

MODEL MSD22

SEMI-AUTOMATIC UNIFORM CARTON SEALER

Version 1.9

OPERATION AND PARTS MANUAL

READ ALL INSTRUCTIONS BEFORE OPERATING THIS MACHINE

TABLE OF CONTENTS

Our Commitment	3
Safety	4
OWNER'S SAFETY RESPONSIBILITY	4
SAFETY PROCEDURES	5
EQUIPMENT SAFETY	6
Machine Overview	8
MACHINE DESCRIPTION & FEATURES	8
MACHINE COMPONENTS	11
MACHINE DIMENSIONS	12
Installation/Setup	14
INSTALLATION CHECKLIST	14
MACHINE PACKING	14
UNCRATING PROCEDURES	14
SETUP PROCEDURE	15
Machine Maintenance	17
DAILY PREVENTATIVE MAINTENANCE	18
Troubleshooting	19
Parts Replacement	22
Recommended Spare Parts	23
Drawings and Parts Lists	24
ROLLER BED ASSEMBLY	24
BELT DRIVE ASSEMBLY	26
WIDTH DRIVE ASSEMBLY	29
MAST ASSEMBLY	31
TOP TAPE HEAD DRIVE FRAME ASSEMBLY	33
CONTROL PANEL DIAGRAM	36
Customer Service Information	38
Warranty	39

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]

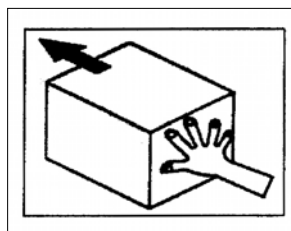


Fig 1-1

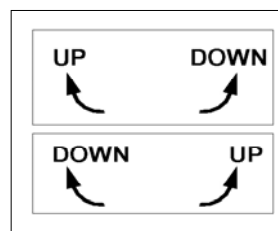


Fig 1-2

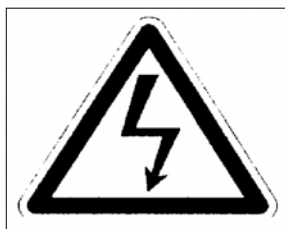


Fig 1-3



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® MSD Semi-Automatic Uniform Carton Sealer is our most popular top of the line operator-fed and adjustable carton sealing machine, designed to cater to the needs of light-to-heavy duty uniform carton closure applications.

Incorporate our exclusive pop out pressure sensitive “High Speed” tape heads with patented tab adjustment, and the dual (telescopic) masts allow for an extra 4” carton height extension on the upper assembly.

- Two Side Belts
- Telescopic Mast Design
- Extra 4” Carton Height Adjustment controls conveniently located on both sides of machine
- Adjustable Bed Height 25.3” to 30.00”
- Width/Height Adjustment either side of machine
- Exclusive 4 roller top compression
- Tape Roll Lengths: 1000 yd., 1500 yd., 2000 yd.
- Heavy Duty Frame
- UL Approved Electrical Parts
- Designed for uniform applications
- Capable of Interchanging 2” or 3” Tape Heads
- Electrical ON/OFF box can be mounted on either side of machine

major features

- Dual Top & Bottom Side Drive 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
- Telescopic Mast Design
- Extra 4” carton height adjustment available on upper assembly
- Adjustable Bed Height 24.5” to 31.25”
- Width/Height Adjustment either side of machine
- Exclusive 4 rollers 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/Bottom Tape 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 Arm
 - 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
- Operation Manual

optional features

- Spare Parts Kit
- High Speed Motor Upgrade (Up to 125 ft./mm.)
- Motorized Height and/or Width Adjustment
- Interlock Safety Gates
- Stainless Steel

machine specifications

- Power Requirements: 110 Volts 60 Hz
- Speed: Up to 40 cartons/minute
- Tape Head: Standard: 2”, Available: 3”
- Shipping Weight: 342 - 550 lbs

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

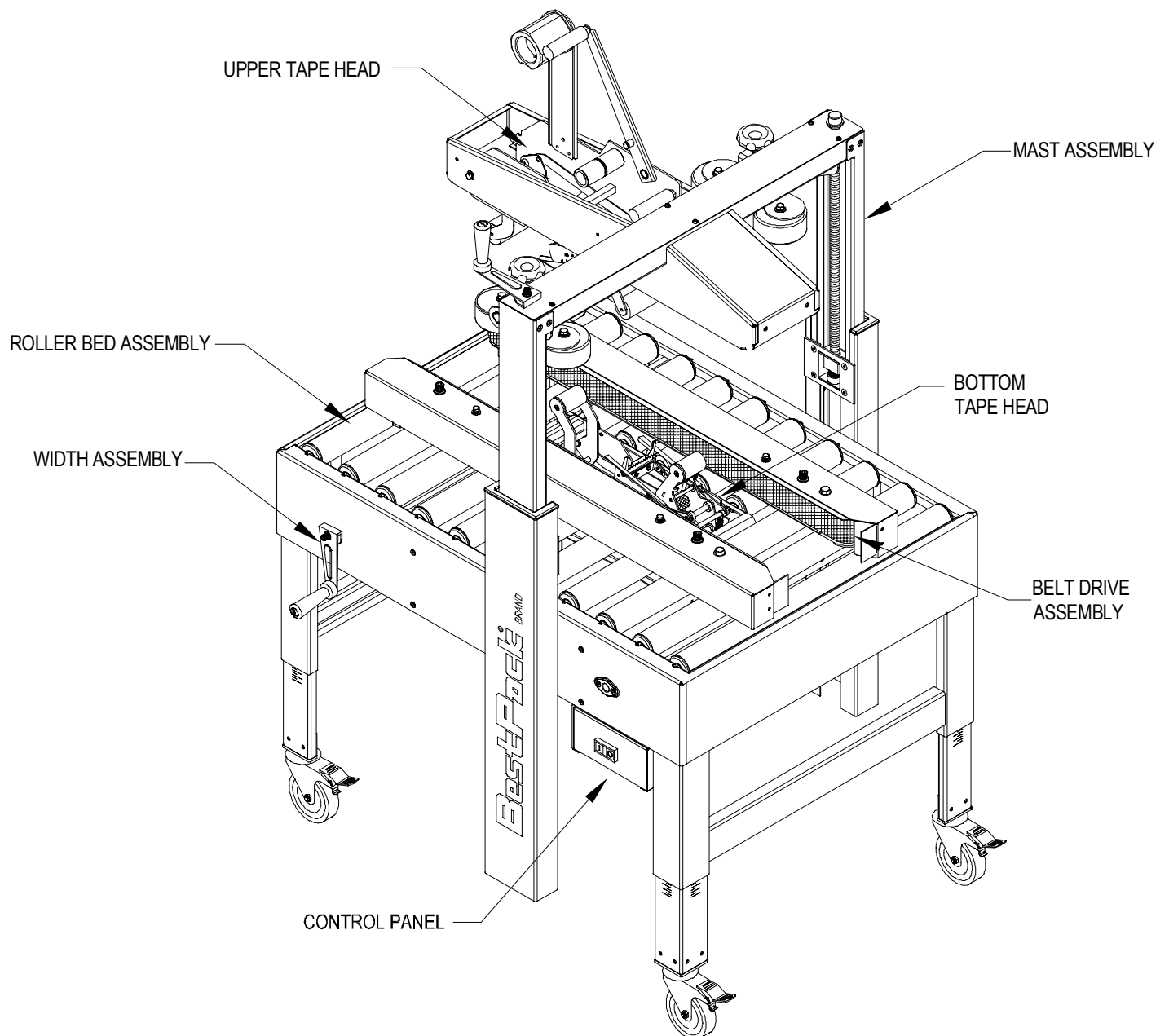
- Use in a dry, relatively clean environment at 40° to 105° Fahrenheit (5 to 40 Celsius) with dry boxes.
- Machine should not be washed down or subjected to conditions causing moisture condensation on components and should be used in a dry, relatively clean environment at 40 to 105 degrees Fahrenheit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

series comparison table

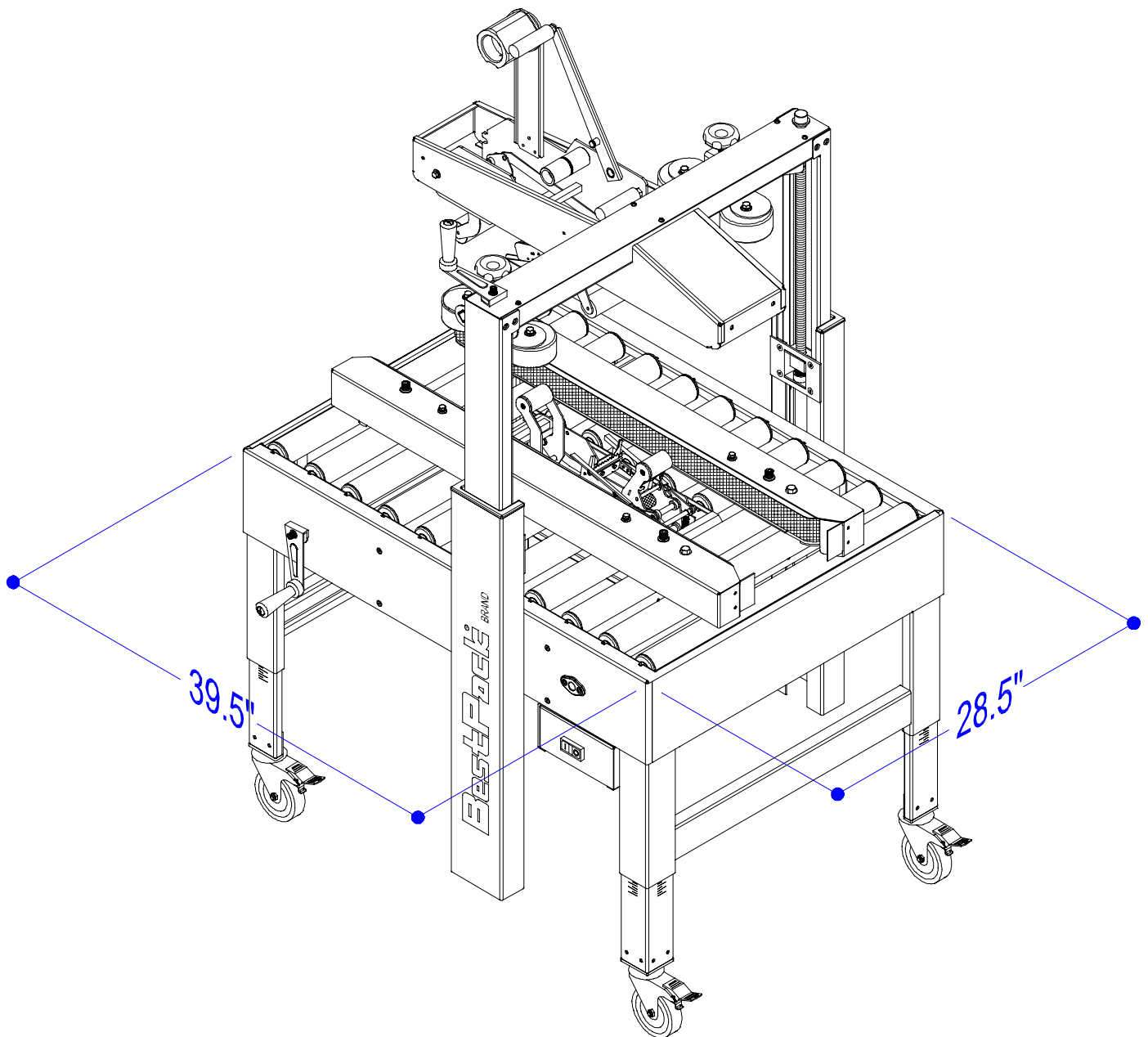
Model	Machine Size	Carton Range	Cartons/Min.	Shipping Weight (lbs.)
MS 20-2 2" TapeHead	39.4" x 28.5" x 35.0"	(6.0"-U) x (4.25"*** - 20.5")	Up to 40	263
MS 20-3 3" TapeHead	39.4" x 28.5" x 35.0"	(6.0"-U) x (5.25"*** - 20.5")	Up to 40	263
MSD 22-2 2" TapeHead	39.4" x 32.8" x 55.5"	(6.0"-U) x (4.25"*** - 20.5") x (3.25"-20.5")	Up to 40	342
MSD 22-3 3" TapeHead	39.4" x 32.8" x 55.5"	(6.0"-U) x (5.25"*** - 20.5") x (3.25"-20.5")	Up to 40	342
MSD 23-2 2" TapeHead	46.3" x 36.0" x 65.5"	(6.0"-U) x (4.25"*** - 20.5") x (3.9"-30.0")	Up to 40	390
MSD 23-3 3" TapeHead	46.3" x 36.0" x 65.5"	(6.0"-U) x (5.25"*** - 20.5") x (3.9"-30.0")	Up to 40	390
MSD32-2 2" TapeHead	39.4" x 43.8" x 55.5"	(6.0"-U) x (4.5"-30.0") x (3.9"-20.5")	Up to 25	550
MSD32-3 3" TapeHead	39.4" x 43.8" x 55.5"	(6.0"-U) x (5.5"-30.0") x (3.9"-20.5")	Up to 25	550

* All specifications capable of customization

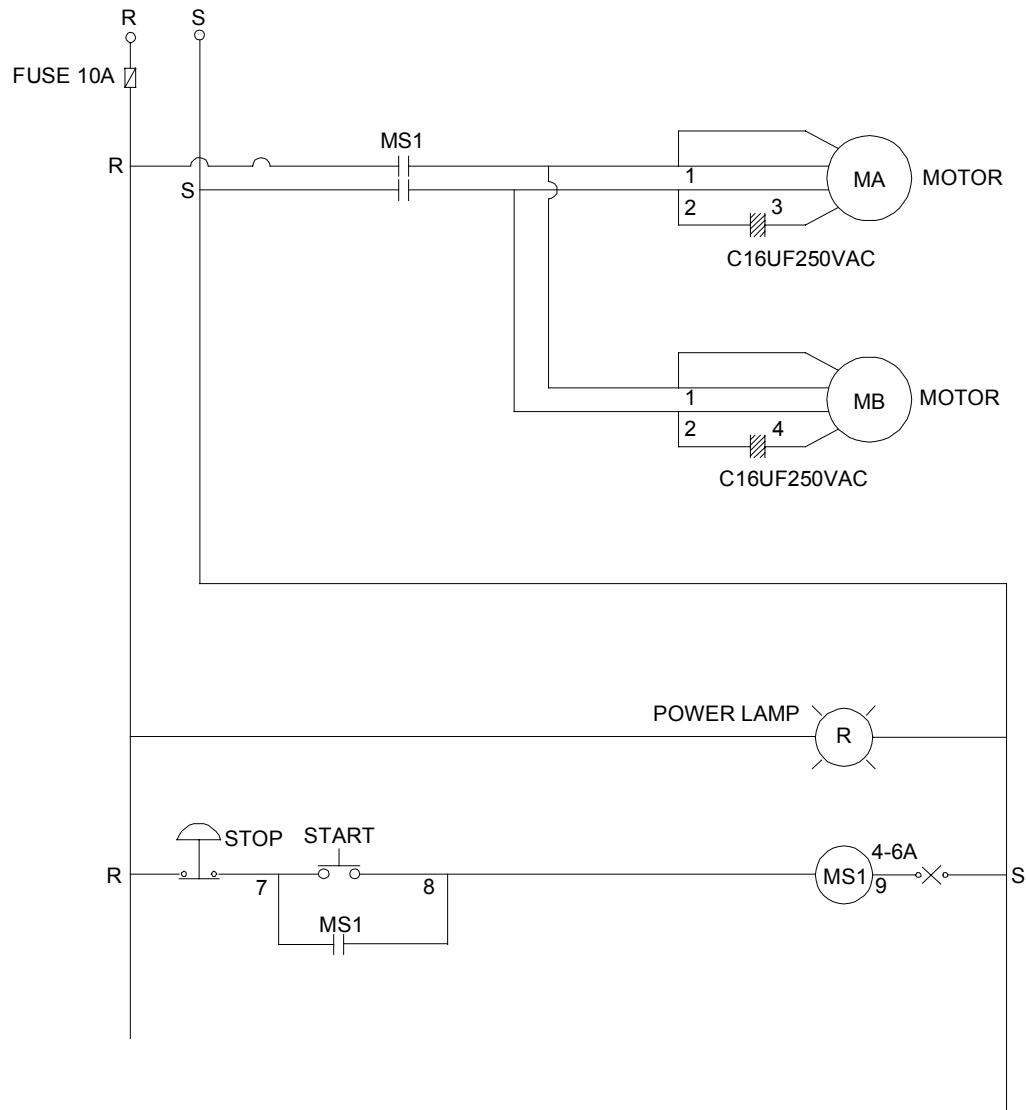
MAJOR COMPONENTS



MACHINE DIMENSIONS



ELECTRICAL DIAGRAM



TERMINAL:

AC110V	1	2	3	1	2	4		R	S
	└──┘			└──┘				└──┘	
	MA			MB				POWER	

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 MSD22 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 conveyor.

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]

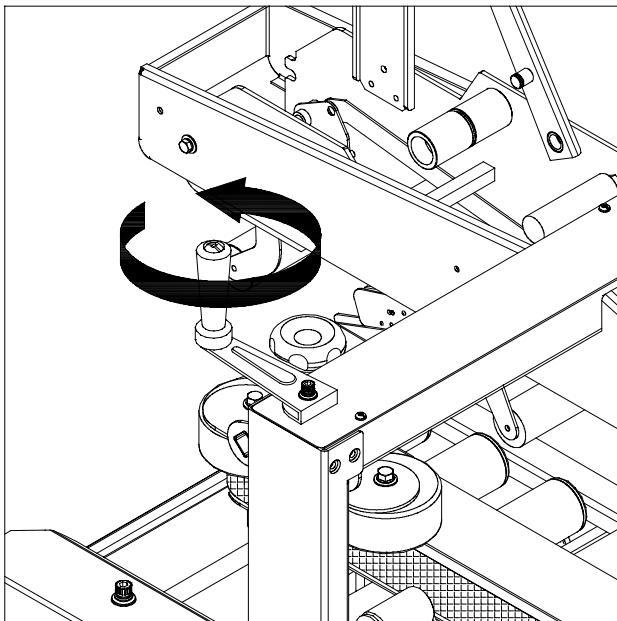


FIGURE 2-1

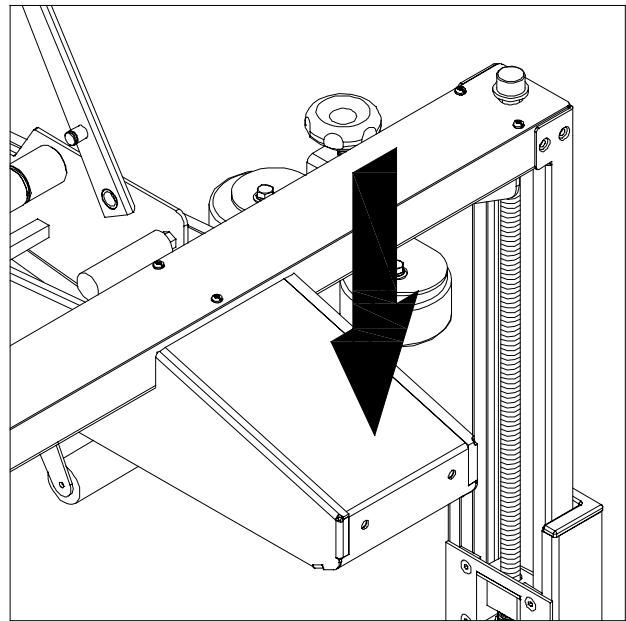


FIGURE 2-2

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.

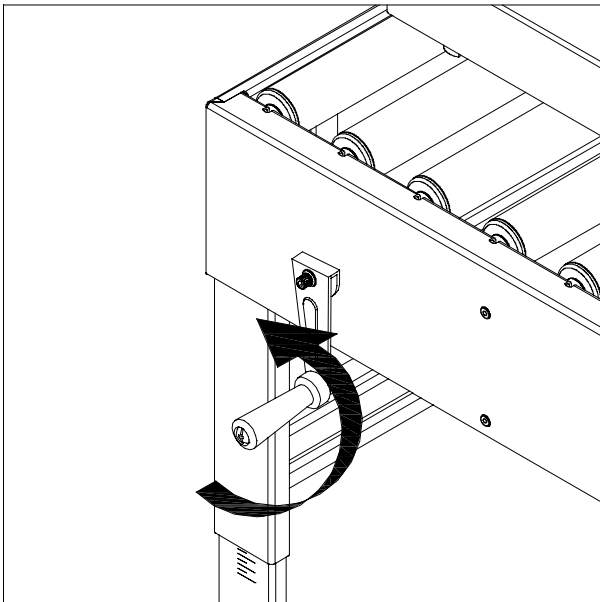


FIGURE 2-3

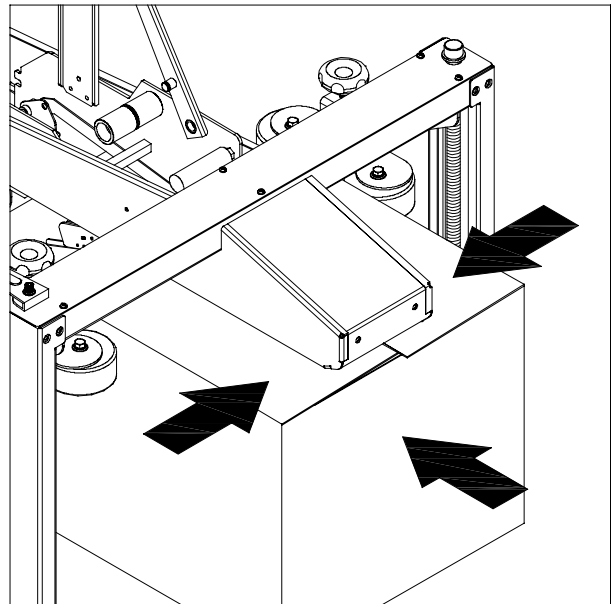
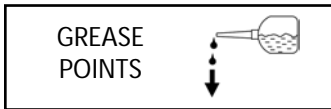


FIGURE 2-4

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

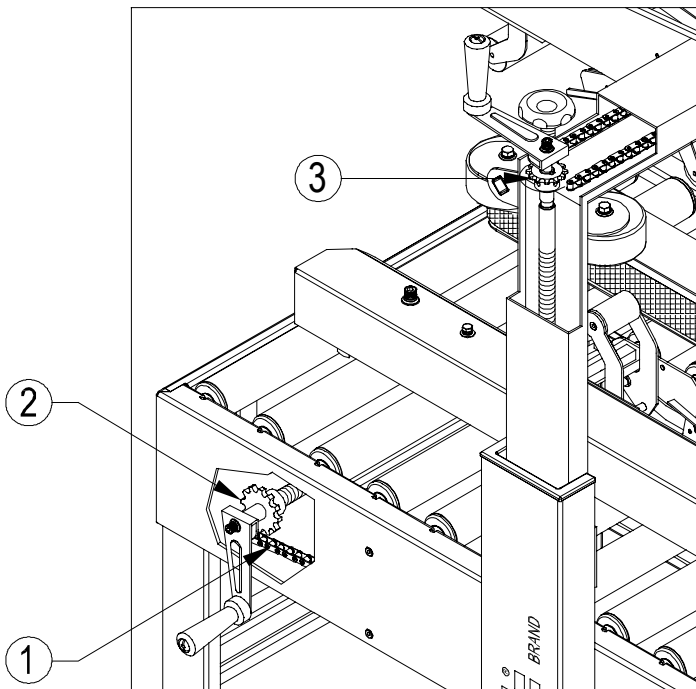


FIGURE 3-1

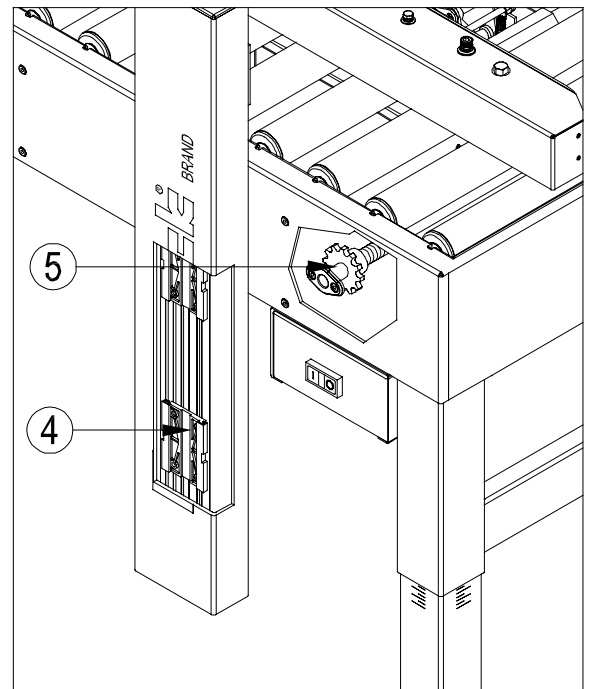


FIGURE 3-2

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. Spindle screw mechanism for height adjustment.
5. Sprocket for spindle screw mechanism for width adjustment.

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

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

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

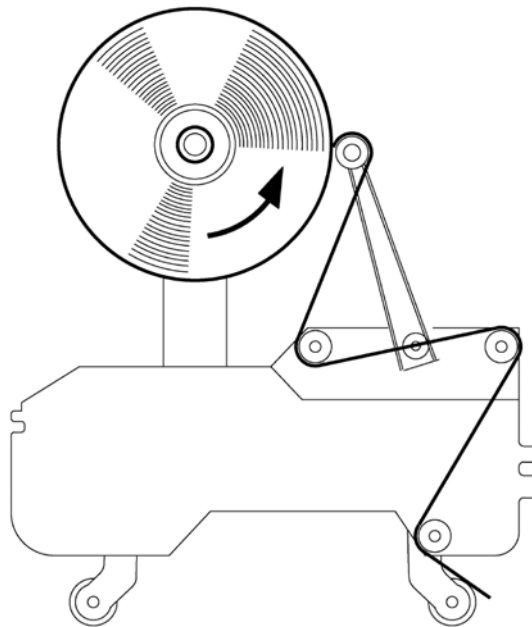
TROUBLESHOOTING (cont'd)

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	900600SBA	BELT, 1850mm x2" 02 BLK
2	27280031	BEARING, BALL 6003ZZ
2	27280091	BEARING, BALL 6202ZZ

Black Tape Head recommended spare parts list

QUANTITY	2" PART NUMBER	3" PART NUMBER	DESCRIPTION
1	AC231300	AC331300	ROLLER, RUBBER FRONT SET
1	AC232000	AC332000	ROLLER, RUBBER REAR SET
1	10122	10122-0	BLADE, CUTTER
1	10096-1	10096-1	SPRING, MAIN TOP GOLD
1	10096-2	10096-2	SPRING, MAIN BOTTOM CHROME
1	AC220501	AC320502	MANDREL
2	10117	10117	BUMPER, RUBBER
2	10116	10116	BUSHING, BUMPER

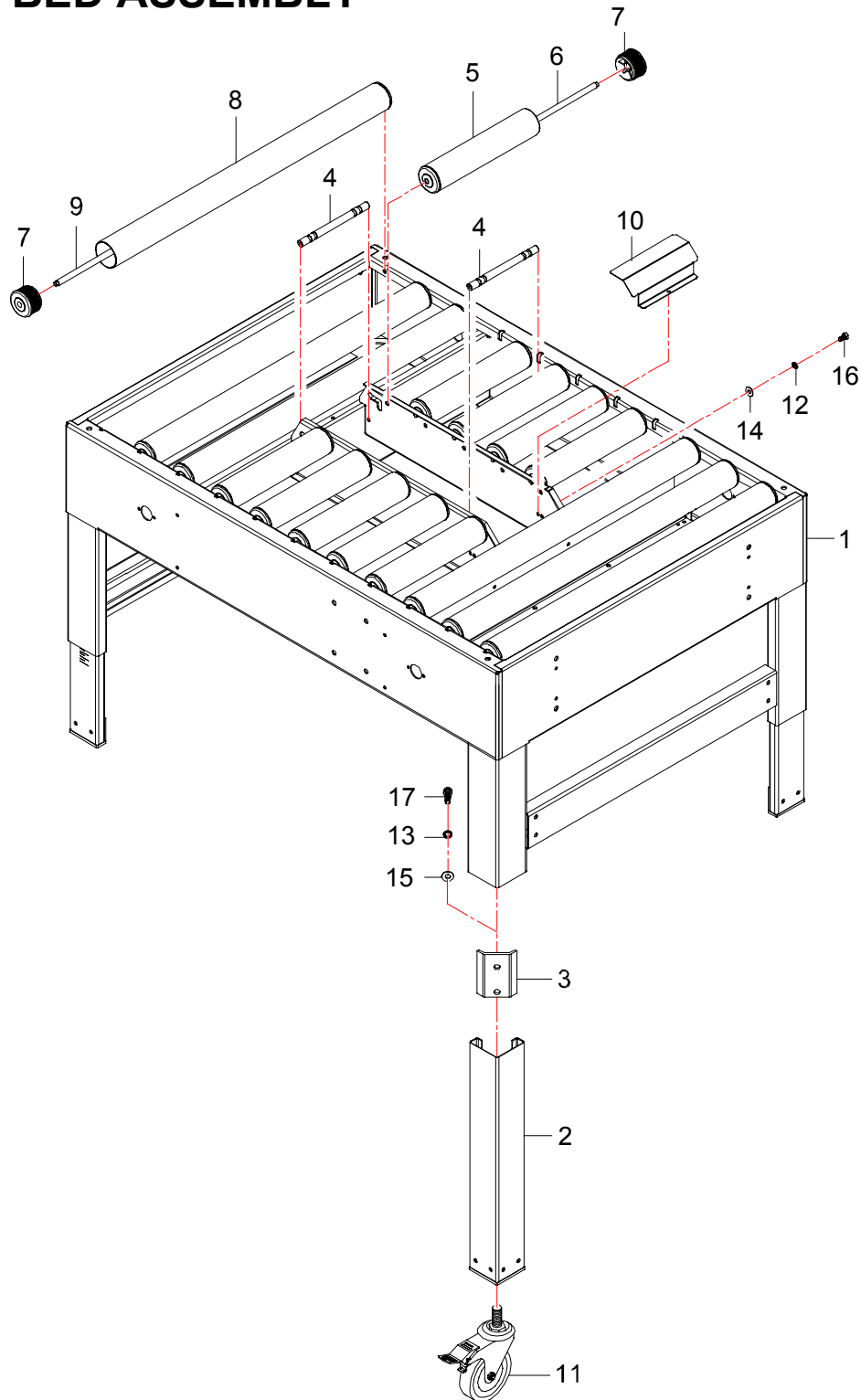
Note: Part Numbers, Descriptions, and Pricing are all subject to change without prior notification. Call for pricing.

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.

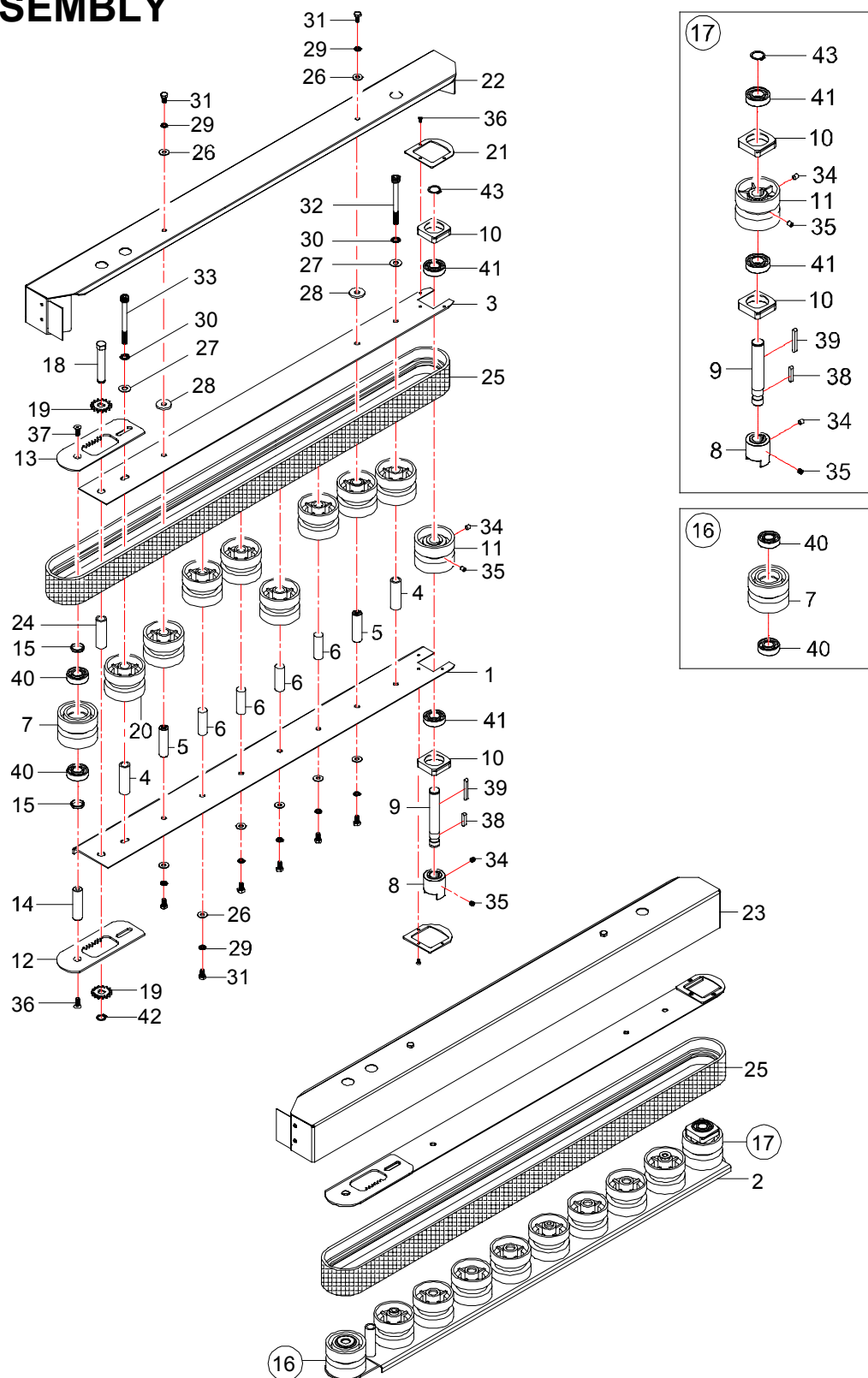
ROLLER BED ASSEMBLY



ROLLER BED PARTS LIST

KEY NO.	PART NO.	QTY	DESCRIPTION
1	C4101A03	1	FRAME, ROLLER BED MSD22
2	C4104000	4	LEG, 18" EXTENSION M65X455
3	12554	4	BRACKET, EXTENSION M85X68X6
4	20008	2	SHAFT, T/HEAD M12X155 (BOLTED)
5	C4130010	10	ROLLER, ALUM M48X230
6	C4130030	10	SHAFT, ROLLER M9.5X255 RND/SLT
7	C4129020	32	BUSHING, ROLLER CAP M45X30
8	C4129010	6	ROLLER, ALUM M48X635
9	C4129030	6	SHAFT, ROLLER M9.5X660 RND/SLT
10	C4121001	1	SKID PLATE, FRONT BOTTOM TAPE
11	2712101	4	CASTER, 4" BP (OPTIONAL)
12	2705202	4	WASHER, SPLIT LOCK M6
13	2705203	8	WASHER, SPLIT LOCK M8
14	2705102	4	WASHER, FLAT M6
15	2705101	8	WASHER, FLAT M8
16	2700026	4	SCREW, HEX HD M6X12
17	2701023	8	SCREW, SOCKET HD M8X20

BELT DRIVE ASSEMBLY



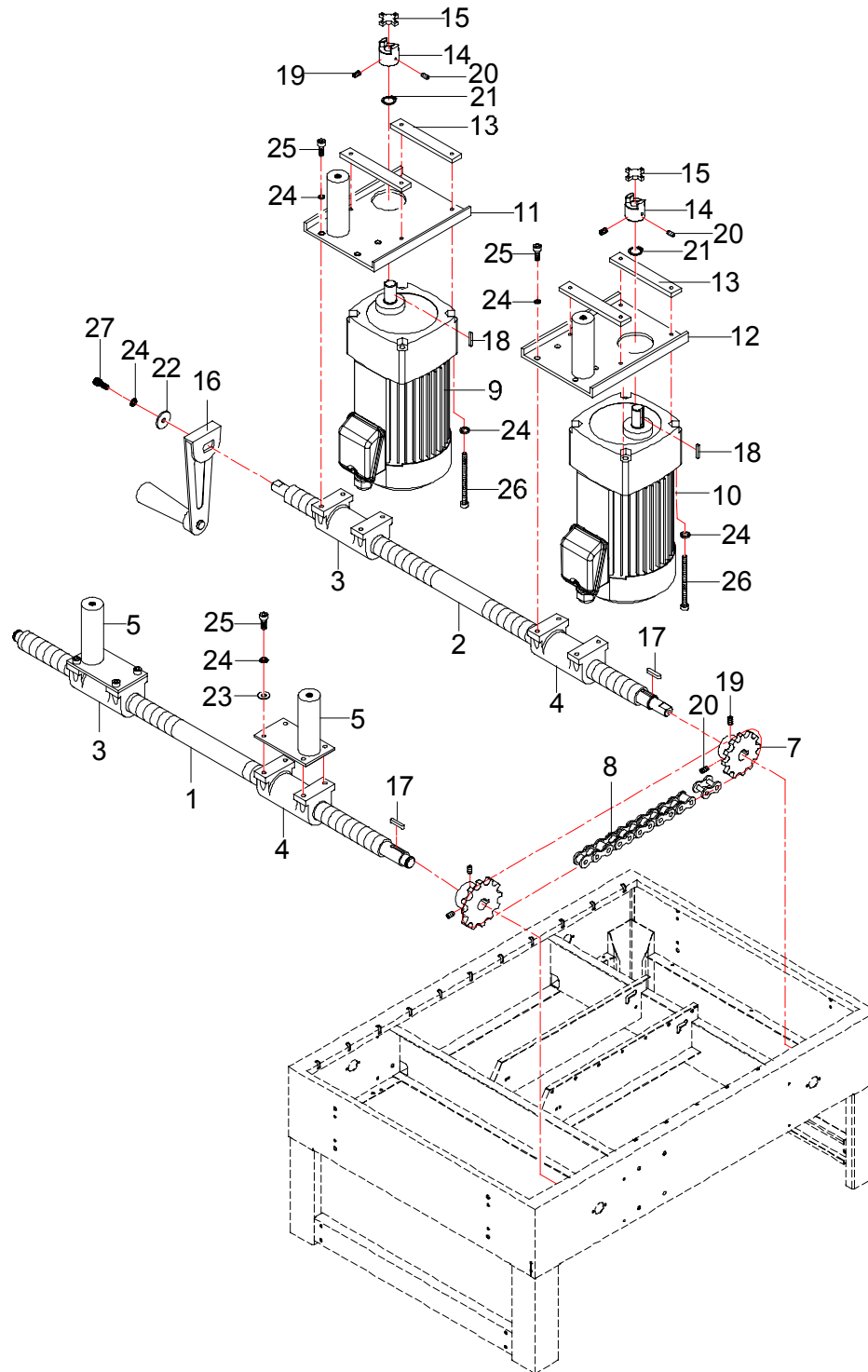
BELT DRIVE PARTS LIST

KEY NO.	PART NO.	QTY	DESCRIPTION
1	C4201003	1	PLATE, FIXED BOTTOM LH
2	C4202003	1	PLATE, FIXED BOTTOM RH
3	C4203003	2	PLATE, FIXED TOP LH&RH
4	14021	4	BUSHING, METAL M15X54
5	C4218000	4	SHAFT, IDLE ROLLER M15X60
6	14005	8	SHAFT, PLASTIC WHEEL M15X47
7	14082	2	PULLEY, ALUM FOLLOWER M65.5X50
8	A1122000	2	COUPLER, DRIVE SBLT M35X39
9	C4213001	2	SHAFT, SIDE DRIVE SBT M17X95.5
10	A1224000	4	BRACKET, BEARING 42X42Xt11
11	C4211000	2	PULLEY, ALUM DRIVER SBLT M65.5
12	C4214000	2	PLATE, BELT TENSION (BOTTOM)
13	C4215000	2	PLATE, BELT TENSION (TOP)
14	C4216001	2	BUSHING, FOLLOWER PULLEY M15
15	C4217001	4	SPACER, FOLLOWER PULLEY M21.7
16	14082A	4	PULLEY, ALUM FOLLOWER ASSEMBLY
17	C4211A00	2	PULLEY, ALUM DRIVER ASSEMBLY
18	C4219001	2	SHAFT, BELT TENSION ADJ M12X75
19	C4221000	4	SPROCKET, 15T BELT ADJ M2X15T
20	14006	16	PULLEY, NYLON M65.5X48
21	C4235000	4	PLATE, SUPPORT MOUNT M62X58
22	C4225A03	1	COVER, BELT LH 942L
23	C4226A03	1	COVER, BELT RH 942L
24	C4222000	2	BUSHING, METAL M17.3X54
25	900600SBA	2	BELT, 1850mm X2" BLACK
26	2705102	16	WASHER, FLAT M6
27	2705101	4	WASHER, FLAT M8
28	2705109	4	WASHER, FLAT M8X25X3t
29	2705202	16	WASHER, SPLIT LOCK M6
30	2705203	4	WASHER, SPLIT LOCK M8

BELT DRIVE PARTS LIST (cont'd)

KEY NO.	PART NO.	QTY	DESCRIPTION
31	2700026	16	SCREW, HEX HD M6X12
32	2701053	2	SCREW, SOCKET HD M8X75
33	27010531	2	SCREW, SOCKET HD CAP M8 X 80
34	2704001	4	SCREW, SOCKET SET M6X6
35	2704002	4	SCREW, SOCKET SET M6X10
36	2702214	12	SCREW, FLAT HD M3X6
37	2702031	4	SCREW, FLAT HD M6X16
38	2709001	2	KEY, M5X5X25
39	2709002	2	KEY, M5X5X40
40	27280091	4	BEARING, BALL 6202ZZ
41	27280031	4	BEARING, BALL 6003ZZ
42	2706002	2	RING, RETAINING M12
43	2706006	2	RING, RETAINING M17

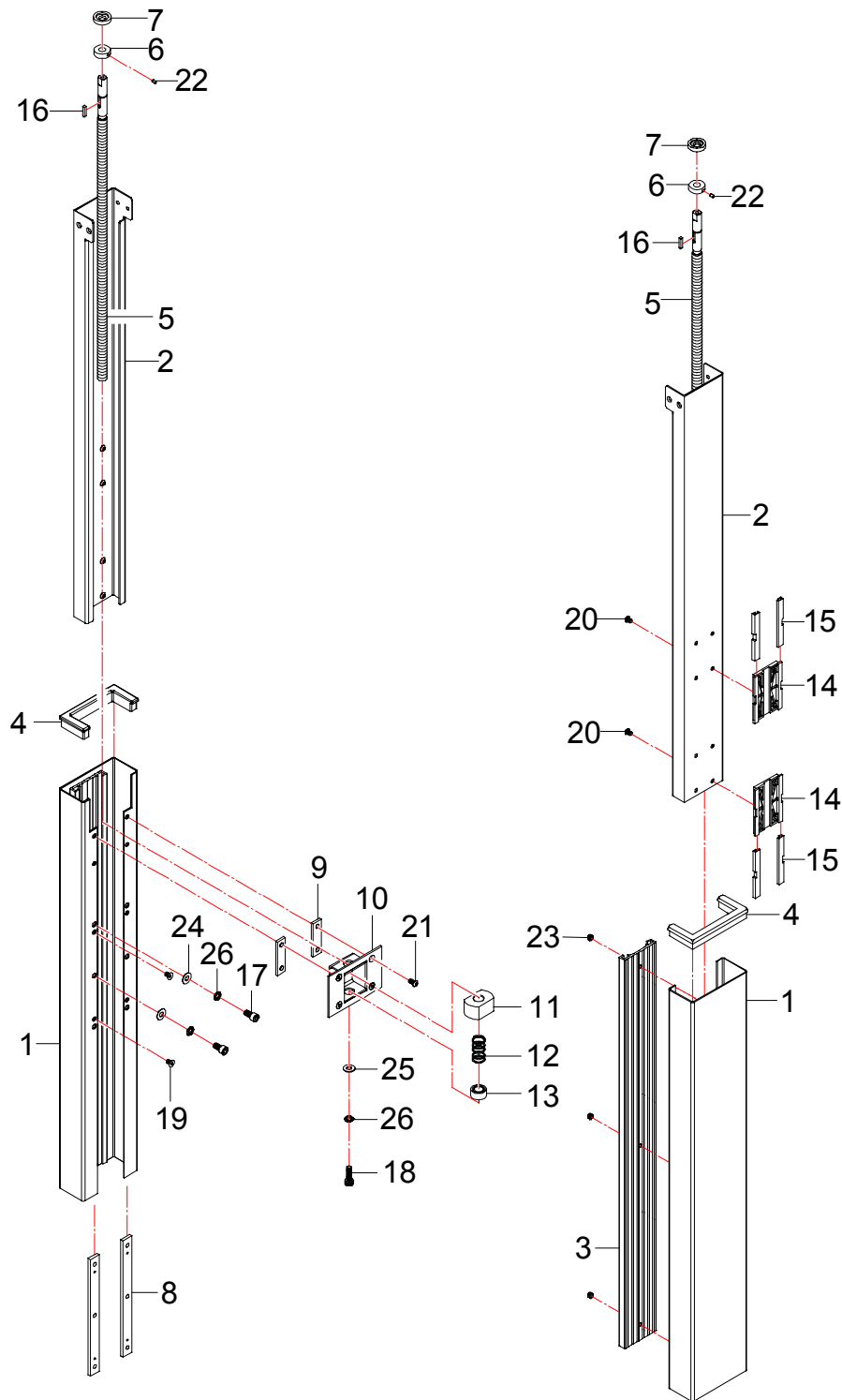
WIDTH DRIVE ASSEMBLY



WIDTH DRIVE PARTS LIST

KEY NO.	PART NO.	QTY	DESCRIPTION
1	C4109000	1	SHAFT, ADJ SCREW M25X732
2	C4110000	1	SHAFT, ADJ SCREW M25X764
3	18006	2	BLOCK, SLIDING TW1-6ACME (RH)
4	C4111000	2	BLOCK, SLIDING TW1-6ACME (LH)
5	A1118000	2	BLOCK, FRONT MOUNT M20
6	C4133000	1	CAP, SCREW SHAFT
7	C4113000	2	SPROCKET, RS32X15TB
8	C4114001	1	CHAIN, RS35X146 LINK CONNECTOR
9	28R117100MB	1	MOTOR, TH 110V 17:1 1/5HP RT
9*	28R110100MB	1	MOTOR, TH 110V 10:1 1/5HP RT (high speed motors)
10	28L117100MB	1	MOTOR, TH 110V 17:1 1/5HP LT
10*	28L110100MB	1	MOTOR, TH 110V 10:1 1/5HP LT (high speed motors)
11	C4119001	1	PLATE, SBLT MOUNT LH
12	C4120001	1	PLATE, SBLT MOUNT RH
13	C8447000	4	PLATE, BRACKET MOUNT 112X16X6
14	A1122000	2	COUPLER, DRIVE SBLT M35X39
15	L070S	2	RUBBER, COUPLER SPACER M35X12
16	A1115000	1	HANDLE, STEEL ARM ASSEMBLY
17	2709008	2	KEY, M5X5X20
18	2709001	2	KEY, M5X5X25
19	2704001	4	SCREW, SOCKET SET M6X6
20	2704002	4	SCREW, SOCKET SET M6X10
21	2706005	2	RING, RETAINING M16
22	2705199	1	WASHER, FLAT FENDER M6.5X25X2
23	2705102	8	WASHER, FLAT M6
24	2705202	25	WASHER, SPLIT LOCK M6
25	2701021	16	SCREW, SOCKET HD M6X20
26	2701028	8	SCREW, SOCKET HD M6X80
27	2701020	1	SCREW, SOCKET HD M6X16

MAST ASSEMBLY

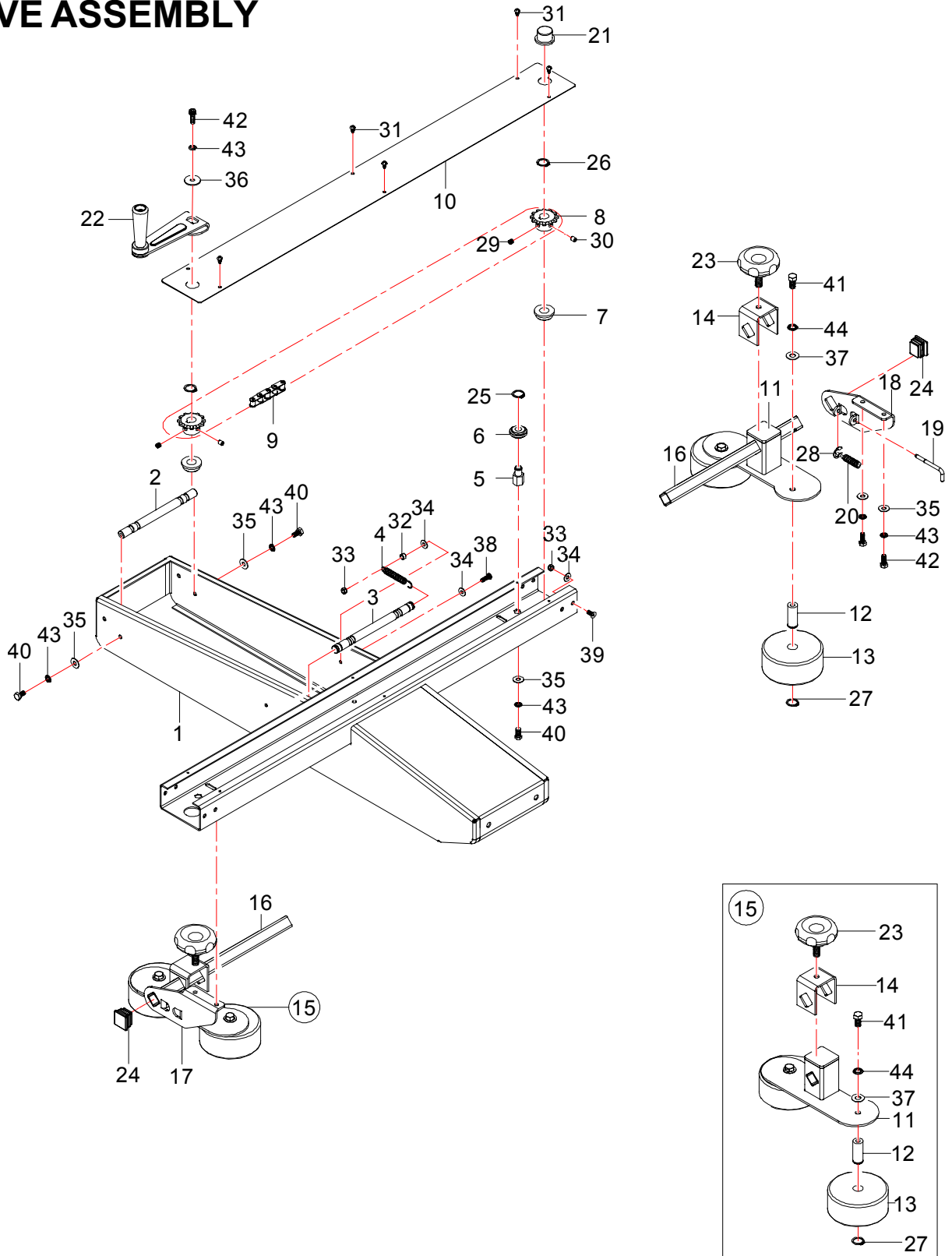


MAST PARTS LIST

BMMAMSD5A

KEY NO.	PART NO.	QTY	DESCRIPTION
1	H4301001	2	MAST, TELESCOPE EXT 780L
2	H4303000	2	MAST, TELESCOPE INT 795L
3	H4310000	2	RAIL, GUIDE MAST TELESCOPE INT
4	18273	2	COVER, RUBBER CAP M125X56X15.5
5	C4306000	2	SHAFT, ADJ HEIGHTSCREW M16
6	18143	2	BUSHING, M32X10
7	18256	2	SPACER, NYLON M8X35
8	53426	4	PLATE, MAST M228X20X5
9	53427	4	PLATE, M20X74X5
10	C4330000	2	PLATE, NYLON BLOCK ASSY.
11	C4304000	2	NUT, NYLON MAST
12	18044	2	SPRING, HEIGHT ADJ
13	18112	2	HOLDER, SPRING
14	C4311000	4	GUIDE, BLOCK TELESCOPE INTR
15	C4312000	8	BLOCK, SUPPORT GUIDE INTR
16	2709000	2	KEY, M5X5X18
17	27010621	8	SCREW, SOCKET HD M8X14
18	2701030	2	SCREW, SOCKET HD M8X16
19	2702200	8	SCREW, FLAT HD M4X8
20	2701204	16	SCREW, SOCKET HD M6X8
21	2701303	8	SCREW, SOCKET HD M6X10
22	2704002	2	SCREW, SOCKET SET M6X10
23	2707101	6	NUT, HEX JAM NYLOCK M5
24	2705101	8	WASHER, FLAT M8
25	2705003	2	WASHER, FLAT M8X2t
26	2705203	10	WASHER, SPLIT LOCK M8

TOP DRIVE ASSEMBLY



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TOP DRIVE PARTS LIST

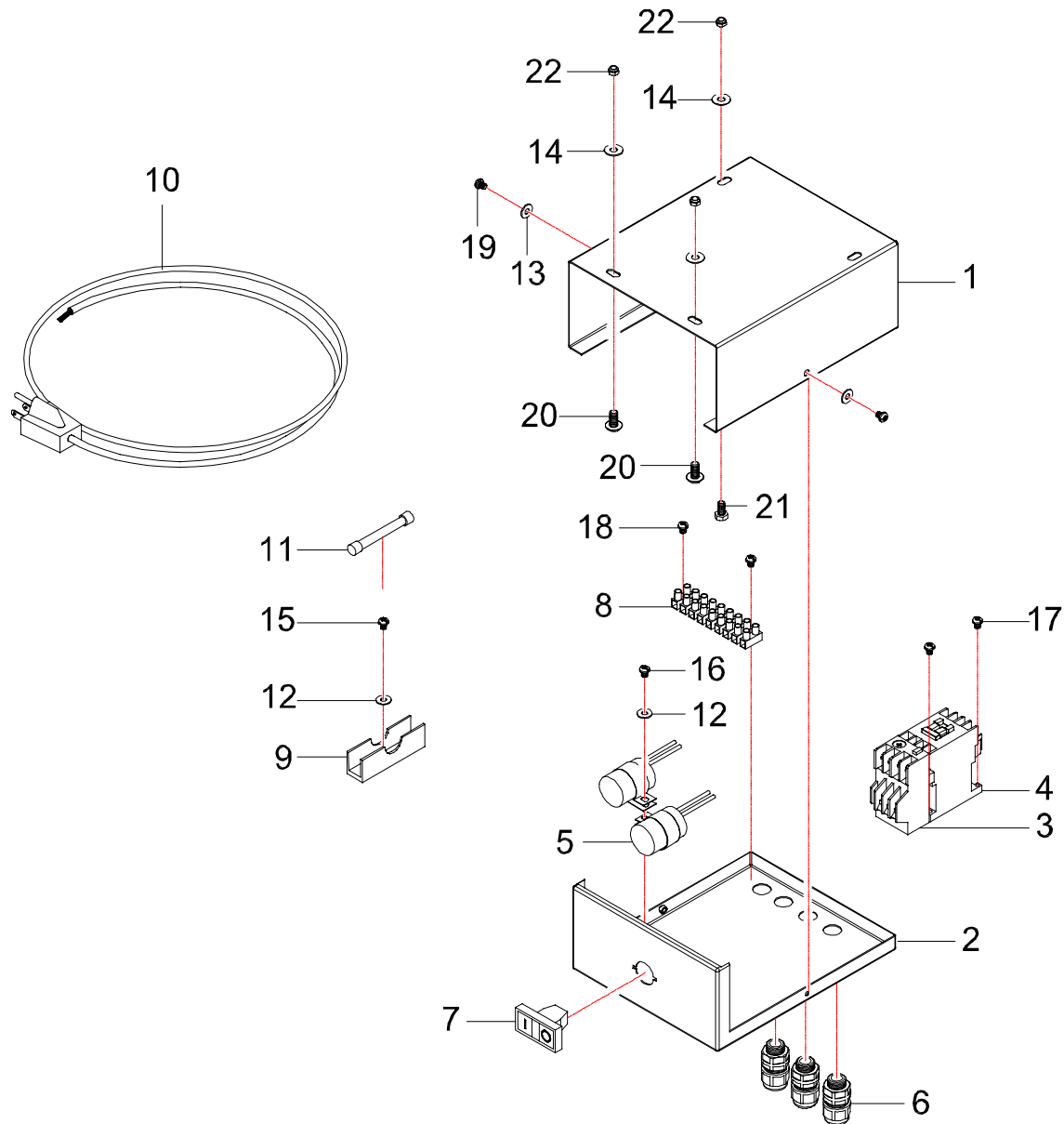
KEY NO.	PART NO.	QTY	DESCRIPTION
1	C4401002	1	FRAME, TOP TAPEHEAD MSD22
2	20008	1	SHAFT, T/HEAD M12X155 (BOLTED)
3	20035	1	SHAFT, T/HEAD M12X163 (SPRING)
4	20009	2	SPRING, T/HEAD M10.2X1.2X62.5
5	18029	1	SPACER, STANDOFF HEX H14X29.5
6	53337	1	ROLLER, CHAIN ADJUSTER M26X10
7	C4316000	2	SPACER, MAST SHAFT M30X10
8	18133	2	SPROCKET, RS35X12T
9	C4438000	1	CHAIN, RS35X168 LINK
10	C4441000	1	PLATE, M794X82Xt1.6
11	C4409000	2	PLATE, TOP COMP ROLLERS (L&R)
12	20437	4	SHAFT, COMPRN ROLLER M15X38
13	20024-1	4	WHEEL, TOP COMPR'N GRAY
14	C4411000	2	BRACKET, TOP COMPRESSION KNOB
15	C4409A00	2	COMPRESSION, ROLLER ASSM. MSD
16	C4417000	2	SHAFT, COMP GUIDE M19X287
17	C4413000	1	BRACKET, SLIDE BAR M150X84 (L)
18	C4414000	1	BRACKET, SLIDE BAR M150X84 (R)
19	C4415000	2	PIN, COMPRESSION GUIDE M5
20	C4416000	2	SPRING, LOCK COMPN GUIDE
21	C4317000	1	CAP, FLANGE NYLON M29
22	A1115000	1	HANDLE, STEEL ARM ASSEMBLY
23	2702101	2	KNOB, LOCKING 3/8-13UNC
24	2740205	2	CAP, COMP GUIDE COVER M18X18
25	2706001	1	RING, RETAINING M10
26	2706007	2	RING, RETAINING M14
27	2706004	4	RING, RETAINING M15
28	2706405	2	CLIP, E-TYPE M4
29	2704001	2	SCREW, SOCKET SET M6X6
30	2704002	2	SCREW, SOCKET SET M6X10

TOP DRIVE PARTS LIST (cont'd)

BMDTMSD5A

KEY NO.	PART NO.	QTY	DESCRIPTION
31	2701699	6	SCREW, PAN HD PHILIP M4X8
32	2707023	2	NUT, HEX M5
33	2707101	10	NUT, HEX JAM NYLOCK M5
34	2705103	12	WASHER, FLAT M5
35	2705102	7	WASHER, FLAT M6
36	2705199	1	WASHER, FLAT FENDER M6.5X25X2
37	2705101	4	WASHER, FLAT M8
38	2703202	2	SCREW, PAN HD PHILIP M5X15
39	2702022	8	SCREW, FLAT PHILIP M5X12
40	2700026	3	SCREW, HEX HD M6X12
41	2700028	4	SCREW, HEX HD M8X16
42	2701020	5	SCREW, SOCKET HD M6X16
43	2705202	8	WASHER, SPLIT LOCK M6
44	2705203	4	WASHER, SPLIT LOCK M8

CONTROL PANEL ASSEMBLY



CONTROL PANEL PARTS LIST

KEY NO.	PART NO.	QTY	DESCRIPTION
1	C4801001	1	BOX, ELECTRICAL SHELL
2	C4802002	1	BOX, ELECTRICAL DRAWER
3	2811190	1	RELAY, THERMAL 4.0-6.0AMPS
4	2810117	1	RELAY, MAGNETIC SC-03-4A 110V
5	2896307-4	2	CAPACITOR, 18UF 250VAC
6	2861020	3	CONNECTOR, STRAIGHT(MG-16A-10B
7	2870185	1	SWITCH, ON/OFF RENY R2PID-W-1
8	2843801	1	TERMINAL, BLOCK PA10F-12
9	2890020	1	HOLDER, FUSE TFB101
10	2882401	1	CORD, ELECTL W/ PLUG 1.25 3M
11	2890043	1	FUSE, GLASS 10AMP 30mm
12	2705006	2	WASHER, FLAT M4
13	2705103	2	WASHER, FLAT M5
14	2705102	3	WASHER, FLAT M6
15	2703203	1	SCREW, OVAL HD PHILIP M4X8
16	2703225	1	SCREW, OVAL HD PHILIP M4X10
17	2703206	2	SCREW, OVAL HD PHILIP M4X12
18	2703200	2	SCREW, OVAL HD PHILIP M4X15
19	2703207	2	SCREW, OVAL HD PHILIP M5X6
20	2701501	2	SCREW, OVAL HD M6X12
21	2700026	1	SCREW, HEX HD M6X12
22	2707102	3	NUT, HEX JAM NYLOCK M6

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

Patsy Miller
Customer Service
(909) 987-4258 ext. 120
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*