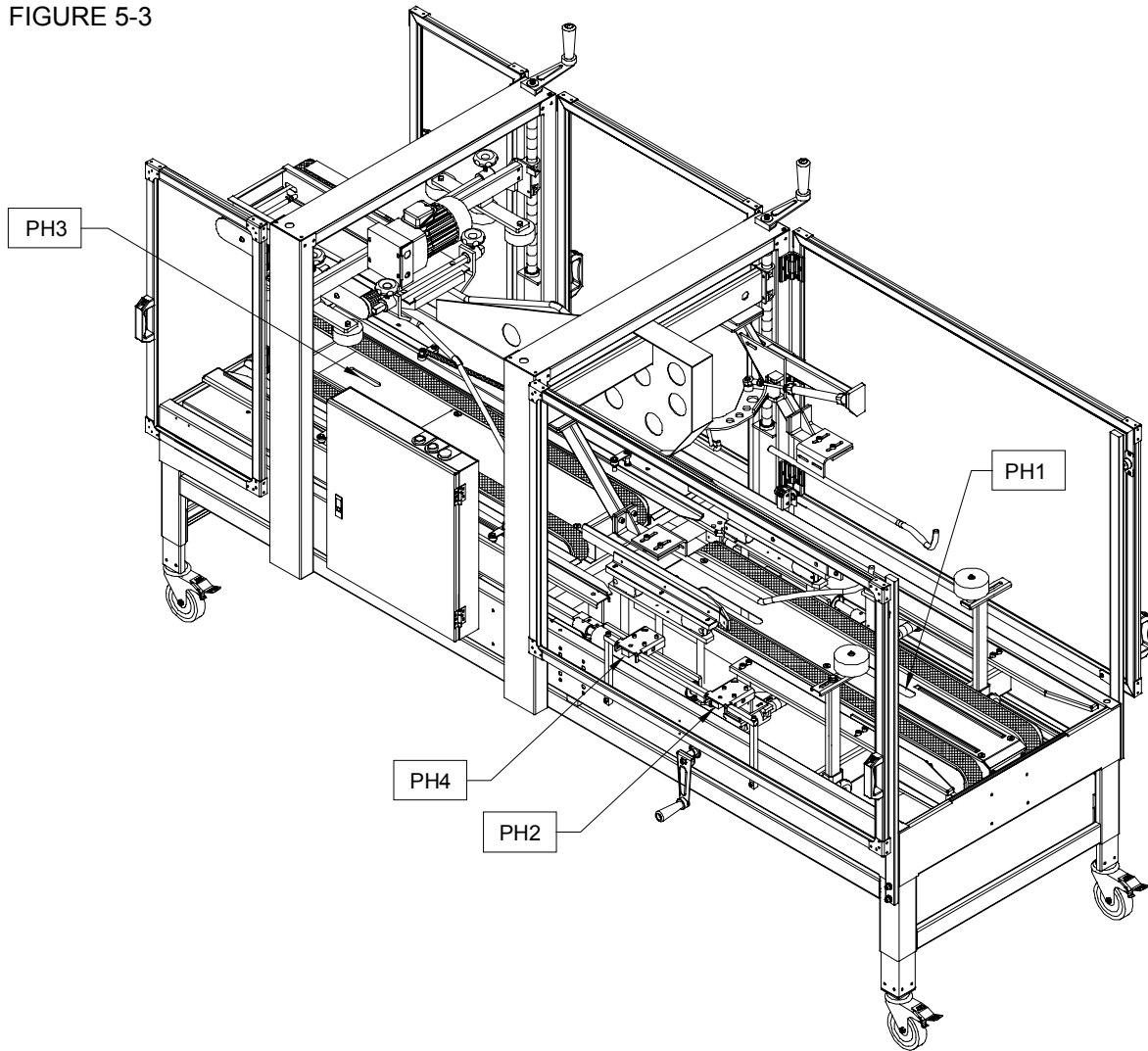
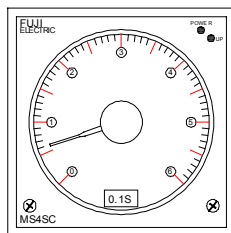


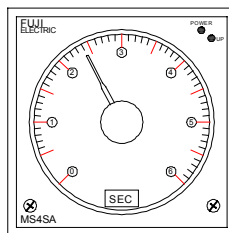
FIGURE 5-3



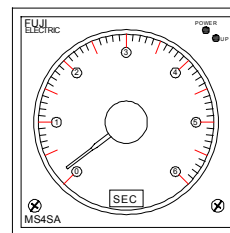
TIMER 2



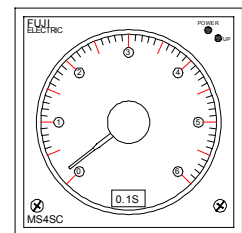
TIMER 3



TIMER 4



TIMER 5



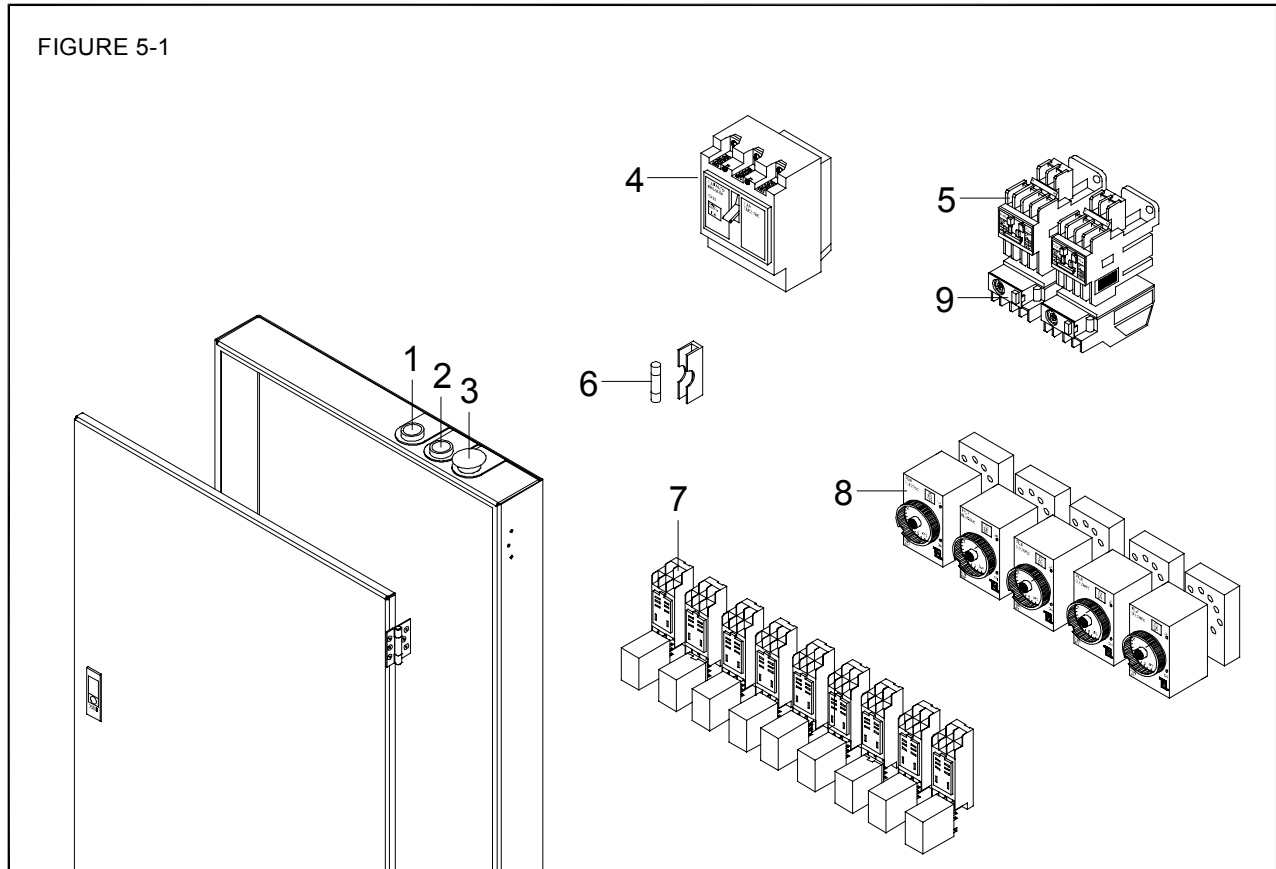
TIMER 6

## TIMER SETTINGS GUIDE

| COMPONENTS | DEVICE  | RANGE/<br>SETTINGS | FUNCTIONS                           | REMARKS   |
|------------|---------|--------------------|-------------------------------------|---|
| PHOTO EYE  | PH1,PH2 | POSITION           | CONTROLS BOX STOPPER AND INDEXER    | POSITION <b>PH1</b> IN COMBINATION WITH <b>PH2</b> . SO THAT IF BOTH ARE TRIGGERED, BOX STOPPER AND INDEXER WILL GO UP AT SAME TIME   |
|            |         |                    |                                     |   |
|            | PH2     |                    | MINOR FLAP ARM                      | POSITION <b>PH2</b> TO SENSE THE TRAILING BOX EDGE AND TRIGGER THE REAR MINOR FLAP KICKER   |
|            |         |                    |                                     |   |
| PHOTO EYE  | PH3     | POSITION           | CONTROLS BOX LIFTER GUIDE           | PASSING <b>PH2</b> AND ENERGIZING <b>PH3</b> TRIGGERS BOX LIFTER GUIDE TO UP POSITION   |
|            |         |                    |                                     |   |
| TIMER      | T2      | 1.5 (SEC)          | DELAY BETWEEN LIFTERS AND VIBRATION | SETTINGS DETERMINES DELAY THE RAISED LIFTERS AND BEGINNING OF VIBRATION TO FREE A STUCK CARTON. TIMER IS INITIATED AFTER <b>PH3</b> IS TRIGGERED AND CANCELLED BY <b>PH4</b> . SETTING SHOULD OCCUR VERY SOON AFTER LIFTERS ARE RAISED TO ENSURE THE BEST PRODUCTION RATE |
|            |         |                    |                                     |   |
| TIMER      | T3      | 1 (.1 SEC)         | LIFTER VIBRATION FREQUENCY          | DETERMINES THE UP AND DOWN AMPLITUDE (VIBRATION HEIGHT AND FREQUENCY) OF LIFTER AND SET FOR APPROXIMATELY 1/2" OR LESS AMPLITUDE (LIFT AND DROP) DURING VIBRATION. TOO HIGH SETTINGS WILL ALSO SHAKE THE SEALING MECHANISM UNNECESSARILY                                  |
|            |         |                    |                                     |   |
| TIMER      | T4      | 3 (SEC)            | SHAKE DURATION                      | SETTINGS DETERMINES HOW LONG SHAKING OCCURS (STUCK CARTONS) BEFORE MACHINE SHUTS OFF  |
|            |         |                    |                                     |   |
| TIMER      | T5      | 0 (SEC)            | INDEXER RESET                       | SETTINGS DETERMINES DELAY AFTER <b>PH4</b> LIFTERS TO DOWN POSITION   |
|            |         |                    |                                     |   |
| TIMER      | T6      | 0 (SEC)            | MINOR FLAP KICKER                   | SETTINGS DETERMINES DELAY AFTER <b>PH4</b> MINOR ARM TO UP POSITION   |
|            |         |                    |                                     |   |

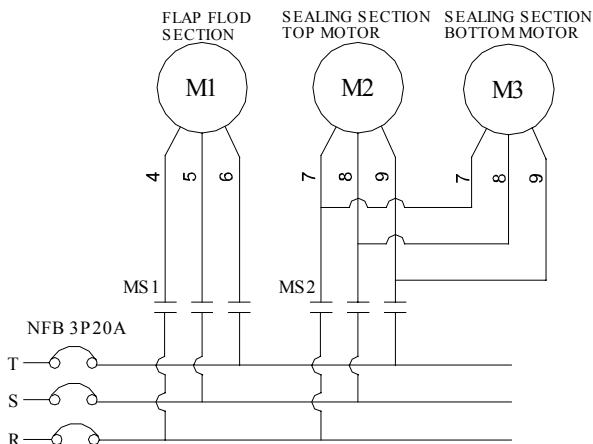
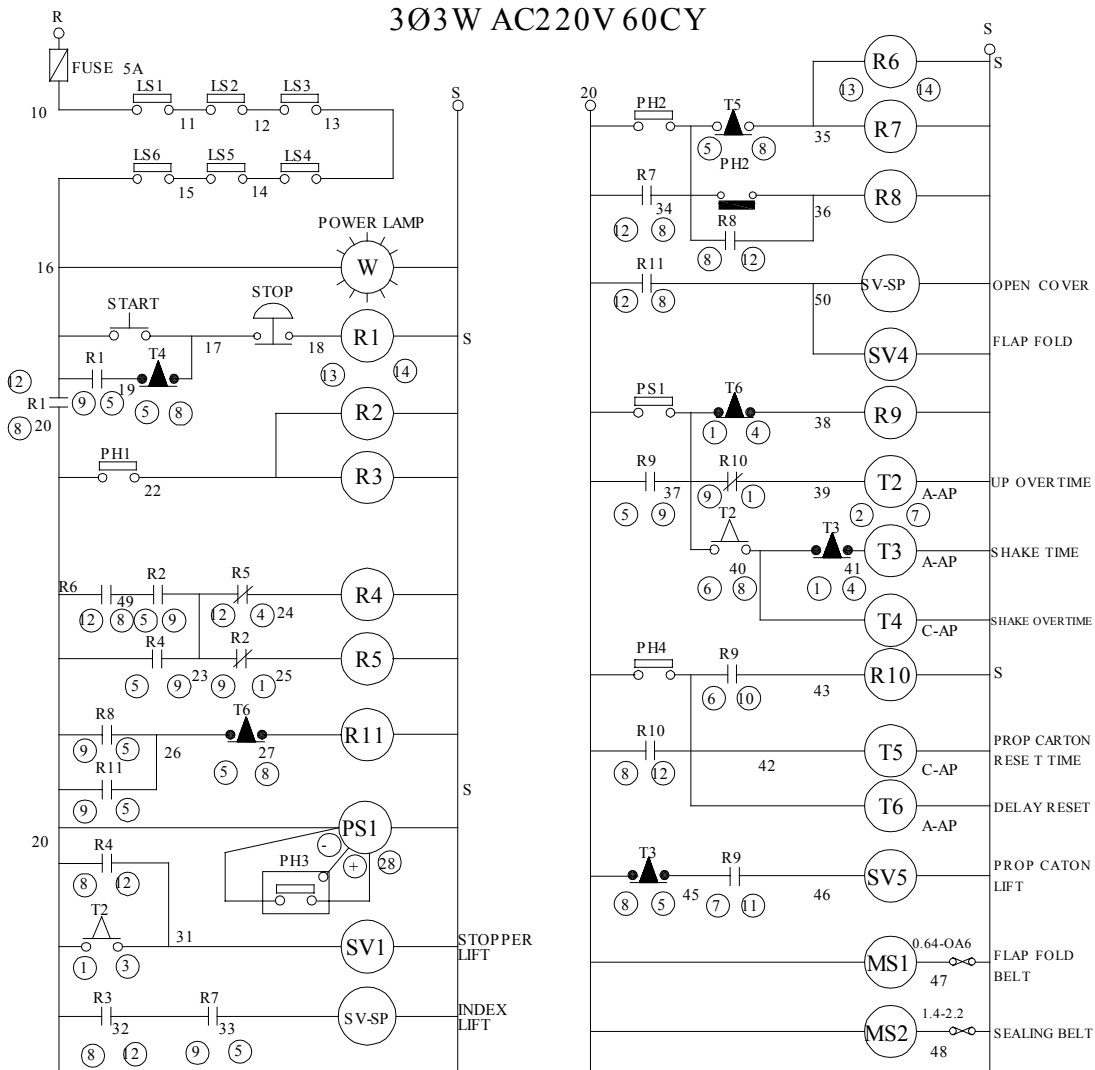
## ATFUX11-3H ELECTRICAL BOX

FIGURE 5-1



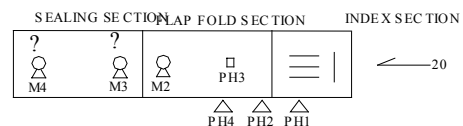
1. Power Light - Indicates system is plugged in and turned on.
2. Start Button - Starts system and activates electrical and pneumatics.
3. Stop Button - Shuts system off.
4. Circuit Breaker - Overload protection device.
5. Motor Starter - Activates electrical power to motors and overload protection device.
6. Fuse - Overload protection device.
7. Relay - Electromechanical switching device in a circuit for motor and cylinder sensors.
8. Timer - Time delay timers to control indexers feeding, flap folding, vibration and frequency of the lifters.
9. Thermal Overload - Control device to protect the motor from the motor from destroying itself under an overload situation.

# ELECTRICAL DIAGRAM



PH1.PH2.PH4:OMRON E3JKDS30M1  
PH3:SICK WT9-2N130  
PS1 :ANLY PU-UB 220V  
LS1 -LS6:OMRON Z-15GQ22-B

PH1:INDEX LIFTING PH4:UP RESET  
PH2:FLAP FOLD CHECK LS1-LS6: SAFETY GATE  
PH3:UP CHECK





## INSTALLATION CHECKLIST

|                            |  |
|----------------------------|--|
| Power:                     | 1PH 110/220vac 50/60Hz or 3PH 220VAC 50/60Hz |
| Voltage fluctuation range: | 95% - 105%                                   |
| Temperature:               | 40 degrees to 105 degrees Fahrenheit         |
| Relative humidity:         | 30% to 80% RH                                |
| Noise Level:               | 70 DECIBELS                                  |

## MACHINE PACKING

The machine is secured on a pallet, wrapped with bubble wrap, covered with double wall corrugated box, then secured onto the pallet with two plastic straps.

## UNCRATING PROCEDURES

1. Position the crate in a large, uncluttered area to unpack the machine.
2. Lift and remove the corrugated box.
3. Remove the bubble wrap.
4. Remove the shipping anchors on the four legs.
5. Lift the machine from the pallet using properly rated cord.
6. If the casters are attached, the machine can be moved manually and rolled to the proper location.

## SETUP PROCEDURE

It is important that the ATFUX series be setup and operated with the product prior to being subjected to the production environment where time for setup, adjustment, and operator training is usually limited.

**CAUTION:** Make sure machine power is turned off. Be careful with the driving direction of the conveyer.

**HEIGHT ADJUSTMENT:** Once both tape heads are loaded with tape, the upper tape head can be positioned for the box height being sealed by means of the height adjustment crank. Turn (H) clockwise to decrease height or counter-clockwise to increase height. [Fig 2-1]

**BOX SIZE SETUP:** Place a closed box under the top drive frame. Lower the frame until all flaps are fully closed. Align the box top flap center seam with the center of the frame. [Fig 2-2]

FIGURE 2-1

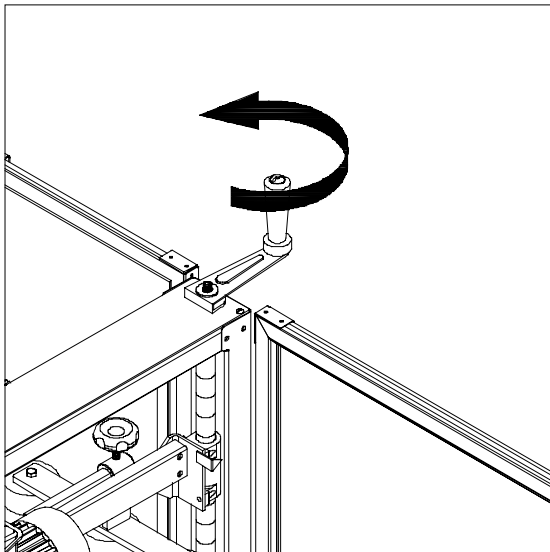
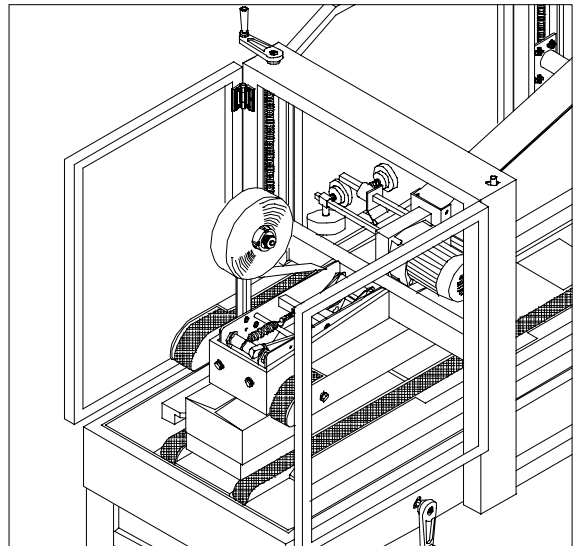


FIGURE 2-2



**WIDTH ADJUSTMENT CRANK:** Turn the handle (W) clockwise for narrow and smaller packages; turn the handle counter-clockwise for wider and larger packages. [Fig 2-3]

**COMPRESSION ROLLERS:** Adjust the compression rollers against the top edge of the box and tighten the knobs to secure them in the operating position. [Fig 2-4]

**FRAME ADJUSTMENT:** Turn electrical switch to the “ON” position to start the drive belts. Move the box forward under the top tape head frame until taken away by the drive belts. If the box is hard to move or is crushed, raise the frame slightly to decrease pressure. If the box movement is erratic or stops under the frame, lower the frame slightly to add more pressure between the box and the drive belts.



**CAUTION:** If drive belts are allowed to slip on the box. Excessive belt wear will occur.

FIGURE 2-3

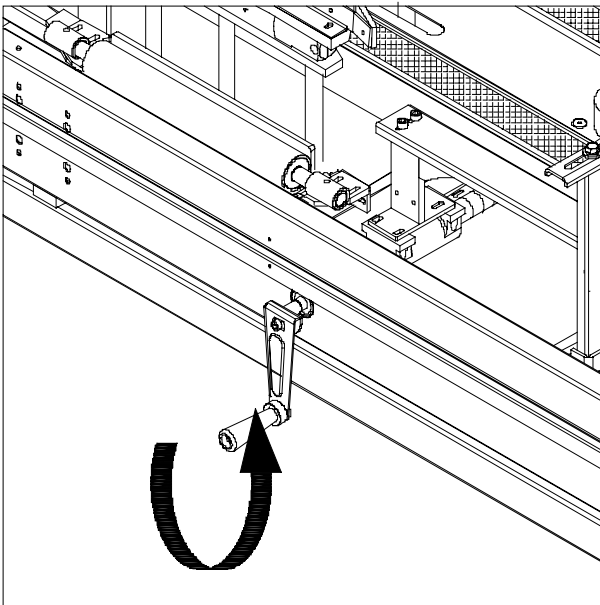


FIGURE 2-4

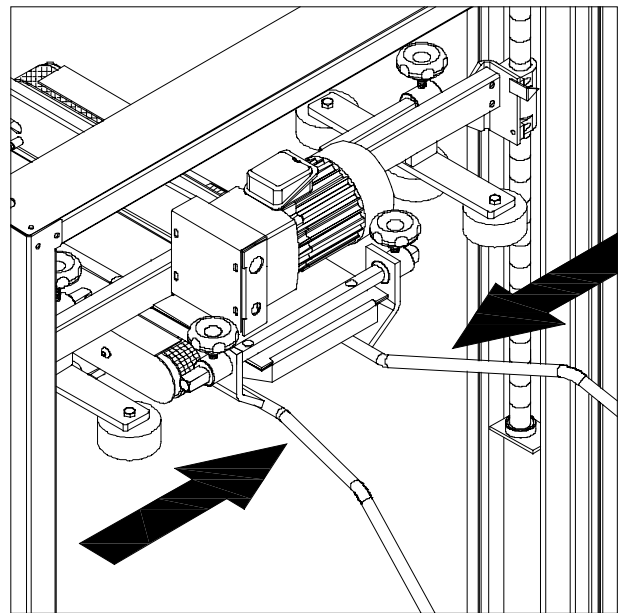


FIG. 9-4

**CHANGING BELTS:**

1. Use 10mm open wrench to removed screw **B** on belt cover **A**.
2. Use 10mm open wrench to loosen screw **C** until belts are loose.
3. Remove belt by pulling toward **C**.
4. Replace belts by following the reverse procedure.

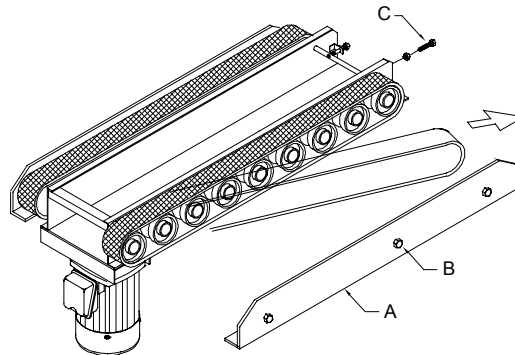


FIG. 9-4

FIG. 9-5

**AIR INSTALLATION:**

1. Air flush the piping before installation.
2. Using piping adaptors will ease installation.
3. Polycarbonate bowls may be damage and possibly fail if exposed to sysnthetic oils, thinner solvents.  
If used aboved atmosphere use metal bowl.
4. Water builds up in polycarbonate bowls overtime, release the valve to drain.
5. Main regulator valve should be in upright position always.
6. Attached the main air supply source to coupler plug in main air regulator.

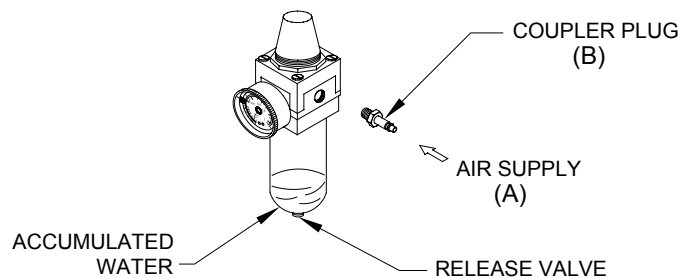
**AIR SUPPLY**

FIG. 9-5

## DAILY PREVENTATIVE MAINTENANCE

### Two-Minute Maintenance (after every shift)

In order to maintain your BestPack® carton sealer in top operating condition, please take two minutes after every shift change to perform the following maintenance procedure.

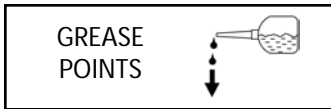
1. Clean the Machine
    - a. Blow the machine down with dry air paying special attention to all moving parts.
  2. Clean the Blade
    - a. Wipe down the cutting blades with a clean rag making sure to remove any glue and plastic film that may have adhered to the blade.
      - (i) For stubborn accumulation, spray some solvent; i.e., WD-40 or Zylene, onto a rag to wipe the blade clean.

**CAUTION !** Do NOT get WD-40 on the rubber rollers. Do NOT use any hard objects to scrape accumulation from the blade as it could damage the blade.

  - b. Wipe a thin layer of Vaseline onto the blade as your last cleaning step.
3. Water Reservoir (applicable if the machine uses air)
  - a. If your carton sealer uses air, check for moisture build-up in the water reservoir.
  - b. If there is water in the reservoir, bleed off any moisture that has accumulated in the water reservoir of the air regulator by pushing the button located at the bottom of the glass container on the main regulator.

**IMPORTANT SAFETY REMINDER!** Remember to lockout all energy sources (i.e. power down and shut off air supply) and release stored energy prior to servicing or moving the machine to prevent injury

# LUBRICATION



It is important to lubricate all moving parts on the machine to keep it in top operating condition. Lubricate the following areas with grease or oil (as indicated) every two months.

## INDICATED GREASE POINTS

FIG. 3-1

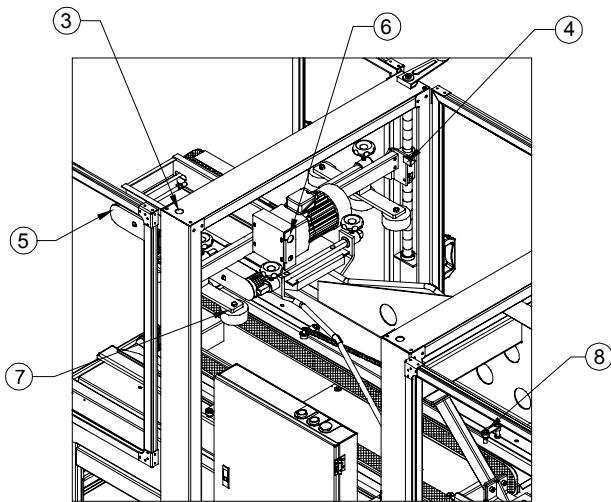


FIG. 3-2

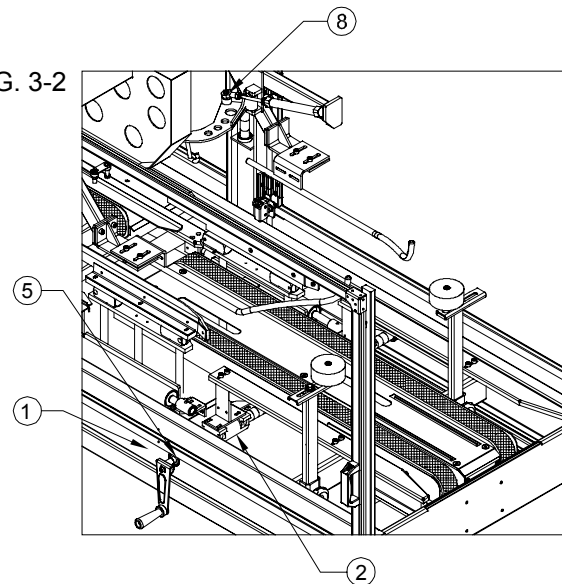
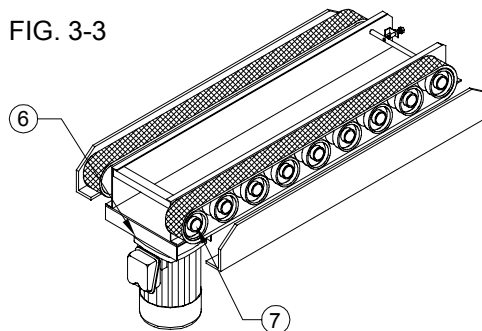


FIG. 3-3



## LUBRICATE THE FOLLOWING:

1. Chain drive mechanism for width adjustment.
2. Spindle screw mechanism for width adjustment.
3. Chain drive mechanism for height adjustment.
4. Slide mechanism for height adjustment.
5. Sprocket for spindle screw mechanism for width adjustment.
6. Drive mechanism for drive motor.
7. Drive and Idler pulleys for belt drive assembly.
8. Pivot shafts

|        |           |
|--------|-----------|
| GREASE | [Fig 3-2] |
| GREASE | [Fig 3-2] |
| GREASE | [Fig 3-1] |
| GREASE | [Fig 3-1] |
| OIL    | [Fig 3-2] |
| GREASE | [Fig 3-1] |
| OIL    | [Fig 3-3] |
| OIL    | [Fig 3-1] |

## TROUBLESHOOTING

Review SETUP PROCEDURE to ensure setup is correct. If correct, the troubleshooting chart below lists possible problems, causes, corrections, and reference guide.

*\* Denotes to reference your tape head manual*

| PROBLEM  | POSSIBLE CAUSES                              | CORRECTION  |
|--|--|---|
| 1. Drive belts do not convey boxes               | Narrow boxes                                 | Check machine specifications. Boxes are narrower than recommended causing slippage and premature belt wear. |
|  | Worn drive belts                             | Replace drive belts   |
|  | Top flap compression rollers in too tight    | Readjust compression rollers  |
|  | Top tape head does not apply enough pressure | Adjust the box height adjustment with the crank   |
|  |  |   |
| 2. Drive belts do not turn                       | Worn bearings, gears, or driving shaft       | Replace ball bearing, gears, or driving shaft   |
|  | Drive belt tension too loose                 | Adjust belt tension screw   |
|  | Electrical disconnect                        | Check power and electrical plug   |
|  | Motor not running                            | Check the fuse, capacitor, and setting of thermal relay   |
|  |  |   |
| 3. Drive belts break                             | Worn belt                                    | Replace belt  |
|  |  |   |
| 4. Light boxes tip back on exit                  | Top drive frame down too far                 | Carefully adjust top drive frame  |
|  |  |   |
| 5. Squeaking noise as boxes pass through machine | Dry compression rollers                      | Lubricate compression rollers   |
|  | Driving pulleys                              | Lubricate plastic and aluminum pulleys and replace, if defective  |

## TROUBLESHOOTING (cont'd)

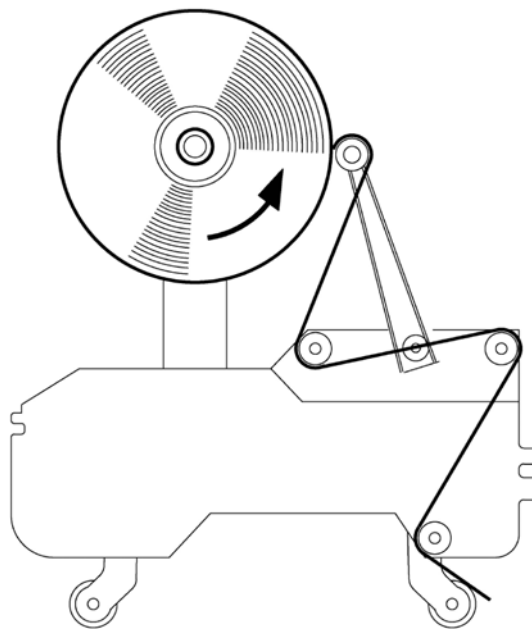
| PROBLEM   | POSSIBLE CAUSE   | CORRECTION   |
|---|--|--|
| 6. Tape not centered on box                                   | Tape drum not centered                                 | Reposition tape drum *   |
|   | Top compression rollers not aligned with the tape head | Align the left and right compression roller to the tape head *                       |
|   | Box flaps not of equal length                          | Check box specifications and adjust accordingly                                      |
|   |  |  |
| 7. Blade does not cut tape, or tape end is jagged or shredded | Blade is dull and/or has broken teeth                  | Replace blade *  |
|   | Tape tension is insufficient                           | Increase tape tension by adjusting the mandrel wheel *                               |
|   | Adhesive has build-up on blade                         | Clean and adjust the blade *   |
|   | Blade not positioned properly                          | Check that the blade is bottomed out against the mounting bolts *                    |
|   | Blade is dirty   | Clean blade and lubricate the oiler pad on the blade guard *                         |
|   | Blade in backwards                                     | Mount the blade so that the beveled edge is away from the entrance end of the head * |
|   | Blade spring guard                                     | Replace the defective spring   |



## TROUBLESHOOTING (cont'd)

| PROBLEM                   | CAUSE  | CORRECTION   |
|---------------------------|--|--|
| 8. Tape is leaving a fold | There is excess tension on the tape mandrel assembly | Adjust the mandrel knurled wheel *   |
|                           | Rollers in the tape path do not rotate freely        | Clean adhesive deposits from the surface, ends, and shafts. Then lubricate roller shafts. Remove all lubricants from roller surfaces |
|                           | Blade not cutting tape properly                      | Refer to tape cutting problems; surface, ends, shafts, and the rollers *   |
|                           | Tape threaded incorrectly                            | Rethread the tape *  |

CORRECT TAPE THREADING PATH



## **PARTS REPLACEMENT & ORDERING**

Replacement parts and prices are available from your local BestPack® distributor. Please contact your local BestPack® distributor for part availability.

A listing of our BestPack® representatives are located on our website at: <http://www.bestpack.com>

If you are unable to contact a local distributor near you, contact our BestPack® US office at the following location:

**FUTURE COMMODITIES INT'L**

BestPack® Packaging Systems

10676 Fulton Court

Rancho Cucamonga, CA 91730-4848

TEL: (909) 987-4258

FAX: (909) 987-5189

## RECOMMENDED SPARE PARTS

It is recommended that the following items be ordered and kept on hand:

### *MSD recommended spare parts list*

| QUANTITY | PART NUMBER | DESCRIPTION                 |
|----------|-------------|-----------------------------|
| 2        | 27280031    | BEARING, BALL 6003ZZ        |
| 2        | 27280091    | BEARING, BALL 6202ZZ        |
| 1        | 14201       | GEAR, DRIVE 21T ID M16 CW   |
| 1        | 14202       | GEAR, FOLLOW 18T ID M16 CCW |
| 2        | 2710049.A   | BELT, 2475mm X2" BLK        |
| 2        | 2710006.BA  | BELT, 1168mm X2" BLK        |
| 1        | 2811183     | RELAY, THERMAL .64-.96AMPS  |
| 1        | 2811186     | RELAY, THERMAL 1.4-2.2A     |
| 1        | 2830109     | RELAY, LY2NJ OMRON 220V     |
| 1        | 28R3102206B | MOTOR, TH 220V 10:1 3 PHASE |

### *Silver Tape Head recommended spare parts list*

| QTY | 3" PARTS | DESCRIPTION            |
|-----|----------|------------------------|
| 1   | TH311500 | ROLLER, FRONT 3"       |
| 1   | 10096-1  | SPRING, MAIN TOP       |
| 1   | 10096-2  | SPRING, MAIN BOTTOM    |
| 1   | TH340300 | ROLLER, RUBBER REAR 3" |
| 1   | 10122-0  | BLADE, CUTTER 3"       |
| 1   | AC320502 | MANDREL, PLASTIC 3"    |
| 2   | 10116    | BUSHING, BUMPER        |
| 2   | 10117    | BUMPER, RUBBER         |
| 1   | TH320300 | ROLLER, 1-WAY BRASS 3" |

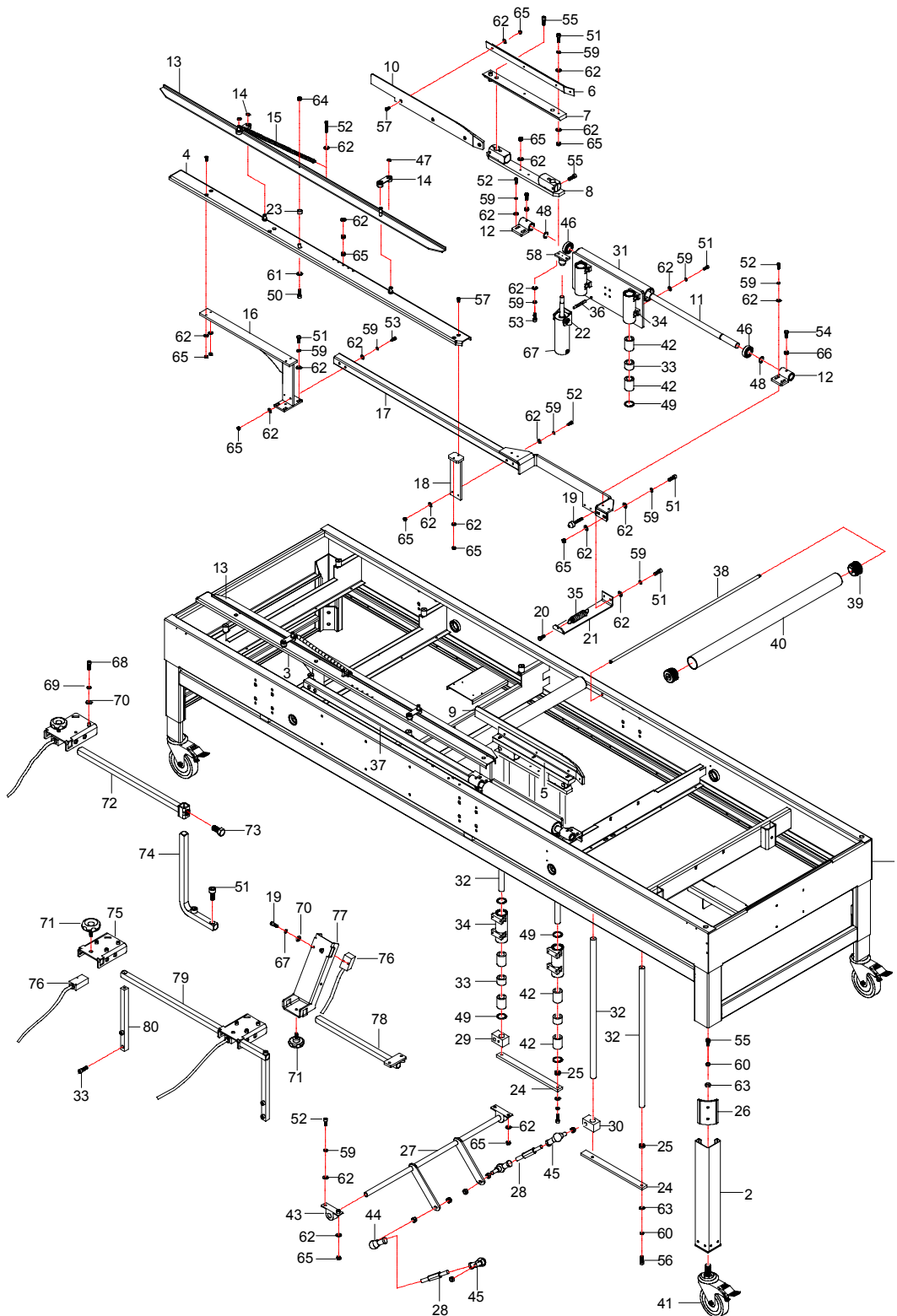
*Note: Part Numbers, Descriptions, and Pricing are all subject to change without prior notification. Call for pricing.*

## TOOL KIT

A tool kit is provided with the purchase of a BestPack® machine. The tool kit contains the following items: the necessary open-ended wrenches 7mm, 8mm, 10mm, 12mm, and 14mm; set of Allen head wrenches; set of tape head and settle shaft springs; flat screwdriver and Phillips screwdriver; spanner (threading tool); oil applicator; and paintbrush.

The tool kit (Part #90N390 referenced above) is available as a stock item.

## FRAME ASSEMBLY



**FRAME ASSEMBLY PARTS LIST**

| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 1       | M8101003 | 1   | FRAME, ROLLER BED              |
| 2       | A1104000 | 4   | LEG, 11" EXTENSION M65X65      |
| 3       | M8139003 | 1   | GUIDE, RAIL PLATE -L           |
| 4       | M8140003 | 1   | GUIDE, RAIL PLATE- R           |
| 5       | M8125002 | 1   | BRACKET, LIFTER GUIDE-L        |
| 6       | M8126002 | 1   | BRACKET, LIFTER GUIDE-R        |
| 7       | M8127003 | 2   | PLATE, LIFTER GUIDE            |
| 8       | M8128002 | 2   | PLATE, LIFTER FIXED            |
| 9       | M8123002 | 1   | GUIDE, NYLON LIFTER- L         |
| 10      | M8124002 | 1   | GUIDE, NYLON LIFTER-R          |
| 11      | M8119002 | 2   | SHAFT, GUIDE RAIL PIVOT        |
| 12      | M8120002 | 4   | HOLDER, SHAFT PIVOT            |
| 13      | M8142003 | 2   | PLATE, GUIDE RAIL-L            |
| 14      | M8141002 | 4   | ARM, PLATE GUIDE RAIL          |
| 15      | M8150002 | 2   | SPRING, PLATE GUIDE RAIL       |
| 16      | M8110003 | 2   | BRACKET, GUIDE RAIL-R          |
| 17      | M8115003 | 1   | SUPPORT, GUIDE RAIL ASSEMBLY-R |
| 18      | M8116003 | 2   | BRACKET, GUIDE RAIL SUPPORT    |
| 19      | M8149002 | 2   | BUMPER, RUBBER                 |
| 20      | M8161002 | 2   | SCREW, SPRING TENSION          |
| 21      | M8136002 | 2   | BRACKET, SPRING TENSION        |
| 22      | M8147002 | 2   | BRACKET, CYLINDER FIXED        |
| 23      | M8143002 | 2   | BUSHING, GUIDE RAIL            |
| 24      | M8133002 | 2   | PLATE, LIFTER SHAFT            |
| 25      | M8130002 | 2   | SPACER, LIFTER SHAFT           |
| 26      | 12370    | 4   | BRACKET, EXTENSION LEG M95X95  |
| 27      | M8135003 | 1   | ARM, LIFTER SHAFT              |
| 28      | M8134002 | 2   | SHAFT, LIFTER ADJUSTER         |
| 29      | M8131002 | 1   | BLOCK, ROD END MOUNT-L         |
| 30      | M8132002 | 1   | BLOCK, ROD END MOUNT-R         |

**FRAME ASSEMBLY PARTS LIST (con't)**

BMFAATFXU2

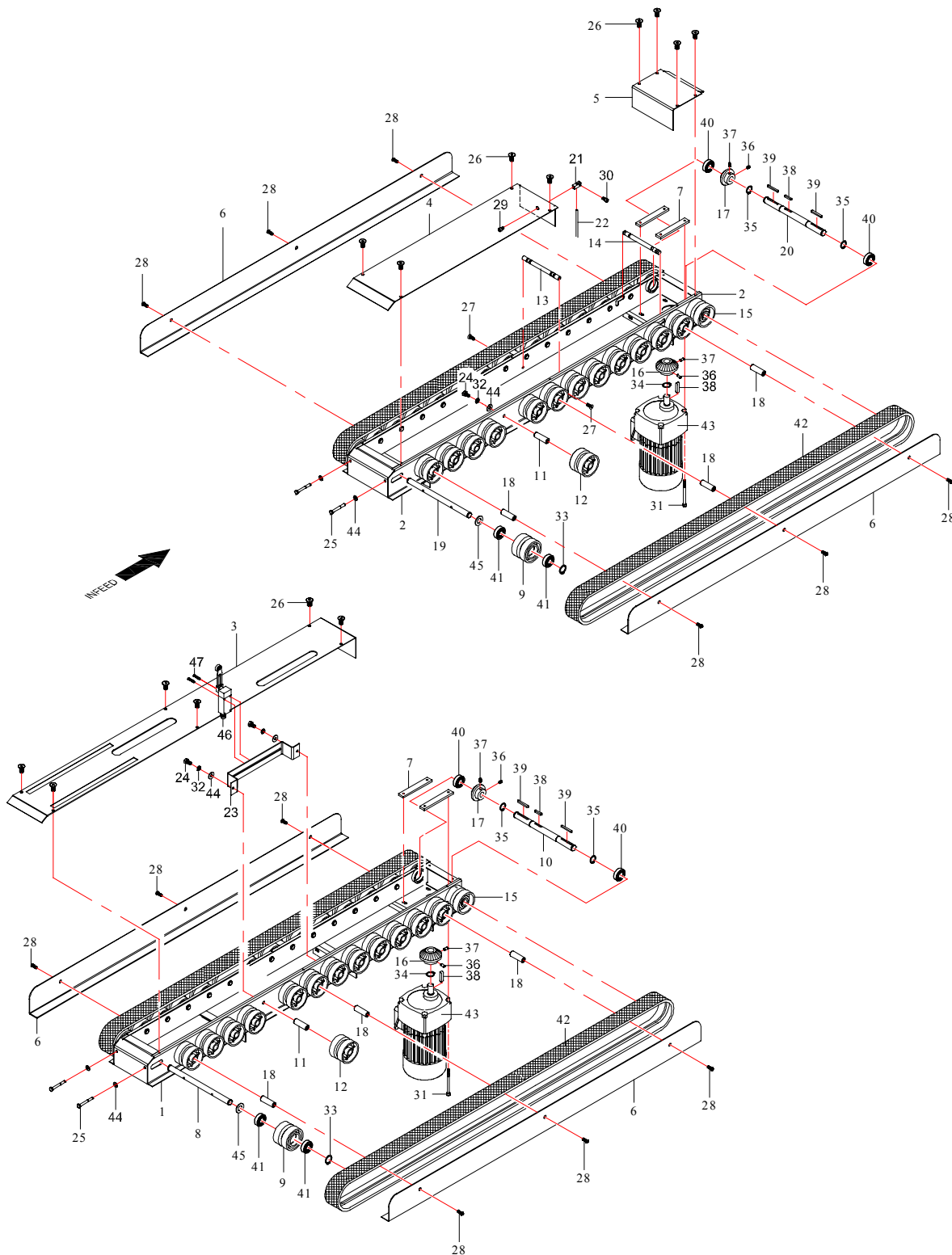
| KEY NO. | PART NO.  | QTY | DESCRIPTION                    |
|---------|-----------|-----|--------------------------------|
| 31      | M8117002  | 2   | PLATE, PIVOT SUPPORT           |
| 32      | 18042     | 4   | SHAFT, ADJ HEIGHT M600X20      |
| 33      | 16159     | 4   | BUSHING, SLIDING BLOCK         |
| 34      | 16153     | 4   | BLOCK, SLIDING M20             |
| 35      | 10096-2   | 2   | SPRING, MAIN (BOTTOM) CHROME   |
| 36      | 10097     | 2   | SCREW, MAIN SPRING ADJ M8X64   |
| 37      | M8114003  | 1   | SUPPORT, GUIDE RAIL ASSEMBLY-L |
| 38      | M8155003  | 2   | SHAFT, ROLLER M9.5X750         |
| 39      | C4129020  | 4   | BUSHING, ROLLER CAP M45X30     |
| 40      | M8156003  | 2   | ROLLER, ALUM M48X727           |
| 41      | 2712104   | 4   | CASTER, 5" HEAVY DUTY          |
| 42      | 2728102   | 8   | BEARING, LINEAR M20            |
| 43      | 27285201  | 2   | BEARING, PILLOW BLOCK BPP03    |
| 44      | NF09242   | 2   | ROD END, M12X1.75 W/ STUD-RH   |
| 45      | NF09242-1 | 2   | ROD END, M12X1.75 W/ STUD-LH   |
| 46      | 27280042  | 4   | BEARING, BALL 6004ZZ           |
| 47      | 2706001   | 8   | RING, RETAINING I.D M8.5 S10   |
| 48      | 2706015   | 4   | RING, RETAINING M19            |
| 49      | 2706203   | 8   | RING, RETAINING R32            |
| 50      | 2701034   | 2   | SCREW, SOCKET HD M5X15         |
| 51      | 2701020   | 40  | SCREW, SOCKET HD M6X16         |
| 52      | 2701021   | 16  | SCREW, SOCKET HD M6X20         |
| 53      | 2701038   | 8   | SCREW, SOCKET HD M6x25         |
| 54      | 2701062   | 4   | SCREW, SOCKET HD M8X12         |
| 55      | 2701005   | 8   | SCREW, SOCKET HD M8X20         |
| 56      | 2701029   | 4   | SCREW, SOCKET HD M8X25         |
| 57      | 2702027   | 18  | SCREW, FLAT HD SOCKET M6x20    |
| 58      | 2721160   | 2   | FLANGE, CYLINDER MOUNT         |
| 59      | 2705202   | 62  | WASHER, SPLIT LOCK M6          |
| 60      | 2705203   | 12  | WASHER, SPLIT LOCK M8          |

**FRAME ASSEMBLY PARTS LIST (con't)**

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| KEY NO. | PART NO. | QTY | DESCRIPTION                |
|---------|----------|-----|----------------------------|
| 61      | 2705103  | 2   | WASHER, FLAT M5            |
| 62      | 2705002  | 92  | WASHER, FLAT M6            |
| 63      | 2705003  | 12  | WASHER, FLAT M8            |
| 64      | 2707001  | 2   | NUT, HEX JAM M5            |
| 65      | 2707002  | 42  | NUT, HEX JAM M6            |
| 66      | 2707011  | 4   | NUT, HEX JAM M8            |
| 67      | 2920207  | 2   | CYLINDER, AIR CDG1UA32-100 |

## BELT DRIVE ASSEMBLY





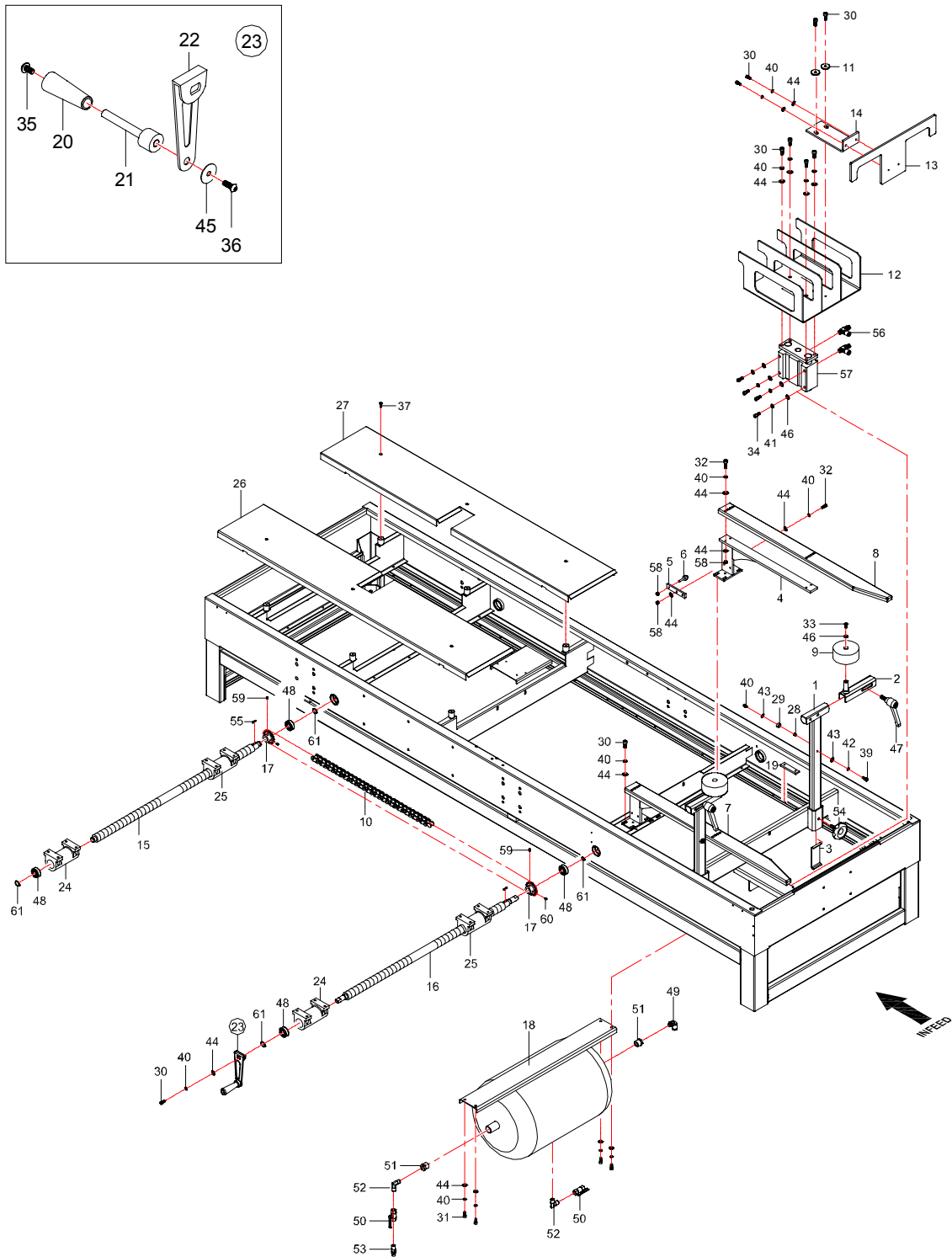
## BELT DRIVE ASSEMBLY PARTS LIST

| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 1       | M8201001 | 1   | FRAME, BOTTOM DRIVE 3" FRONT   |
| 2       | M8202001 | 1   | FRAME, BOTTOM DRIVE 3" REAR    |
| 3       | M8213003 | 1   | PLATE, COVER BELT FRONT        |
| 4       | M8218001 | 1   | COVER, REAR BELT SET - FRONT   |
| 5       | M8219001 | 1   | COVER, REAR BELT SET - REAR    |
| 6       | M8214002 | 4   | COVER, DRIVE BELT              |
| 7       | 14016    | 4   | PLATE, M112X18Xt6              |
| 8       | 14001    | 1   | SHAFT, IDLE PULLEY M15X236 2"  |
| 9       | 14004    | 4   | WHEEL, ALUM FOLLOWER M65.5X50  |
| 10      | 14010    | 1   | SHAFT, DRIVE HBLT M17X235 2"   |
| 11      | 14005    | 40  | SHAFT, PLASTIC WHEEL M15X47    |
| 12      | 14006    | 52  | PULLEY, NYLON M65.5X48         |
| 13      | 20008    | 1   | SHAFT, T/HEAD M12X155 (BOLTED) |
| 14      | 20035    | 1   | SHAFT, T/HEAD M12X163 (SPRING) |
| 15      | 14007    | 4   | PULLEY, ALUM DRIVER M65.5X52   |
| 16      | 14201    | 2   | GEAR, DRIVE 21T ID M16 CW      |
| 17      | 14202    | 2   | GEAR, FOLLOW 18T ID M17 CCW    |
| 18      | 14080    | 12  | SHAFT, BELT PLATE M69X15       |
| 19      | 14001-1  | 1   | SHAFT, IDLE PULLEY M15X237     |
| 20      | 14010-0  | 1   | SHAFT, DRIVE HBLT M17X262 3"   |
| 21      | M8221002 | 1   | HOLDER, COPPER TUBE            |
| 22      | M8222002 | 1   | TUBE, COPPER 120L              |
| 23      | M8223003 | 1   | BRACKET, LIMIT SLIDE MOUNT     |
| 24      | 2700026  | 52  | SCREW, HEX HD M6X12            |
| 25      | 2700030  | 4   | SCREW, HEX HD M6X50            |
| 26      | 2702040  | 14  | SCREW, FLAT SOCKET M4X8        |
| 27      | 2702208  | 2   | SCREW, FALT SOCKET M6X15       |
| 28      | 2701302  | 2   | SCREW, BUTTON HD SOCKET M8X16  |
| 29      | 2701036  | 1   | SCREW, FLAT HD SOCKET M6x8     |
| 30      | 2701027  | 1   | SCREW, SOCKET HD M6X12         |

**BELT DRIVE ASSEMBLY PARTS LIST (cont'd)**

| KEY NO. | PART NO.    | QTY | DESCRIPTION                 |
|---------|-------------|-----|-----------------------------|
| 31      | 2701155     | 8   | SCREW, SOCKET HD M6X80      |
| 32      | 2705202     | 52  | WASHER, SPLIT LOCK M6       |
| 33      | 2706004     | 4   | RING, RETAINING M15         |
| 34      | 2706005     | 2   | RING, RETAINING M16         |
| 35      | 2706006     | 4   | RING, RETAINING M17         |
| 36      | 2704001     | 4   | SCREW, SOCKET SET M6X6      |
| 37      | 2704002     | 4   | SCREW, SOCKET SET M6X10     |
| 38      | 2709001     | 4   | KEY, M5X5X25                |
| 39      | 2709002     | 4   | KEY, M5X5X40                |
| 40      | 27280031    | 4   | BEARING, BALL 6003ZZ        |
| 41      | 27280093    | 8   | BEARING, BALL 6202ZZ        |
| 42      | 2710049.A   | 4   | BELT, 2475mm X2" BLK        |
| 43      | 28R3102206B | 2   | MOTOR, TH 220V 10:1 3 PHASE |
| 44      | 2705002     | 58  | WASHER, FLAT M6             |
| 45      | 18010       | 4   | SPACER, OD28XID15.3xt2 mm   |
| 46      | 2853002     | 1   | SWITCH, LIMIT HL-5030       |
| 47      | 2703007     | 2   | SCREW, ROUND HD M4X35       |

## WIDTH DRIVE ASSEMBLY



**WIDTH DRIVE ASSEMBLY PARTS LIST**

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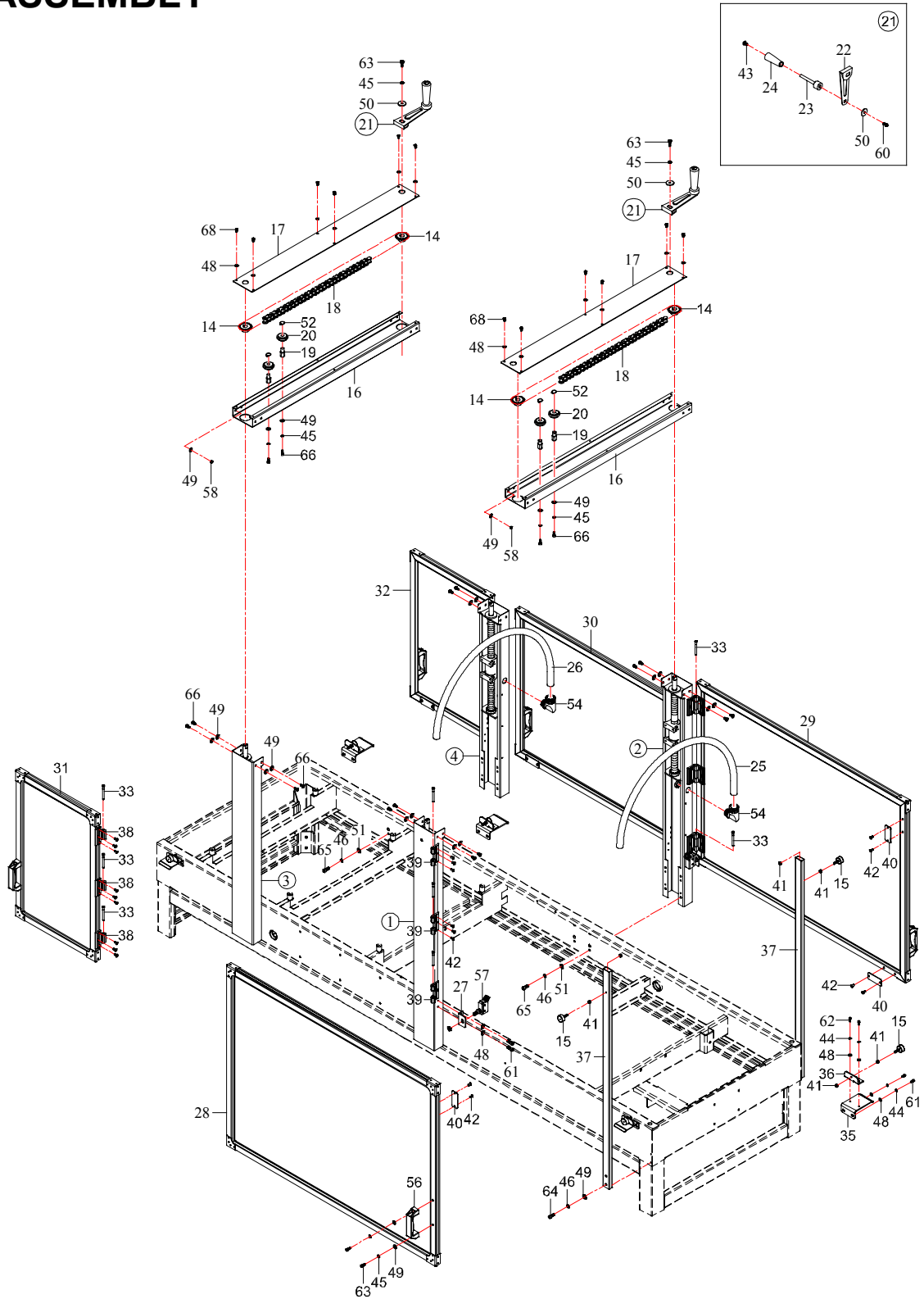
| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 1       | M8111003 | 2   | BRACKET, COMPR'N ROLLER        |
| 2       | M8113002 | 2   | BRACKET, ROLLER EXTN           |
| 3       | M8112002 | 2   | PLATE, COMPRESSION ROLLER POST |
| 4       | M8109004 | 2   | BRACKET, FIX PLATE             |
| 5       | M8118002 | 2   | PLATE, RUBBER BUMPER           |
| 6       | M8148002 | 2   | BUMPER, RUBBER                 |
| 7       | M8121003 | 1   | RAIL, FRONT GUIDE- L           |
| 8       | M8122003 | 1   | RAIL, FRONT GUIDE-R            |
| 9       | 20024-1  | 2   | WHEEL, TOP COMPR'N GRAY        |
| 10      | M8160003 | 1   | CHAIN, LINK RS20X220           |
| 11      | M8609002 | 2   | WASHER, FLAT M8X20X4           |
| 12      | M8601004 | 1   | BRACKET, SUPPORT INDEXER       |
| 13      | M8605003 | 1   | PLATE, STOPPER INDEXER         |
| 14      | M8607000 | 1   | PLATE, STOPPER LINK            |
| 15      | M8106003 | 1   | SHAFT, WIDTH ADJ - REAR        |
| 16      | M8105003 | 1   | SHAFT, WIDTH ADJ - FRONT       |
| 17      | 16021    | 2   | SPROCKET, 15T 40 CHAIN         |
| 18      | M8901003 | 1   | RESERVOIR, AIR                 |
| 19      | 12250    | 2   | PLATE, LEG SUPPORT M64X25X4    |
| 20      | 18001    | 1   | HANDLE, NYLON TAPERED          |
| 21      | 16093    | 1   | SHAFT, CRANK HANDLE            |
| 22      | 18197-1  | 1   | HANDLE, STEEL ARM              |
| 23      | A1115000 | 1   | HANDLE, STEEL ARM ASSEMBLY     |
| 24      | 16020    | 2   | BLOCK, WIDTH M29 LH TW 1/8"    |
| 25      | 16019    | 2   | BLOCK, WIDTH M29 RH TW 1/8"    |
| 26      | M8145003 | 1   | COVER, FRAME- LH               |
| 27      | M8146003 | 1   | COVER, FRAME- RH               |
| 28      | 10116    | 2   | BUSHING, BUMPER M8X7           |
| 29      | 10117    | 2   | BUMPER, RUBBER M15X7           |
| 30      | 2701014  | 17  | SCREW, SOCKET HD M6X16         |

**WIDTH DRIVE ASSEMBLY PARTS LIST (con't)**

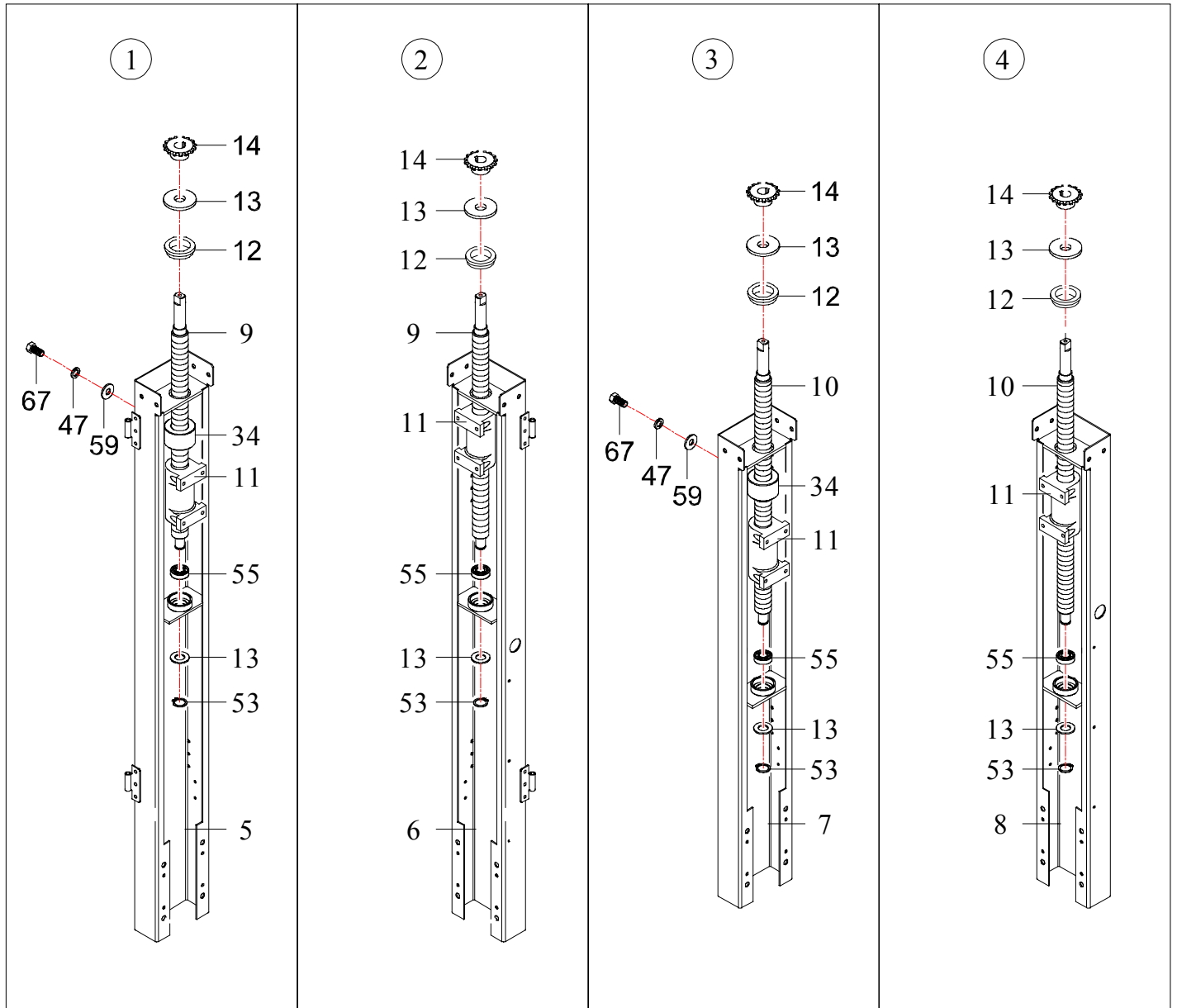
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| KEY NO. | PART NO.    | QTY | DESCRIPTION                   |
|---------|-------------|-----|-------------------------------|
| 31      | 2701002     | 4   | SCREW, SOCKET HD M6X20        |
| 32      | 2701003     | 12  | SCREW, SOCKET HD M6X25        |
| 33      | 27010051    | 2   | SCREW, SOCKET HD M8X16        |
| 34      | 2701023     | 4   | SCREW, SOCKET HD M8X20        |
| 35      | 2701351     | 1   | SCREW, OVAL PHILIP M6X12      |
| 36      | 2701305     | 1   | SCREW, OVAL SOCKET HD M6X16   |
| 37      | 2702031     | 6   | SCREW, FLAT HD M6X16          |
| 38      | 2700032     | 2   | SCREW, HEX HD M5X12           |
| 39      | 2701034     | 2   | SCREW, SOCKET HD M5X15        |
| 40      | 2705202     | 31  | WASHER, SPLIT LOCK M6         |
| 41      | 2705203     | 4   | WASHER, SPLIT LOCK M8         |
| 42      | 2705201     | 2   | WASHER, SPLIT LOCK M5         |
| 43      | 2705103     | 2   | WASHER, FLAT M5               |
| 44      | 2705002     | 43  | WASHER, FLAT M6               |
| 45      | 2705199     | 1   | WASHER, FLAT FENDER M6.5X25X2 |
| 46      | 2705003     | 6   | WASHER, FLAT M8               |
| 47      | 2707255     | 2   | HANDLE, THREADED STUD TYPE    |
| 48      | 2728003     | 4   | BEARING, BALL 60003Z (N146.0) |
| 49      | 29093382    | 1   | VALVE, SPEED CONTROL JPL10-02 |
| 50      | 2909501     | 2   | VALVE, SHUT OFF BRASS 1/4X1/4 |
| 51      | 2909120     | 2   | FITTING, STRAIGHT             |
| 52      | 2908021     | 2   | VALVE, SPEED CONTROL JSC 6M5  |
| 53      | 2909029     | 1   | FITTING, COUPLER PLUG CP21    |
| 54      | 2702101     | 2   | KNOB, LOCKING 3/8-13UNC       |
| 55      | 2709001     | 2   | KEY, M5X5X25                  |
| 56      | 2908017     | 2   | VALVE, SPEED CONTROL 1/8X8    |
| 57      | 29MGQM50-25 | 1   | CYLINDER, AIR MGQM50-25       |
| 58      | 2707002     | 14  | NUT, HEX JAM M6               |
| 59      | 2704003     | 2   | SCREW, SOCKET HD M5X5         |
| 60      | 2704006     | 2   | SCREW, SOCKET HD M5X10        |
| 61      | 2706005     | 4   | RING, RETAINING M16           |

# MAST ASSEMBLY



## MAST ASSEMBLY



## MAST ASSEMBLY PARTS LIST

| KEY NO. | PART NO. | QTY | DESCRIPTION                   |
|---------|----------|-----|-------------------------------|
| 1       | M8301A02 | 1   | MAST, LEFT FRONT ASSEMBLY     |
| 2       | M8302A02 | 1   | MAST, RIGHT FRONT ASSEMBLY    |
| 3       | M8303A02 | 1   | MAST, LEFT REAR ASSEMBLY      |
| 4       | M8304A02 | 1   | MAST, RIGHT REAR ASSEMBLY     |
| 5       | M8301002 | 1   | MAST, LEFT FRONT              |
| 6       | M8302002 | 1   | MAST, RIGHT FRONT             |
| 7       | M8303002 | 1   | MAST, LEFT REAR               |
| 8       | M8304002 | 1   | MAST, RIGHT REAR              |
| 9       | M8306002 | 2   | SHAFT, FRONT LIFTING SCREW    |
| 10      | M8305002 | 2   | SHAFT, REAR LIFTING SCREW     |
| 11      | 18006    | 4   | BLOCK, SLIDING TW1-6ACME (RH) |
| 12      | M8309002 | 4   | BUSHING, BRASS                |
| 13      | 18010    | 8   | SPACER, OD28XID15.3xt2 mm     |
| 14      | 18169    | 4   | SPROCKET, RS35X12T            |
| 15      | D2321000 | 7   | MAGNET, LOCK GATE             |
| 16      | M8312003 | 2   | CHANNEL, MAST SUPPORT         |
| 17      | M8313003 | 2   | COVER, MAST CROSS BEAM        |
| 18      | M8331003 | 2   | CHAIN, RS35 X 197 W/ CONNECTO |
| 19      | 18029    | 4   | SPACER, STAND OFF HEX H14X2.9 |
| 20      | 53337    | 4   | ROLLER, CHAIN ADJUSTER        |
| 21      | A1115000 | 2   | HANDLE, STEEL ARM ASSEMBLY    |
| 22      | 18197-1  | 2   | HANDLE, STEEL ARM             |
| 23      | 16093    | 2   | SHAFT, CRANK HANDLE           |
| 24      | 18001    | 2   | HANDLE, NYLON TAPERED         |
| 25      | M8346003 | 1   | CONDUIT, ELECTRICAL -FRONT    |
| 26      | M8347003 | 1   | CONDUIT, ELECTRICAL -REAR     |
| 27      | 18348    | 5   | BRACKET, GATE MICRO SWITCH    |
| 28      | M8351004 | 1   | GATE, SAFETY LEFT - FRONT     |
| 29      | M8352004 | 1   | GATE, SAFETY RIGHT - FRONT    |
| 30      | M8354004 | 1   | GATE, SAFETY MID - RIGHT      |



**MAST ASSEMBLY PARTS LIST (con't)**

BMMAATFXU1.7

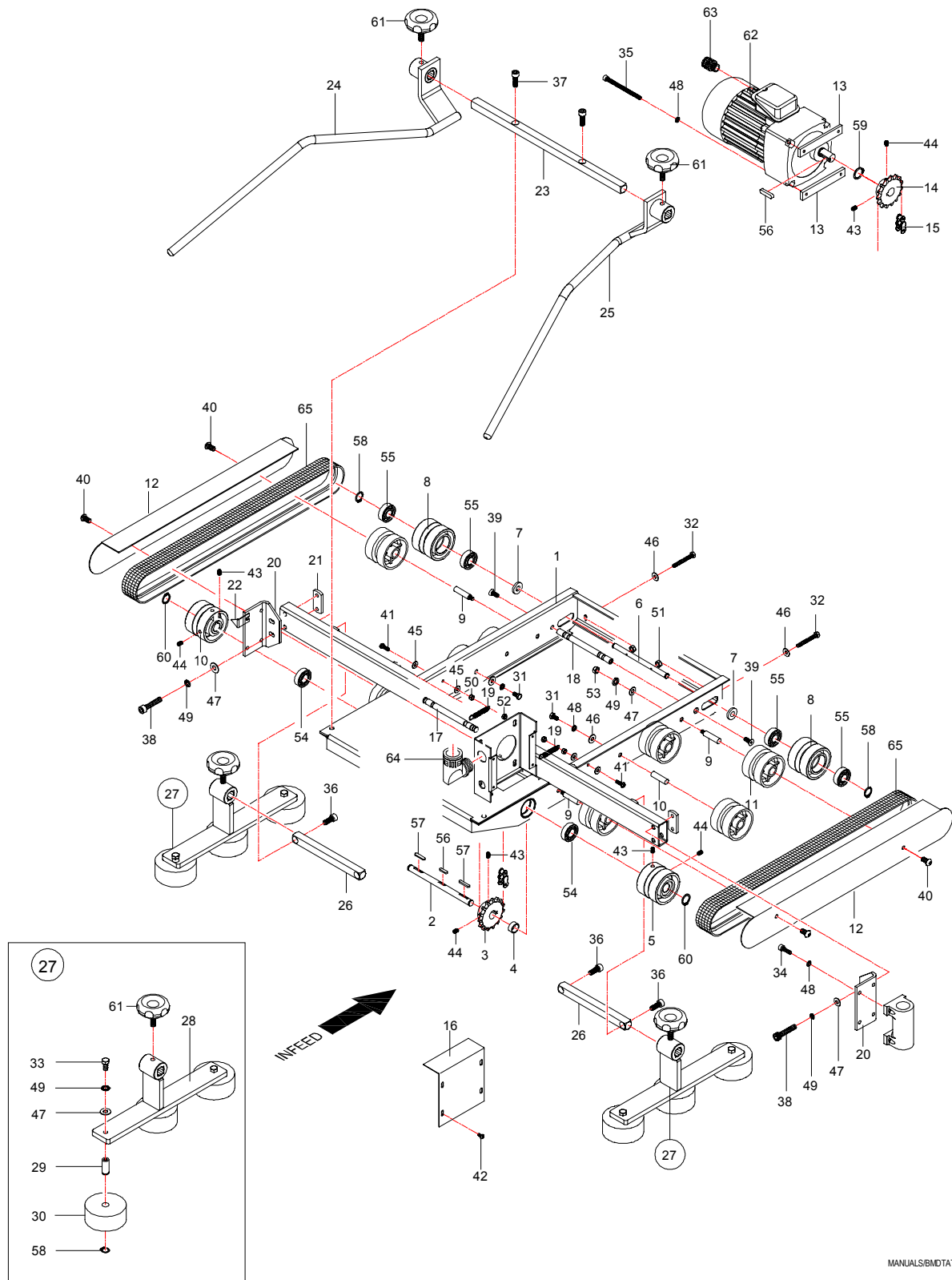
| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 31      | M8355004 | 1   | GATE, SAFETY LEFT - REAR       |
| 32      | M8356004 | 1   | GATE, SAFETY RIGHT - REAR      |
| 33      | D2320030 | 15  | PIN, GATE HINGE M6X62          |
| 34      | M8308000 | 2   | COVER, SCREW SHAFT             |
| 35      | D2326001 | 5   | BRACKET, LATCH MOUNTING        |
| 36      | D2330000 | 5   | PLATE, MAGNET SUPPORT          |
| 37      | M8331004 | 2   | BAR, POST SAFETY GATE          |
| 38      | D2320010 | 15  | LATCH, GATE                    |
| 39      | D2320020 | 15  | LATCH, MAST                    |
| 40      | D2316072 | 7   | PLATE, MAGNETIC MINOR          |
| 41      | 2707023  | 14  | NUT, HEX M5                    |
| 42      | 2740000  | 59  | RIVETS, 3/16" X1/4             |
| 43      | 2701351  | 2   | SCREW, OVAL PHILIP M6X12       |
| 44      | 2705201  | 20  | WASHER, SPLIT LOCK M5          |
| 45      | 2705202  | 18  | WASHER, SPLIT LOCK M6          |
| 46      | 2705203  | 16  | WASHER, SPLIT LOCK M8          |
| 47      | 2705208  | 2   | WASHER, SPLIT LOCK M10         |
| 48      | 2705103  | 42  | WASHER, FLAT M5                |
| 49      | 2705102  | 36  | WASHER, FLAT M6                |
| 50      | 2705199  | 4   | WASHER, FLAT FENDER M6.5X25X2  |
| 51      | 2705101  | 16  | WASHER, FLAT M8                |
| 52      | 2706001  | 4   | RING, RETAINING M10            |
| 53      | 2706004  | 4   | RING, RETAINING M15            |
| 54      | 2860091  | 2   | FITTING, ELBOW ELECT'L TUBE PG |
| 55      | 27280462 | 4   | BEARING, BALL 6002ZZ           |
| 56      | 2740201  | 5   | HANDLE, PLASTIC M131X114       |
| 57      | 2853006  | 5   | SWITCH, LIMIT OMRON Z-15GQ22B  |
| 58      | 2707102  | 16  | NUT, HEX JAM NYLOCK M6         |
| 59      | 2705118  | 2   | WASHER, FLAT M10               |
| 60      | 2701305  | 2   | SCREW, OVAL SOCKET HD M6X16    |

**MAST ASSEMBLY PARTS LIST (con't)**

BMMAATFXU1.7

| KEY NO. | PART NO. | QTY | DESCRIPTION            |
|---------|----------|-----|------------------------|
| 61      | 2704006  | 10  | SCREW, SOCKET HD M5X10 |
| 62      | 2701033  | 4   | SCREW, SOCKET HD M5X12 |
| 63      | 2701020  | 12  | SCREW, SOCKET HD M6X16 |
| 64      | 2701021  | 4   | SCREW, SOCKET HD M6X20 |
| 65      | 2701168  | 16  | SCREW, SOCKET HD M8X16 |
| 66      | 2700002  | 20  | SCREW, HEX HD M6X12    |
| 67      | 27000621 | 2   | SCREW, HEX HD M10X20   |
| 68      | 2703223  | 12  | SCREW, ROUND HD M5x8   |

## TOP DRIVE FRAME ASSEMBLY



## TOP DRIVE ASSEMBLY PARTS LIST

| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 1       | M8401003 | 1   | FRAME, TOP DRIVE ATFUX22-3H    |
| 2       | 14010-0  | 1   | SHAFT, DRIVE HBLT M17X262 3"   |
| 3       | 18151    | 1   | SPROCKET, 1/2"X10TX17 SS41     |
| 4       | 14009    | 1   | SPACER, DRIVE SHAFT M21.7X17X1 |
| 5       | 14007    | 2   | PULLEY, ALUM DRIVER M65.5X52   |
| 6       | 14001-1  | 1   | SHAFT, IDLE PULLEY M15X237     |
| 7       | 18010    | 2   | SPACER, OD28XID15.3xt2 mm      |
| 8       | 14004    | 2   | WHEEL, ALUM FOLLOWER M65.5X50  |
| 9       | 14080    | 4   | SHAFT, BELT PLATE M69X15       |
| 10      | 14005    | 10  | SHAFT, PLASTIC WHEEL M15X47    |
| 11      | 14006    | 10  | PULLEY, NYLON M65.5X48         |
| 12      | 20419    | 2   | COVER, TOP BELT PLATE          |
| 13      | 14016    | 2   | PLATE, M112X18Xt6              |
| 14      | 22121    | 1   | SPROCKET, MOTOR RS40X12T       |
| 15      | K6421000 | 1   | CHAIN, RS35X36 W/ LINK         |
| 16      | 54442    | 1   | COVER, TOP MOTOR CHAIN         |
| 17      | 20008    | 1   | SHAFT, T/HEAD M12X155 (BOLTED) |
| 18      | 20035    | 1   | SHAFT, T/HEAD M12X163 (SPRING) |
| 19      | 20009    | 2   | SPRING, SETTLE SHAFT           |
| 20      | 20058    | 2   | PLATE, ANGLE                   |
| 21      | 18267    | 2   | PLATE, M25X50X6                |
| 22      | 18012    | 1   | INDICATOR, HEIGHT              |
| 23      | M8515003 | 1   | SHAFT, SQUARE M16X16           |
| 24      | M8510003 | 1   | GUIDE, MAJOR FLAP FOLDER-LEFT  |
| 25      | M8511003 | 1   | GUIDE, MAJOR FLAP FOLDER-RIGHT |
| 26      | M8405002 | 2   | SHAFT, TOP COMPRERSSION M13X13 |
| 27      | M8406A02 | 2   | COMPRESSION ROLLER, ASSEMBLY A |
| 28      | M8406002 | 2   | BRACKET, TOP COMPRESSION       |
| 29      | 20437    | 6   | SHAFT, COMPRN ROLLER M15X38    |
| 30      | 20024-1  | 6   | WHEEL, TOP COMPR'N GRAY        |

**TOP DRIVE ASSEMBLY PARTS LIST (cont'd)**

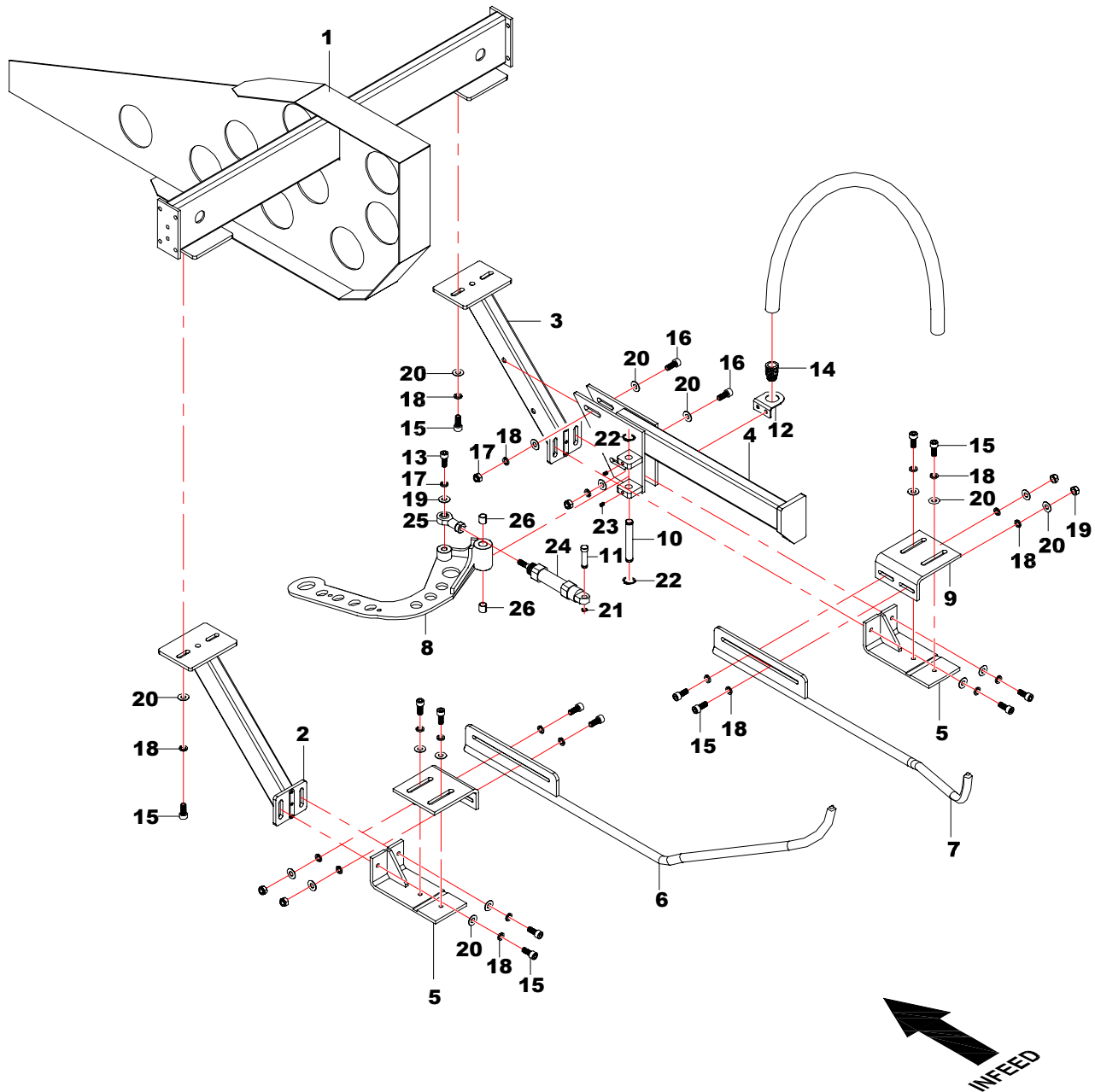
| KEY NO. | PART NO. | QTY | DESCRIPTION                   |
|---------|----------|-----|-------------------------------|
| 31      | 2700026  | 8   | SCREW, HEX HD M6X12           |
| 32      | 2700030  | 2   | SCREW, HEX HD M6X50           |
| 33      | 2700046  | 6   | SCREW, HEX HD M8X30           |
| 34      | 2701020  | 8   | SCREW, SOCKET HD M6X16        |
| 35      | 2701028  | 4   | SCREW, SOCKET HD M6X80        |
| 36      | 2701030  | 2   | SCREW, SOCKET HD M8X16        |
| 37      | 2701029  | 2   | SCREW, SOCKET HD M8X25        |
| 38      | 2701057  | 2   | SCREW, SOCKET HD M8X40        |
| 39      | 2702020  | 2   | SCREW, FLAT HD M6X12          |
| 40      | 2701302  | 4   | SCREW, BUTTON HD SOCKET M8X16 |
| 41      | 2703202  | 2   | SCREW, PAN HD PHILIP M5X15    |
| 42      | 2701354  | 4   | SCREW, OVAL HD M4X6           |
| 43      | 2704001  | 2   | SCREW, SOCKET SET M6X6        |
| 44      | 2704002  | 2   | SCREW, SOCKET SET M6X10       |
| 45      | 2705103  | 4   | WASHER, FLAT M5               |
| 46      | 2705102  | 5   | WASHER, FLAT M6               |
| 47      | 2705101  | 2   | WASHER, FLAT M8               |
| 48      | 2705202  | 8   | WASHER, SPLIT LOCK M6         |
| 49      | 2705203  | 2   | WASHER, SPLIT LOCK M8         |
| 50      | 2707023  | 2   | NUT, HEX M5                   |
| 51      | 2707020  | 2   | NUT, HEX M6                   |
| 52      | 2707101  | 2   | NUT, HEX JAM NYLOCK M5        |
| 53      | 2707103  | 2   | NUT, HEX NYLOCK M8            |
| 54      | 27280030 | 2   | BEARING, BALL 6000zz          |
| 55      | 27280091 | 4   | BEARING, BALL 6202ZZ          |
| 56      | 2728002  | 4   | BEARING, BALL 6002ZZ          |
| 57      | 2709001  | 1   | KEY, M5X5X25                  |
| 58      | 2709002  | 2   | KEY, M5X5X40                  |
| 59      | 2706004  | 2   | RING, RETAINING M15           |
| 60      | 2706005  | 1   | RING, RETAINING M16           |

**TOP DRIVE ASSEMBLY PARTS LIST (cont'd)**

BMDTATFXU1.6

| KEY NO. | PART NO.    | QTY | DESCRIPTION                 |
|---------|-------------|-----|-----------------------------|
| 61      | 2706006     | 2   | RING, RETAINING M17         |
| 62      | 2702101     | 4   | KNOB, LOCKING 3/8-13UNC     |
| 63      | 28R3102206B | 1   | MOTOR, TH 220V 10:1 3 PHASE |
| 64      | 2812903     | 1   | CONNECTOR, TUBE             |
| 65      | 2960091     | 1   | FITTINGS, ELBOW ELECTRICAL  |
| 66      | 2710006.BA  | 2   | BELT, 1168mm X2" BLK        |

## FLAP FOLDING ASSEMBLY

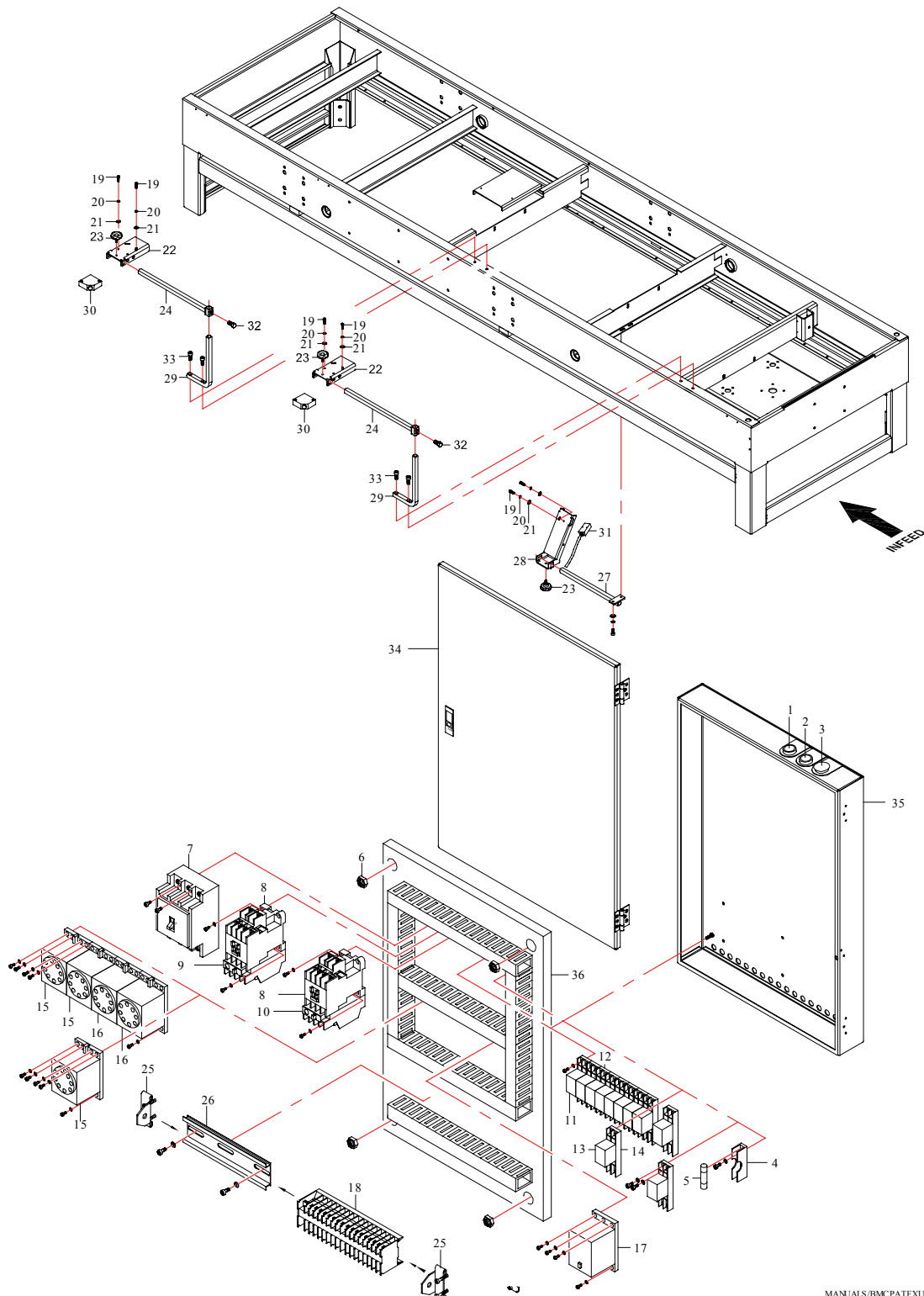


**FLAP FOLDING ASSEMBLY PARTS LIST**

| KEY NO. | PART NO. | QTY | DESCRIPTION                   |
|---------|----------|-----|-------------------------------|
| 1       | M8501003 | 1   | FRAME, MAJOR FLAP FOLDER      |
| 2       | M8502003 | 1   | ARM, EXTENSION GUIDE RAIL-LH  |
| 3       | M8503003 | 1   | ARM, EXTENSION GUIDE RAIL-RH  |
| 4       | M8506003 | 1   | BRACKET, KICKER MOUNT         |
| 5       | M8512003 | 2   | BRACKET, FLAP FOLD GUIDE RAIL |
| 6       | M8504004 | 1   | RAIL, MAJOR FLAP FOLDER (LH)  |
| 7       | M8505004 | 1   | RAIL, MAJOR FLAP FOLDER (RH)  |
| 8       | M8507003 | 1   | KICKER, ARM MINOR FLAP        |
| 9       | M8520003 | 2   | BRACKET, SUPPORT ADJUST       |
| 10      | M8509002 | 1   | SHAFT, CYLINDER MOUNT KICKER  |
| 11      | M8513002 | 1   | SHAFT, MOUNTING PIN           |
| 12      | M8827002 | 1   | BRACKET, ELECTRICAL CONDUIT   |
| 13      | 2701014  | 1   | SCREW, SOCKET HD M6X16        |
| 14      | 2860065  | 1   | FITTING, ELECTRICAL           |
| 15      | 2701168  | 16  | SCREW, SOCKET HD M8X16        |
| 16      | 27010080 | 2   | SCREW, SOCKET HD M8X50        |
| 17      | 2707103  | 2   | NUT, HEX NYLOCK M8            |
| 18      | 2705203  | 24  | WASHER, SPLIT LOCK M8         |
| 19      | 2707022  | 4   | NUT, HEX M8                   |
| 20      | 2705003  | 20  | WASHER, FLAT M8               |
| 21      | 2706024  | 1   | RING, RETAINING S7            |
| 22      | 2706002  | 2   | RING, RETAINING M12           |
| 23      | 2704003  | 2   | SCREW, SOCKET HD M5X5         |
| 24      | 29200671 | 1   | CYLINDER, AIR CDM2C32-100A    |
| 25      | 2728422  | 1   | ROD END, PHS 10X1.5           |
| 26      | 27283123 | 2   | BUSHING, DRY MB1215           |



## CONTROL PANEL DIAGRAM



MANUALS/BMC/PATFUX1.6

## CONTROL PANEL PARTS LIST

| KEY NO. | PART NO. | QTY | DESCRIPTION                    |
|---------|----------|-----|--------------------------------|
| 1       | 2871740A | 1   | LAMP, INDICATOR TE ZB4-BV01    |
| 2       | 2871720A | 1   | BUTTON, TE ZB4-BA3             |
| 3       | 2871715A | 1   | KNOB, TE ZB4-BC4               |
| 4       | 2839114  | 1   | FUSE, DRIVE SET                |
| 5       | 2811654  | 1   | FUSE, 4A                       |
| 6       | 2707002  | 4   | NUT, HEX JAM M6                |
| 7       | 2801103  | 1   | CIRCUIT BREAKER, FUJI EA33 3P2 |
| 8       | 2810217  | 2   | RELAY, MAGNETIC SC-03 4A 220V  |
| 9       | 2811183  | 1   | RELAY, THERMAL .64-.96AMPS     |
| 10      | 2811186  | 1   | RELAY, THERMAL 1.4-2.2A        |
| 11      | 2830109  | 10  | RELAY, LY2NJ OMRON 220V        |
| 12      | 2831204  | 10  | SOCKET, RELAY LY2NJ- PTF-08AM  |
| 13      | 2830006  | 1   | RELAY, MY4NJ 220V              |
| 14      | 2831206  | 1   | SOCKET, RELAY 14 PIN PTF       |
| 15      | 2832110  | 3   | TIMER, MS4S-A-AP 100-240V      |
| 16      | 2832111  | 2   | TIMER, MS4S-C-AP 100-240V      |
| 17      | 2850630  | 1   | CONTROLLER, ANLY PU-UB 220     |
| 18      | 2843201  | 4   | TERMINAL, BLOCK ELECT 1 CELL   |
| 19      | 2701026  | 6   | SCREW, SOCKET HD M4X12         |
| 20      | 2705306  | 6   | WASHER, SPLIT LOCK M4          |
| 21      | 2705006  | 6   | WASHER, FLAT M4                |
| 22      | M8825003 | 2   | BRACKET, SENSOR PHOTO EYE      |
| 23      | 2702101  | 2   | KNOB, LOCKING 3/8-13UNC        |
| 24      | M8824002 | 2   | SHAFT, SQUARE M12X12X455       |
| 25      | 2841251  | 2   | TERMINAL, END CONNECTOR        |
| 26      | 2841213  | 1   | CHANNEL, DIN TRACK MOUNT       |
| 27      | M8822002 | 1   | BRACKET, RAIL PHOTO SENSOR     |
| 28      | M8826002 | 1   | BRACKET, SENSOR BOX LIFTER     |
| 29      | M8823002 | 2   | BRACKET, M13SQXM8.25X3M.25     |
| 30      | 2850002  | 2   | SENSOR, PHOTO E3JKDS30M        |

**CONTROL PANEL PARTS LIST (con't)**

| KEY NO. | PART NO. | QTY | DESCRIPTION               |
|---------|----------|-----|---------------------------|
| 31      | 2850119  | 1   | SENSOR, SICK VTF18-4N1212 |
| 32      | P000620  | 2   | KNOB, LOCKING M6          |
| 33      | 2701014  | 4   | SCREW, SOCKET HD M6X16    |
| 34      | M8802002 | 1   | GATE, ELECTRICAL BOX      |
| 35      | M8801002 | 1   | BODY, ELECTRICAL BOX      |
| 36      | M8803002 | 1   | PANEL, ELECTRIC BOX       |

## **CUSTOMER SERVICE INFORMATION**

Please contact us for your customer service needs between the hours of 8:00 a.m. and 5:00 p.m. pacific standard time.

Candice Wilson  
Customer Service Manager  
(909) 987-4258 ext. 124  
[candice@bestpack.com](mailto:candice@bestpack.com)

Patsy Miller  
Customer Service  
(909) 987-4258 ext. 120  
[patsy@bestpack.com](mailto:patsy@bestpack.com)

## **BESTPACK® CARTON SEALER WARRANTY**

BestPack® Packaging Systems (BestPack®) brand carton sealers are warranted for a period of one year after the date of shipment to be free from defect in material and workmanship. Seller's and manufacturer's only obligation shall be to repair or replace, at their option, any mechanical part proven to be defective, provided the defect/failure occurs within the warranty period and the said part is returned prepaid, immediately, to the BestPack® factory or to an authorized service facility designated by the manufacturer. BestPack® will, at its sole discretion, repair or replace any defective components upon receipt of said defective component. Equipment replaced under the warranty shall have the same warranty as new equipment, but does not extend the warranty of the original equipment. Not covered by this warranty is the normal wear of components; such as, but not limited to: belts, chains, fuses, bulbs, turntable support, rollers, etc., or misuse or abuse of the machine or any components thereof. Parts returned without the prescribed paperwork will not be covered by this warranty. Labor to remove or repair any components is also not covered by this warranty. This warranty does not apply to equipment, which, in the opinion of BestPack, has been subjected to misuse, neglect, or has been repaired or altered by unauthorized personnel. Damage in transport is the responsibility of the carrier and is not covered under our warranty. BestPack's® obligation under this warranty will be to provide for repairs to defective components or replacement of parts FOB BestPack®.

Warranty is void if:

1. Failure is not reported to BestPack® Products within the one-year warranty period.
2. 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.
3. Failure is due to operations above the rated capacities or used in any other improper manner, either intentional or otherwise.
4. Failure is due to equipment that has been altered by anyone other than an authorized representative of BestPack Product Company.
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.
6. The warranty registration form is not completed and returned to Future Commodities Int'l, 10676 Fulton Court, Rancho Cucamonga, CA 91730

The above statements are made in lieu of all warranties, expressed or implied, including the implied warranties for merchantability and fitness for purpose. Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct, incidental, or consequential, arising out of the use of or the inability to use the BestPack brand equipment. No statement or recommendation not contained herein shall have any force effect unless in an agreement signed by an Officer of the seller and manufacturer.

# BESTPACK® WARRANTY REGISTRATION FORM

DATE \_\_\_\_\_

**END USER INFORMATION**

COMPANY NAME \_\_\_\_\_ CONTACT NAME \_\_\_\_\_ TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**DISTRIBUTOR INFORMATION**

COMPANY NAME \_\_\_\_\_ CONTACT NAME \_\_\_\_\_ TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**MACHINE INFORMATION**

MODEL \_\_\_\_\_ SERIAL # \_\_\_\_\_ TYPE \_\_\_\_\_

DISPENSER \_\_\_\_\_ VOLTAGE \_\_\_\_\_ PLANT VOLTAGE (phase x voltage) \_\_\_\_\_

**OTHER INFORMATION (optional)**

DID THE MACHINE ARRIVE IN SATISFACTORY CONDITION? YES \_\_\_\_\_ NO \_\_\_\_\_

IS THIS YOUR FIRST BESTPACK® MACHINE?

DOES YOUR FACILITY USE OTHER BRANDS?

IF YES, PLEASE LIST: \_\_\_\_\_

*To activate warranty (warranty commences from product ship date), the Warranty Registration Form must be completed and sent to:  
BestPack® Packaging Systems, Future Commodities Int'l, 10676 Fulton Court, Rancho Cucamonga, CA 91710*