

VASSOYO 4000A SN 11161

MECHANICAL TRAY ERECTOR

OPERATION AND MAINTENANCE

MANUAL

4760 NW 128th St. Miami, Florida 33054

Ph: 305-622-4070 Fax: 305-688-7772 www.eaglepm.com

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INSTALLATION

Unpacking

- 1. Remove shipping container
- 2. Remove any ties, blocks or pads fastened on the machine.
- 3. Move machine to the designated are and reassembled parts that may have been removed for shipping.

Air connection

- 1. Connect up a flexible airline of suitable size with Manual shut-off valve to the main air inlet.
- 2. Your machine requires that air supply of 0.5 scfm per cycle. So a machine running at 22 cases per minute requires an air compressor that will supply 11 scfm at sea level.
- 3. The regulator data are on your machine should be set at 80psi.

Power connection

- 1. Electrical connections to machine should be done by a certified electrician and electrical service should be designed to the electrical requirements of you machine.
- 2. Copy of electrical schematic can be found in the control panel of your machine and in the back of this manual.

NOTE: when the above installation is completed, you rural the ready for our service and to complete the installation of your machine.

Attached to the front wall of your glue applicator, you will find a tag specifying the type of glue used and testing your machine. If the glue you are using is not compatible with glue used in testing you must flash that glue from this system. Please refer to the glue manual supplied with your system for procedure and Flushing you're unit.

SAFETY

It is the Employers responsibility to provide adequate supervision to determine that safe work methods are uses. It is also the responsibility of the employer to establish and follow a periodic and regular inspection of this machine to ensure that all parts, auxiliary equipment, and safe guards are in a safe operating condition and adjustment.

SAFETY SYMBOLS

The following are used to warn against dangers of possible sources of danger. Become familiar with them! Failure to heed a warning could lead to personal injury and/of damage to the machinery or other equipment.



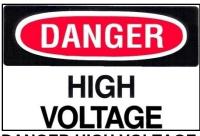
CAUTION KEEP HANDS CLEAR: This sign indicates the presence of moving machinery and you should keep hands clear of these parts when machine is running.



DANGER DO NOT OPEN WHILE MACHINE IS IN OPERATION: This sign indicates that any access door should remain close while machine is in operation.



DANGER DO NOT OPERATE WITHOUT GUARDS: Indicates that all guards supplied with this machine should remain attached to machine and closed. All electric interlocks to door should remain in place and functioning. Any attempt to disable these switches could cause harm to operators and personnel involved with the operation of the equipment.



DANGER HIGH VOLTAGE: This sign indicates the presence of high voltage and all caution should be made when working in these areas. Turn off all electrical disconnects when working on the machine.



DANGER OPEN MACHINERY: These warning are located around the machine to worn operators and personnel that you are working in an area of the machine with working components. When this sign is viewed the machine should be turned off and power disconnected.



DANGER STARTS AUTOMATICALLY: This warring is located around the machine in areas where the machine maybe in Auto Idle. If the machine is on and running it will automatically start running when the discharge is clear of product. It is advised that you remain clear of these areas when the machine is in operation.

REMEMBER:

WHEN WORKING ON MACHINE TURN THE POWER OFF, FOR YOUR SAFETY AND THOSE AROUND YOU.

BEFORE STARTING THE MACHINE BE SURE TO YELL IN A LOUD MANNER, "POWER ON", AND BE SURE PERSONNEL ARE CLEAR OF THE MACHINE BEFORE STARTING.

GENERAL SAFETY INFORMATION

This machine has been guarded for the safety of all personnel that are involved with the production process through the machine. When operating this equipment, all guard must be in place. Guards, safety switches, and interlocks should not be bypassed for any reason. Any change or modification to the safety equipment of this machine may produce a hazardous condition that could cause injury to persons working with the machine.

WARNING: DISCONNECTING OR BYPASSING THIS MACHINES SAFETY EQUIPMENT WILL VOID THE MANUFACTURERS WARRANTY.

SAFETY RULES:

- 1. No one should operate this equipment unless they have read the service manual and have been instructed on safety and operation of the machine.
- 2. All guard must be in their proper place before starting machine.
- 3. The operator should look to insure that the machine is clear before start-up, and call a warning, "CLEAR", to alert other personnel that the machine is being started.
- 4. Do not reach into the machine until it has come to a complete stop.
- 5. Activate an **EMERGENCY STOP** prior to clearing jams and reaching into the machine.
- 6. Turn the main power disconnect **OFF** and attach a padlock to assure that the power to the machine remains **OFF** when performing maintenance on the machine.
- 7. Wear safety glasses and gloves when working on or around pressurized glue system.
- 8. Do not wear loose clothing or jewelry when operating this machine.
- 9. Personnel should stay clear of machines with **AUTO-IDLER**, **auto start function**, to avoid possible injury.
- 10. Personnel should be familiar with the location and function of the **EMERGENCY STOP SWITCH** on the machine.
- 11. Electrical cabinets and boxes should not be opened unless power has been disconnected.

MACHINE ORIENTATION

This section of the manual is intended to help those who may not be familiar with packaging machine terminology. All the parts mentioned can be found on the assembly drawing located in the back of this manual.

HOPPER SECTION

When standing facing the control panel of the machine you will see four aluminum bars protruding from the machine. These are the vertical hopper guides of the hopper. Here is where the knock down blanks are stacked for running through the machine.

BLANK PULL-DOWN

This is the mechanism that extracts one blank from the bottom of the blank hopper.

RAM ASSEMBLY

Section of the machine that forces the blank through the forming plows that fold the flaps into the blank and forming the finished tray.

FOLDING SECTION

This is the area of the machine where all the flaps are folded into the tray.

DISCHARGE

This is the area where the finished case will be ejected from the rear of the machine.

SEQUENCE OF OPERATION

- 1. Blank are loaded onto the waterfall hopper conveyor. Blanks are then fed into the blank hopper automatically keeping the hopper filled with blanks.
- 2. One blank will be extracted from the bottom of the blank hopper and pulled down onto the guide rails that support the blank. The blank will then be pushed into the drive rollers of the top dive assembly.
- 3. As the blank moves through the drive rollers glue is applied to all the appropriate flaps. The blank is then pushed forward and located under the ram assembly.
- 4. With the blank in place the ram mandrel will descend down forcing the blank through the folding section of the machine. Here the minor flaps are folded into the blank and around the mandrel. At the same time the lid lifter is pushed up with the lid lifter.
- 5. The blank is pushed out of the forming section by the ejector cylinders and dropped onto the discharge conveyor.
- 6. The finished tray will then travel to the end of the discharge conveyor. When the blank reaches the end it will be indexed onto the next conveyor.

STARTING THE MACHINE



NOTE: Your machine can be set up to run in two different modes of operation. **RUN MANUAL**, **and RUN AUTO**. Running in manual mode the machine will continue to run uninterrupted until the operator manually stops the machine. Running in Auto mode will activate the auto idler photo cell at discharge of the machine. When a tray is seen by the eye for a continuous length of time the vacuum on the blank feed will turn off. This will stop blanks from being fed into the machine until the photo eye is cleared.

RUNNING THE MACHINE:

- 1. TURN ON GLUE UNIT AND ALLOW GLUE TO REACH OPERATING TEMPERATURE. Glue will not dispense until ready light on glue unit is on.
- 2. Switch the **Power** button to **ON**, located on the front of control panel, be sure that all the **Emergency Stop Buttons** are pulled out. Note: the **Power Switch** should be turned to the off position when machine is shut down at the end of shift or when the machine will be shut down for a long period of time.
- 3. Make sure hopper is loaded with blanks.
- 4. Press the **START** pushbutton to activate the main control relay.
- 5. Press the **FEED ON/OFF** button (on Operation Screen).
- 6. Turn the **GLUE ON/OFF** to the **ON** position
- 7. Press the **AUTO MODE** OR **MANUAL MODE** button on touch screen.
- 8. Press the **START** button, the machine will start and begin running blanks.

STOPPING THE MACHINE

NOTE: THERE ARE 2 DIFFERENT WAYS OF STOPPING THE MACHINE

By pushing the **STOP** button on touch screen, the machine will continue through a preset number of cycles to complete the product in process and then will stop completely. By pushing the **FEED ON/OFF** button the machine will stop feeding blanks but the machine will continue moving.

The **EMERGENCY STOP** should only be used to stop the machine in an emergence situation. By pressing this button the machine will stop in the middle of a cycle and will not complete the intended operations. Tray will have to be removed from the machine.

OPERATOR INTERFACE

The Operator Interface allows the user to perform machine functions and setup User Parameters to modify operation.

User Parameters are password protected.

1. SPLASH SCREEN



The Splash Screen is displayed on system start.

2. OPERATION SCREEN



The OPERATION SCREEN allows the operation of machine functions.

The top menu bar is common to many of the screens and allows the user to navigate to the OPERATION, CHANGE OVER, BATCH, TOOLS and SETTINGS screens.

The START button starts machine cycle. An audible alert is invoked prior to machine motion.

The STOP button stops the machine cycle after completing the product that is in progress.

The JOG FW and JOG REV button are used to jog the main drive to aid in the removal of a product jam.

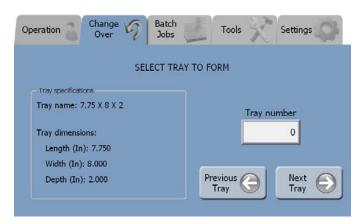
The MANUAL MODE/ AUTO MODE button is used to set the machine in manual or automatic mode. In Manual Mode, the Auto Idle sensor at the exit of the machine is ignored. The machine continues producing boxes even if cases are blocking the exit of the machine. If this button is pressed, the AUTO MODE is engaged. In this mode, the machine will stop cycling when the Auto Idle sensor at the exit of machine is blocked for a preset time. This prevents the machine from producing boxes into a blocked exit.

The FEED OFF/FEED ON button is used to turn OFF/ON the Blank Feed. If a cycle is in progress when this button is pressed, the machine will complete the cycle.

The GLUE OFF/GLUE ON button is used to turn OFF/ON the Glue Guns.

3. CHANGE OVER SCREEN

Enter this screen by pressing the CHANGE OVER tab on the Menu bar.



This screen allows selecting the tray to form and should be used after every change over. The Tray Number determines the operational settings of the machine for different case sizes. It is possible to modify the tray number by pressing the input box or using the Next Tray and Previous Tray buttons. To change the tray number, the machine must be stopped, since is not possible to change the tray size while the machine is running.

4. BATCH JOBS SCREEN

Enter this screen by pressing the BATCH JOBS tab on the Menu bar.



Before and after perform a batch job, is recommended to remove all the remaining boxes in the machine and put them with the rest of the product.

The BATCH PRESET field displays and allows entry of the desired preset count of products to be completed. Once the machine is started, this value cannot be modified unless COUNT RESET button is pressed. Entering a quantity of zero will run the machine cycles continuously until the STOP button is pressed.

The ACTUAL COUNT field displays the number of products currently completed. When COUNT RESET button is pressed, this value is set to zero.

The START button starts machine cycle. An audible alert is invoked prior to machine motion.

The STOP button stops the machine cycle after completing the product that is in progress.

The MANUAL MODE/ AUTO MODE button is used to set the machine in manual or automatic mode. In Manual Mode the Auto Idle sensor at the exit of the machine is ignored. The machine continues producing boxes even if cases are blocking the exit of the machine. If this button is pressed, the AUTO MODE is engaged. In this mode, the machine will stop cycling when the Auto Idle sensor at the exit of machine is blocked for a preset time. This prevents the machine from producing boxes into a blocked exit.

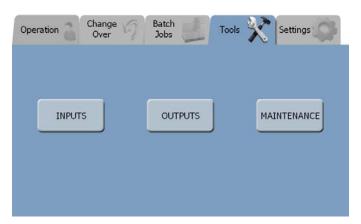
The FEED OFF/FEED ON button is used to turn OFF/ON the Blank Feed. If a cycle is in progress when this button is pressed, the machine will complete the cycle.

The GLUE OFF/GLUE ON button is used to turn OFF/ON the Glue Guns.

When the ACTUAL COUNT equals the BATCH PRESET the machine will automatically stop and a Batch Count complete message will be displayed. The RESET COUNT button will zero the Actual Count quantity and a new Batch is allowed to start.

5. TOOLS SCREEN

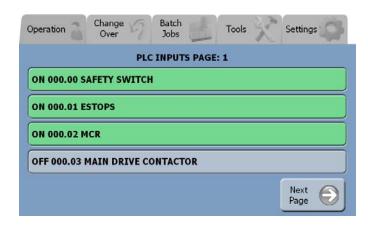
Enter this screen by pressing the TOOLS tab on the Menu bar.



This screen is very useful to diagnose the machine. The INPUTS and OUTPUTS button switches to the inputs and outputs screen respectively where all PLC inputs and output status are displayed. The MAINTENANCE button allows entry to the maintenance screen for troubleshooting purposes.

6. INPUTS SCREEN

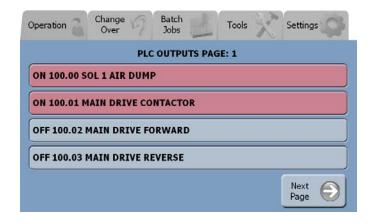
Enter this screen by pressing the TOOLS tab on the Menu bar and then press the INPUTS button.



The INPUTS SCREENS display the status of the PLC inputs.

7. OUTPUTS SCREEN

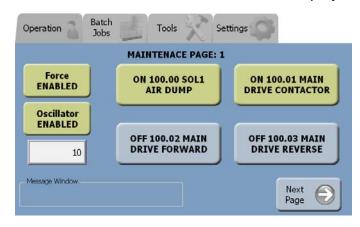
Enter this screen by pressing the TOOLS tab on the Menu bar and then press the OUTPUTS button.



The OUTPUTS SCREENS display the status of the PLC outputs.

8. MAINTENANCE SCREEN

Enter this screen by pressing the TOOLS tab on the Menu bar and then the MAINTENANCE button. When the MAINTENANCE button is pressed the Password screen is displayed. Once the correct password is entered the MAINTENANCE screen is displayed.



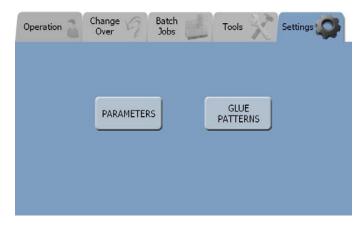
This screen allows authorized personnel to force machine outputs independently for troubleshooting purposes only. Use caution when using these functions all machine sequencing is bypassed.

To activate an output, the Force button must be ENABLED, then is possible to turn ON and OFF an output by pressing its respective button. The oscillator button allows turning ON/OFF an output automatically using a desired speed. All the outputs turned ON before activating the Oscillator will remain ON, only those outputs activated after activating the Oscillator will turn ON and OFF automatically.

Caution: Use extreme caution when using this machine mode.

9. SETTINGS SCREEN

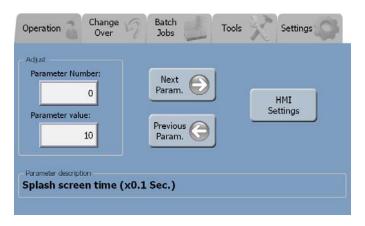
When the SETTINGS tab on the menu bar is pressed the Password screen is displayed. Once the correct password is entered the SETTINGS screen is displayed.



The SETTINGS button allows entry to the PARAMETERS and GLUE PATTERN screens.

10. PARAMETER SCREEN

Enter this screen by pressing the SETTINGS tab on the Menu bar, enter the correct password and then press the PARAMETER button on the SETTINGS screen.



The User Parameter screen is used to setup machine parameters. This screen is password protected.

Use the arrows to change the PARAMETER NUMBER field or press the corresponding input box. Press the PARAMETER VALUE input box and enter the new value. Press the ENTER key to save the new value.

The HMI Settings allow access to the HMI settings like backlight intensity and others.

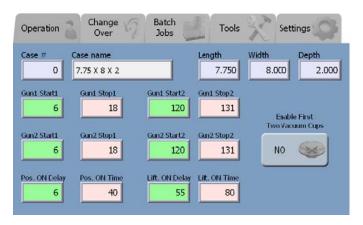
11. PARAMETER VALUES

P. No.	Description	Default Config.	Custom Set 1	Custom Set 2 Date:
0	SPLASH SCREEN TIME (x0.1SEC)	50		
1	MACHINE RUN DELAY TIME (x0.1SEC)	30		
2	MACHINE JOG DELAY TIME (x0.1SEC)	30		
3	JOG MODE DEACTIVATION TIME (x0.1SEC)	40		
4	AUTO IDLER ON DELAY (x0.1SEC)	15		
5	AUTO IDLER OFF DELAY (x0.1SEC)	5		
6	MACHINE SLEEP DELAY TIME (x0.1SEC)	600		
7	BUZZER TIME OUT (x0.1SEC)	100		
8	LOW HOPPER TIME (x0.1SEC)	20		
9	MACHINE START CYCLES	2		
10	MACHINE STOP CYCLES	2		
11	BLANK PULL DOWN RETRIES	3		
12	MAIN DRIVE START DELAY (x0.1SEC)	5		
13	MAIN DRIVE STOP DELAY (x0.1SEC)	19		
14	ROLLERS DRIVE START DELAY (x0.1SEC)	0		
15	ROLLERS DRIVE STOP DELAY (x0.1SEC)	10		
16	DELIVERY CONVEYOR START DELAY (x0.1SEC)	45		
17	DELIVERY CONVEYOR STOP DELAY (x0.1SEC)	50		
18	VACUUM ON DELAY (x0.01SEC)	0		
19	VACUUM OFF DELAY (x0.01SEC)	100		
20	EJECTOR ON DELAY (x0.01SEC)	60		
21	EJECTOR OFF DELAY (x0.01SEC)	50		
22	INDEXER DOWN DELAY (x0.1SEC)	4		
	INDEXER HOME DELAY (x0.1SEC)	24		
24	INDEXER MACHINE STOP HOME DELAY (x0.1SEC)	120		
25	JAM AT GLUE PE ALARM DELAY (x0.1SEC)	10		
26	BLANK DETECTION SYSTEM (0 = OFF, 1 = ON)	1		
27	MAIN DRIVE SPEED (1-100%)	80		
28	ROLLER DRIVE SPEED (1-100%)	50		

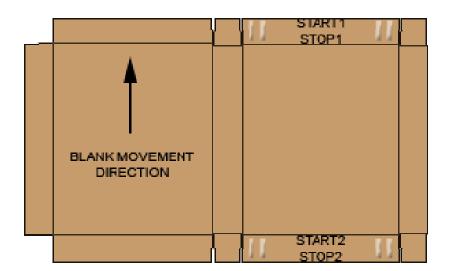
12. GLUE PATTERNS SCREEN

Access this screen by pressing the SETTINGS tab on the Menu bar, enter the correct password and then press the GLUE PATTERN button on the SETTINGS screen.

The first step working in this screen is enter the CASE # in the top left of the window, all the values of the screen are updated to this value.



Here is possible to configure the forming section for every kind of tray that will be erected in the machine. Each glue gun has two adjustable start and stop, creating two glue strips. This glue strips must be located in the lid. The glue pattern timing is adjusted in milliseconds. The positioners and lid lifter are adjusted in hundredth of seconds.



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13. GLUE PATTERNS VALUES

Case #:	Case name:	Length:	Width:	Depth:
0	7.75 x 8 x 2	7.75	8.0	2.0

Description	Default Config.	Custom Set 1	Custom Set 2
	Comig.	Date:	Date:
Gun 1 Start 1	101		
Gun 1 Stop 1	113		
Gun 1 Start 2	289		
Gun 1 Stop 2	299		
Gun 2 Start 1	101		
Gun 2 Stop 1	113		
Gun 2 Start 2	289		
Gun 2 Stop 2	299		
Pos. ON delay	60		
Pos. OFF delay	120		
Lift. ON delay	120		
Lift. OFF delay	80		

Case #:	Case name:	Length:	Width:	Depth:
1	13.5 x 11.25 x 2	13.5	11.25	2.0

Description	Default Config.	Custom Set 1	Custom Set 2
	Coming.	Date:	Date:
Gun 1 Start 1	107		
Gun 1 Stop 1	121		
Gun 1 Start 2	400		
Gun 1 Stop 2	414		
Gun 2 Start 1	107		
Gun 2 Stop 1	121		
Gun 2 Start 2	404		
Gun 2 Stop 2	416		
Pos. ON delay	65		
Pos. OFF delay	120		
Lift. ON delay	121		
Lift. OFF delay	80		

Case #:	Case name:	Length:	Width:	Depth:
2				_

Description	Default Config.	Custom Set 1	Custom Set 2
	ooning.	Date:	Date:
Gun 1 Start 1			
Gun 1 Stop 1			
Gun 1 Start 2			
Gun 1 Stop 2			
Gun 2 Start 1			
Gun 2 Stop 1			
Gun 2 Start 2			
Gun 2 Stop 2			
Pos. ON delay			
Pos. OFF delay			
Lift. ON delay			
Lift. OFF delay			

Case #:	Case name:	Length:	Width:	Depth:
3		_		-

Description	Default Config.	Custom Set 1	Custom Set 2
		Date:	Date:
Gun 1 Start 1			
Gun 1 Stop 1			
Gun 1 Start 2			
Gun 1 Stop 2			
Gun 2 Start 1			
Gun 2 Stop 1			
Gun 2 Start 2			
Gun 2 Stop 2			
Pos. ON delay			
Pos. OFF delay			
Lift. ON delay			
Lift. OFF delay			

Case #:	Case name:	Length:	Width:	Depth:
4				

Description	Default Config.	Custom Set 1	Custom Set 2
	ooning.	Date:	Date:
Gun 1 Start 1			
Gun 1 Stop 1			
Gun 1 Start 2			
Gun 1 Stop 2			
Gun 2 Start 1			
Gun 2 Stop 1			
Gun 2 Start 2			
Gun 2 Stop 2			
Pos. ON delay			
Pos. OFF delay			
Lift. ON delay			
Lift. OFF delay			

Case #:	Case name:	Length:	Width:	Depth:
5				

Description	Default Config.	Custom Set 1	Custom Set 2
	oomig.	Date:	Date:
Gun 1 Start 1			
Gun 1 Stop 1			
Gun 1 Start 2			
Gun 1 Stop 2			
Gun 2 Start 1			
Gun 2 Stop 1			
Gun 2 Start 2			
Gun 2 Stop 2			
Pos. ON delay			
Pos. OFF delay			
Lift. ON delay			
Lift. OFF delay			

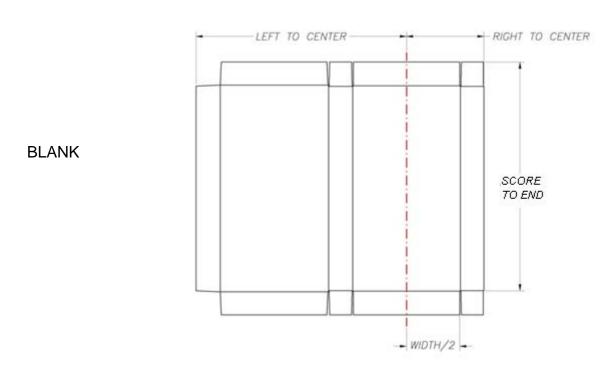
CHANGE OVER RIGHT RAIL POSITIONER REMOVABLE **ADJUSTMENT ADJUSMENT** MANDREL RAM ADJUSTING **SCREW** 24.250 **CENTER LINE** REAR BLANK **STOPS** FORMING SECTION LEFT RAIL **ADJUSMENT ADJUSMENT**

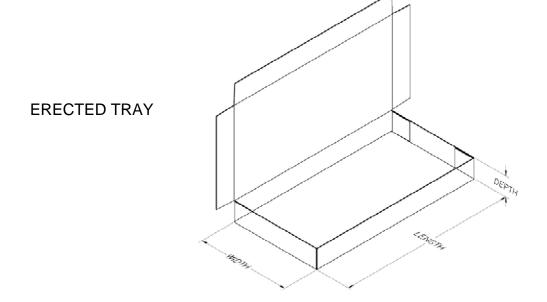
LOCATION OF CENTER LINES

The detail above shows the relationship of the blank to the machine. When changing over from one size tray to the other the blank must be located in the machine on the centerline as shown. The blank will always be located with the width centered to the mandrel on the ram assembly.

The following table shows the measurements needed to change from one size to the other. These dimensions should be used for the adjustments.

No.	ERECTED TRAY			BLANK		
	Length	Width	Depth	Right to center	Left to Center	Score to end
0	$7^{3}/_{16}$	7 ¹¹ / ₁₆ (7.688)	2	5 ⁷ / ₈ (5.875)	15 ⁷ / ₈ (15.875)	9 ½
1	13 ⁷ / ₁₆	11 ³ / ₁₆ (11.188)	2 ½	7 ½ (7.500)	20 ¾ (20.750)	15 ¹³ / ₁₆
2	13 ⁷ / ₁₆	11 ³ / ₁₆ (11.188)	2	7 ⁷ / ₈ (7.785)	21 ¹¹ / ₁₆ (21.688)	15 ³ / ₁₆
3	19 ⁵ / ₁₆	11 ³ / ₁₆ (11.188)	2	7 ½ (7.500)	20.700	21 ¹ / ₈
4	21 ⁵ / ₁₆	11 ³ / ₁₆ (11.188)	2 ½	8	21 ¾ (21.750)	23 ⁵ / ₈
5	21 ⁵ / ₁₆	11 ³ / ₁₆ (11.188)	2 ½	8	21 ¾ (21.750)	23 ⁵ / ₈





WARNING

DO NOT MAKE ADJUSTMENTS TO THIS MACHINE WHILE THE MACHINE IS RUNNING.

The machine should be turned off and the shutoff valve to the air line closed to assure the safety of the operator when making these adjustments.

The following procedure is ordered in a reasonable way but have in mind that when making the change over from the smallest tray to the largest or vice versa the order should be altered to avoid interference between the different assemblies and parts.

Examples:

- The step 7 should be done before the step 1 when changing from the smallest to the largest tray.
- The step 4 should be done before the step 1 when changing from the largest to the smallest tray.

1. RIGHT HOPPER GUIDE RAIL: Rotate the right handwheel until the dial indicator shows the **right to center** dimension of the desired tray.



2. LEFT HOPPER GUIDE RAIL: Rotate the left handwheel until the dial indicator shows the **left to center** dimension of the desired tray.



3. REAR HOPPER GUIDES: Release the locking handles of the rear guides and move them backwards. Locate a blank at the hopper between the side guides and touching the front guides. Move the rear guides to touch the rear end of the blank. Lock the handles.



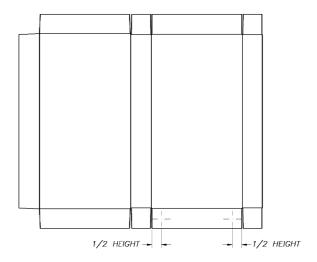
4. VACUUM CUPS: Adjust the first set of vacuum cups so that they are close to the score of the rear panel on blank. Adjust the second set of vacuum cups to be at the center of the length of the blank. Adjust width of cups to contact blank on the side panels. For the smallest blank the first set will not be used and should be retired backwards so it will not interfere with the rear guides, then the second set should be located close to the score of the rear panel on blank.

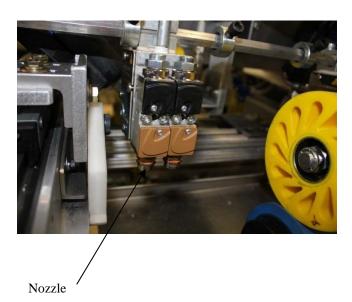


5. REAR BLANK PUSHER: Move the mandrel in reverse to its bottom position. Adjust the rear blank pusher to ½" from the rear of the blank when sitting flat on the guide rails.



6. GLUE GUNS: They should be located depending of the width of the erected tray so the tip of the nozzles are centered with the half of the height of the erected tray from the slot.

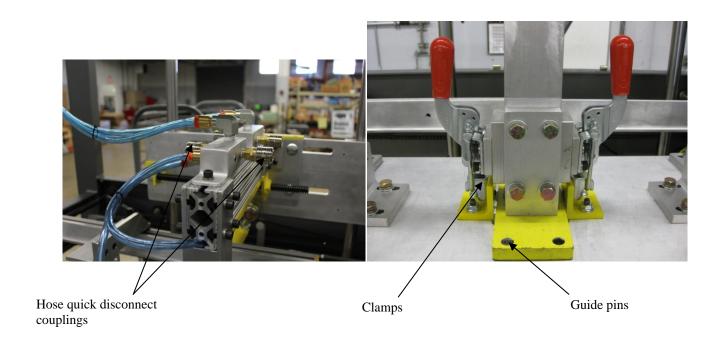




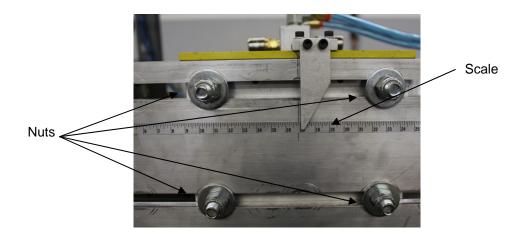
7. REAR BLANK STOP: Move the rear blank stops to locate them at the **score to end dimension** of the erected tray using the scales on both sides.



- 8. POSITIONER: The positioner on the right side should be move according to the **height** of the tray, the positioner on the left side does not have to be adjusted.
- 9. MANDREL ASSEMBLY: Remove existing mandrel assembly and replace with the next mandrel size. To do this, disconnect the air hoses from the manifold, release the clamps and extract the mandrel. Locate the desired mandrel using the guide pins and lock the handles. Connect the hoses.



10.MANDREL HORIZONTAL ADJUSTMENT: Loosen bolts on ram base and turn adjusting screw with ratchet handle so that edge of ram mounting plate is adjusted to the scale. Measure the **length** of erected tray and adjust ram arm plate to that dimension. Tight the nuts and retire ratchet handle.



11. POSITIONER: The positioner located on the ram side need to be moved to match the scale with the height of the tray.



12. FORMING SECTION: Rotate the forming section hand wheel until the dial indicator shows the desired **width** of erected tray.



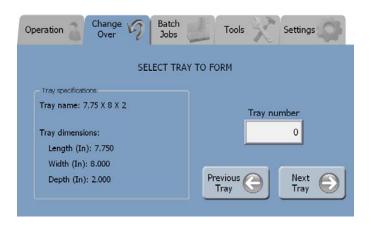
13. REAR CORNER FOLDERS: Measure **length** of tray and loosen corner formers at discharge end of machine and locate them at the desired length of the erected tray using the scales on the sides.



14. LID LIFTER: Move the lid lifter to be centered between the two rear and front folders.



15. Change the case number on the main screen to the number to be run.



MAINTENANCE

WARNING

BE SURE THAT POWER TO THE MACHINE IS TURNED OFF AND ISOLATED TO ENSURE THAT NO ACCIDENTAL START-UP CAN OCCUR.

AIR LINES

Check that the regulator on your machine is set to 80psi before operating your machine.

Check for water build up in filter canister and remove if required. Filter element may be cleaned with soap and water.

Check oil level in lubricator and fill if required. Use mist type oil rated 50-200 SSU (ISO Grade 7-46) as 100°F (38°C).

DAILY CHECK LIST

- 1. Check for loose nuts or bolt and retighten.
- 2. Check all airlines for cracks and leaks.
- 3. Check for loosen or broken electrical cables.
- 4. Check all doors are closed and secure to the machine. Be sure that all safety interlocks on the doors are functioning properly.
- 5. Clean all corrugated board pieces from the machine
- 6. Remove all excess glue from guide rails and folding bars.

WARNING

LEAVING PANELS OFF THE MACHINE OR OVERRIDING SAFETY INTERLOCKS COULD CAUSE INJURY TO OPERATOR OR BYSTANDERS NEAR THE MACHINE.

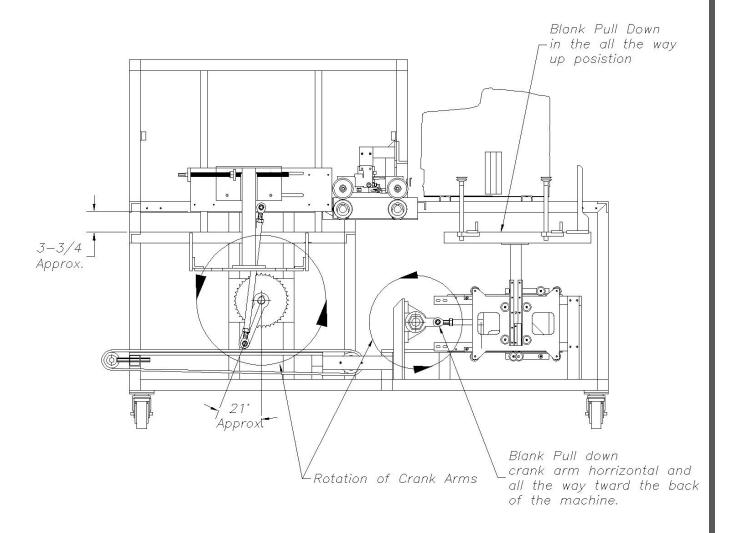
WEEKLY CHECK LIST

- 1. Check motor and gear reducer of drive for over heating.
- 2. Check and clean exterior of glue unit of all particles of glue (refer to user's manual for additional maintenance instructions.)
- 3. Check vacuum cups for wear and remove any particles of cardboard that may impede air blow. Check and clean vacuum filter located on the end of the vacuum generator.
- 4. Lightly oil all drive chains.

MONTHLY MAINTENANCE

- 1. Lubricate all rotary bearing with general-purpose grease.
- 2. Lightly oil the guide rods on Ram Assembly.
- 3. Lubricate and roller chain with lubricant. And also check chain tension; if chain sags or is loose retighten tension.

RAM AND VACUUM PULL DOWN TIMING



If at anytime it is required to remove the drive chain from the gear reducer and ram the above illustration will help in setting the timing back on the machine.

The ram and vacuum pull-down cranks move in a counter clock wise rotation when looking into the machine as shown. Using the supplied collars locate the bottom of the ram plate 3-3/4" from the top of the angle supporting the ram's guide rods. Next using the supplied hand wheel on the motor rotate the blank pull-down to the point where all vacuum cup are in there uppermost position as shown. This can also be done after the chain is replaced by adjusting the collar on Blank Pull Down crank.

When reattaching the chain to the ram and drive assembly, make sure that the ram crank is beginning it upward rotation. Remember to relocate and tighten the chain lightener on the chain.

TROUBLE SHOOTING

PROBLEM	PROBABLE SOLUTION
Blank does feed from hopper properly	Check that the blank feed switch is set to Auto.
nopper property	2. Check guide rail adjustment, may be too loose or too tight.
	3. Check for worn vacuum cups.
Tray not forming properly.	Check that mandrel is positioned properly
	 Check location of blank under blank mandrel and adjust blank stops being sure that blank is centered under mandrel.
	3. Check to be sure that blank have proper score lines
	4. Check rails for trash or glue build up.
	5. Check adjustment on flap plows. If the plows are too close to the score line, the flaps will not fold properly.
Improper glue application For assistance with you	Check function of photo eye that activates glue gun. (See electrical schematic).
glue problems please call	2. Check that glue switch is turned on.
NORDSON®	3. Check glue unit that the proper glue setting is selected.
800-241-8777 They will assist you with	4. Check temperature on glue tank
any problem that may arise with your unit.	5. Check air pressure to unit and glue gun.
Drive motor runs but	Check air supply to the machine.
components not operating.	Check input from blank feed selector switch. Verify that PLC input is turned on.
Indexer not operating	 Check air supply to the machine. Check that indexer photo cell (PC-3) is operating properly and is set to see tray in place. Check all air lines to indexer valve and air cylinder. Check that air valve to indexer is operating properly.

SPARE PARTS AND SERVICE

For general information and parts contact:

EAGLE Packaging Machinery LLC.

4760 NW 128th St. Miami, Florida 33054 Ph: 305-622-4070 Fax: 305-688-7772

www.eaglepm.com

It is necessary that before you contact EAGLE for parts or service, that you know the **Machine Model and Serial Number**. (VASSOYO Tray Erector model ATF4-009, SN 11161.)

- 1. Locate the assembly the part is being ordered for. At the end of this manual is a complete set of assembly drawings to assist you in finding these parts.
- 2. Once you have the assembly drawing, locate the item number of the part you want to order and write down the part number from the bill of materials.
- 3. When calling **EAGLE** for parts.
 - a. Give machine model and serial number (VASSOYO, ATF4-009, SN 11161)
 - b. Give assembly part number and description (ATF4-009-10, MANDREL # 1)
 - c. Give item number, part number and description (Item #5, TC-331005, LATCH)

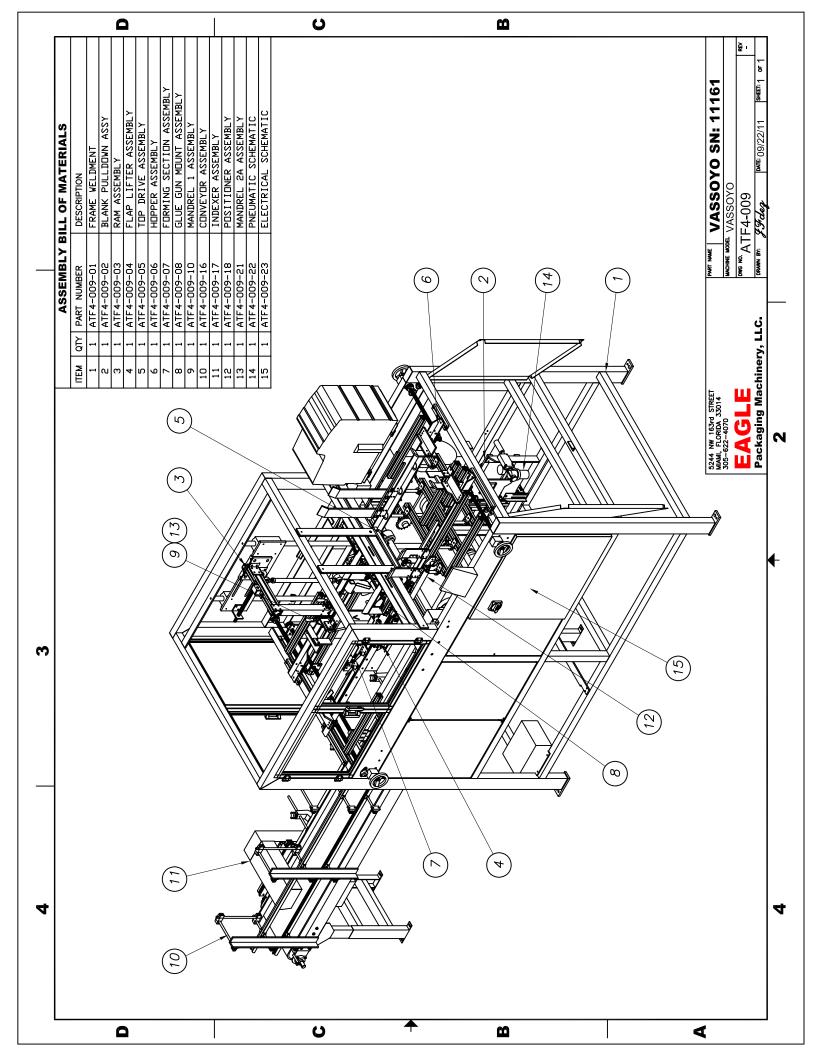
By following the procedures described above, you will assist us in supplying you with the correct parts for your machine and will eliminate any misunderstanding between your purchasing agent and our parts department.

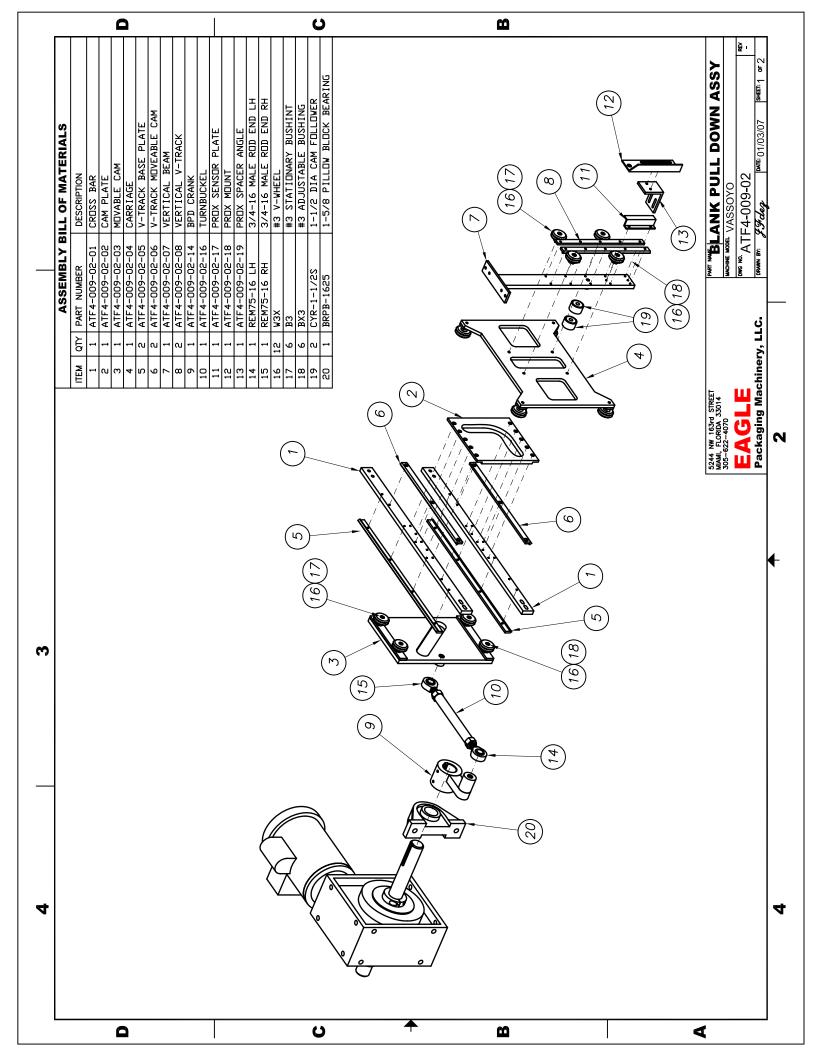
SUGGESTED SPARE PARTS TF4000A

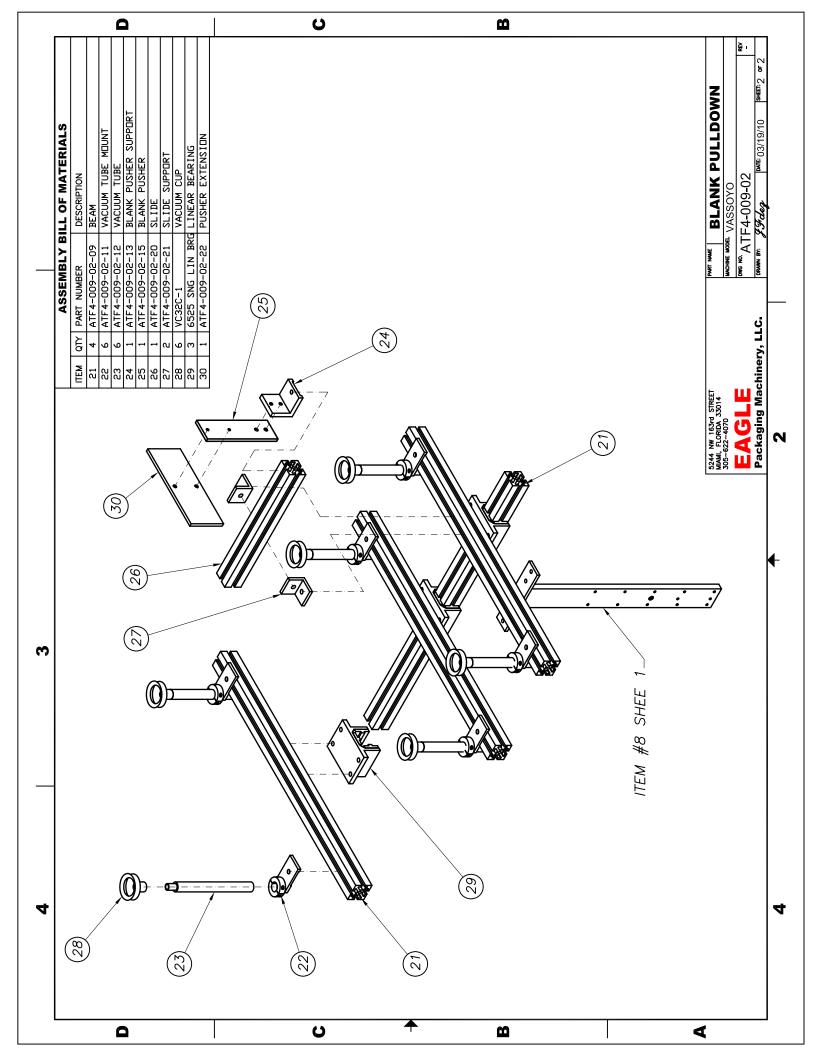
QTY	ITEM NUMBER	DESCRIPTION	Ordered
4	SUREBEAD DUAL .16	GLUE NOZZLE	
2	1095801	24VDC REPACEMENT VALVE	
6	4X2CRB	4" DIA YELLOW RUBBER ROLLER	
2	SY7000-5W-2POS-	24VDC REPACEMENT VALVE	
	BODY		
16	VC32C-1	ACCORDIAN VACUUM CUP	
3	ADJDL-30	30A FUSES	
3	AD 20ACC	20A FUSES	
3	AD-15AFASTCC	15A FUSES	
3	AD-10AFASTCC	10A FUSES	
2	AD 5ACC	5A FUSES	
2	AD 4 ACC	4A FUSES	
4	TM-BLKLT	PUSH BUTTONS LED	
1	QS18VP6DQ5	PHOTO CELL	
1	PHQS18VP6LAFQ5	LASER PHOTO CELL	
1	C3PROXPNPN0	PROXIMITY SWITCH	
1	DW-AS-624-M18-002	PROXIMITY SWITCH	
1	360H100	DRIVE BELT TOP DRIVE	
1	300H100	DRIVE BELT IDLER	
1	22N9DCBV-24BVDC	2 WAY N.C., DIRECT ACTING	
		VALVE	
1	FLT-I-90-100M	GLUE GUN FILTER	
2	ATF4-009-05-04	POLYURETHANE ROLLER	
2	SDR-20-6-BM	AIR CYLINDER	
1	CDR-24-3-BM	AIR CYLINDER	
2	UDR-20-10-BM	AIR CYLINDER	
1	SKIT-150	REPAIR KIT FOR 1-1/2 BORE AIR	
		CYLINDERS	
2	E-2	VACUUM PUMP FILTER ELEMENT	

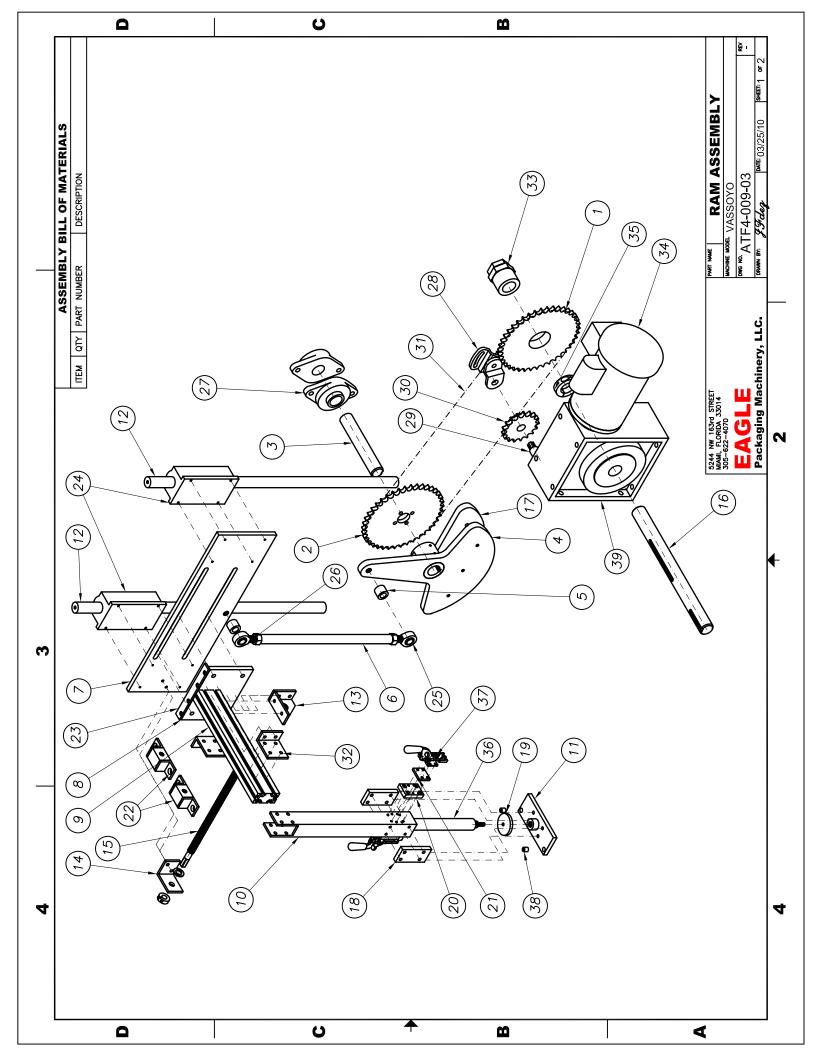
ASSEMBLY DRAWINGS AND ELECTRICAL DIAGRAMS

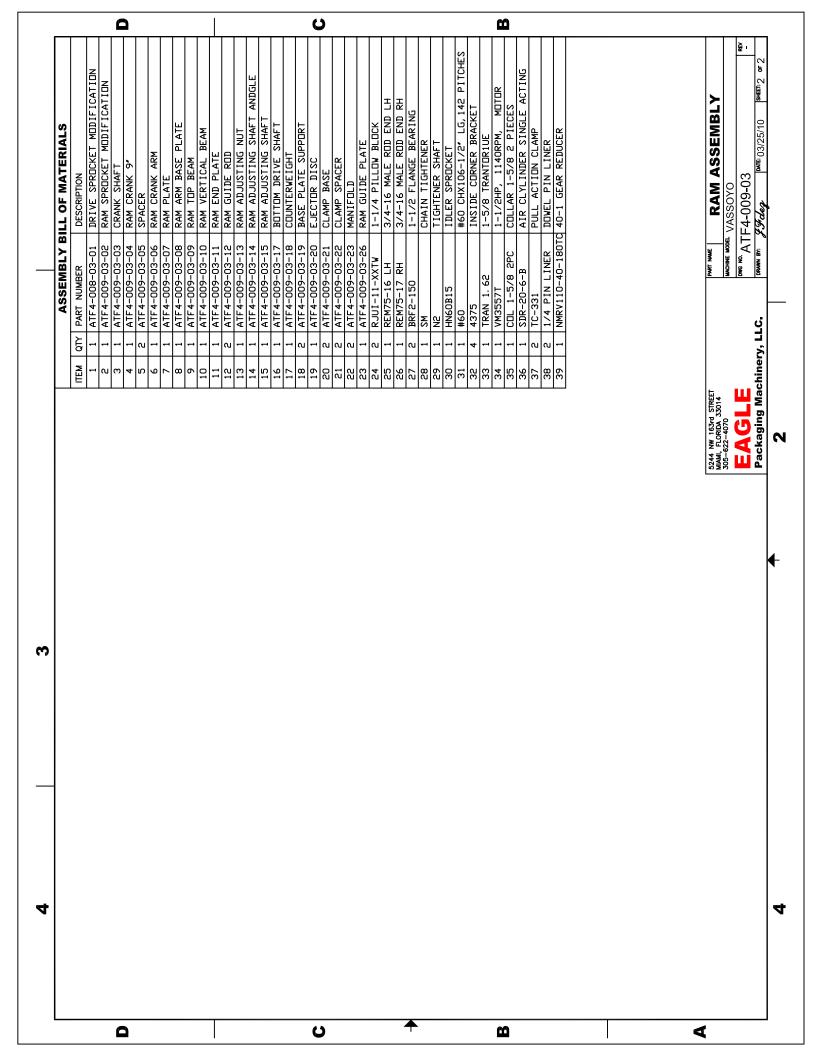
ATF4-009	MAIN ASSEMBLY
ATF4-009-02	BLANK PULL DOWN ASSEMBLY
ATF4-009-03	RAM ASSEMBLY
ATF4-009-04	FLAP LIFTER
ATF4-009-05	TOP DRIVE ASSEMBLY
ATF4-009-06	HOPPER ASSEMBLY
ATF4-009-07	FORMING SECTION ASSEMBLY
ATF4-009-08	GLUE GUN MOUNT ASSEMBLY
ATF4-009-10	MANDREL 1 ASSEMBLY
ATF4-009-16	CONVEYOR ASSEMBLY
ATF4-009-17	INDEXER ASSEMBLY
ATF4-009-18	POSITIONER ASSEMBLY
ATF4-009-21	MANDREL 2A ASSEMBLY
ATF4-009-22	PNEUMATIC SCHEMATIC

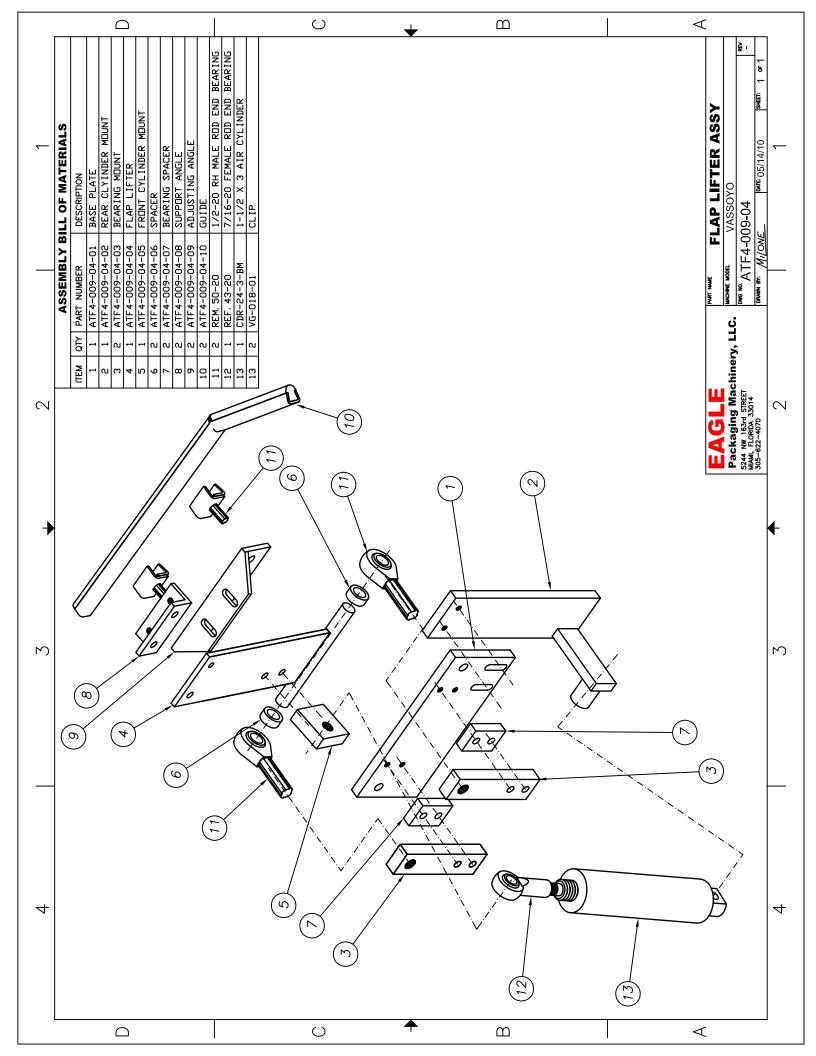


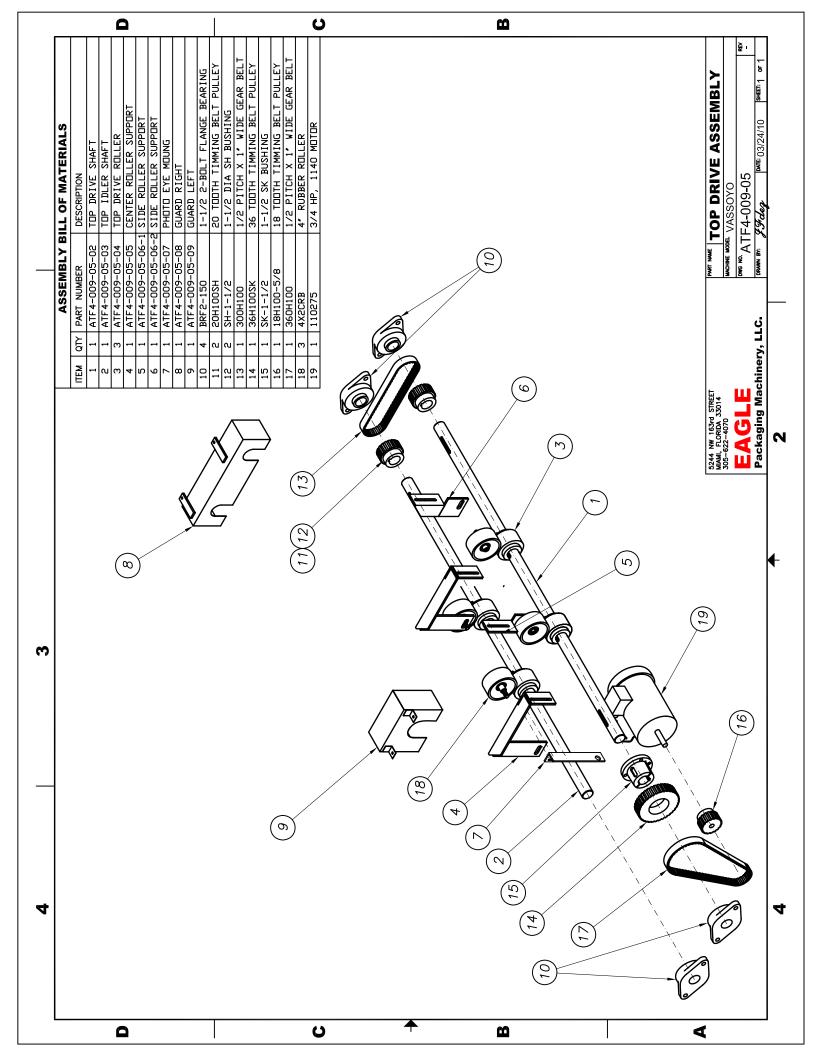


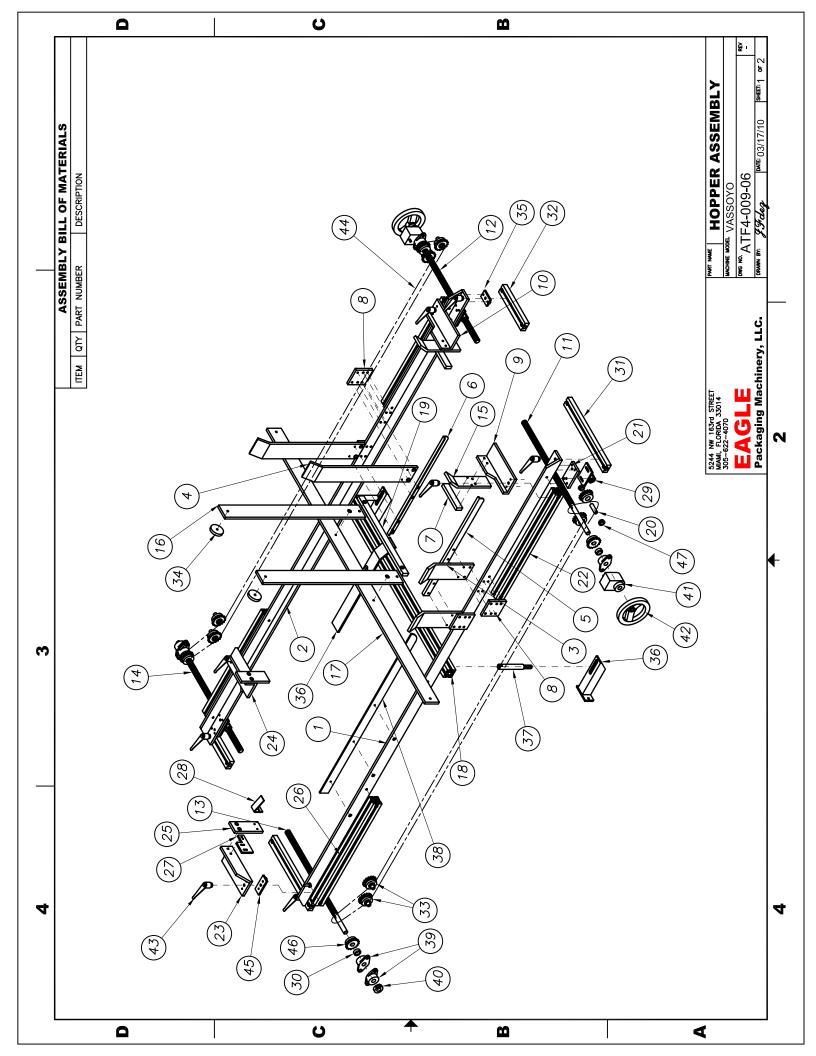


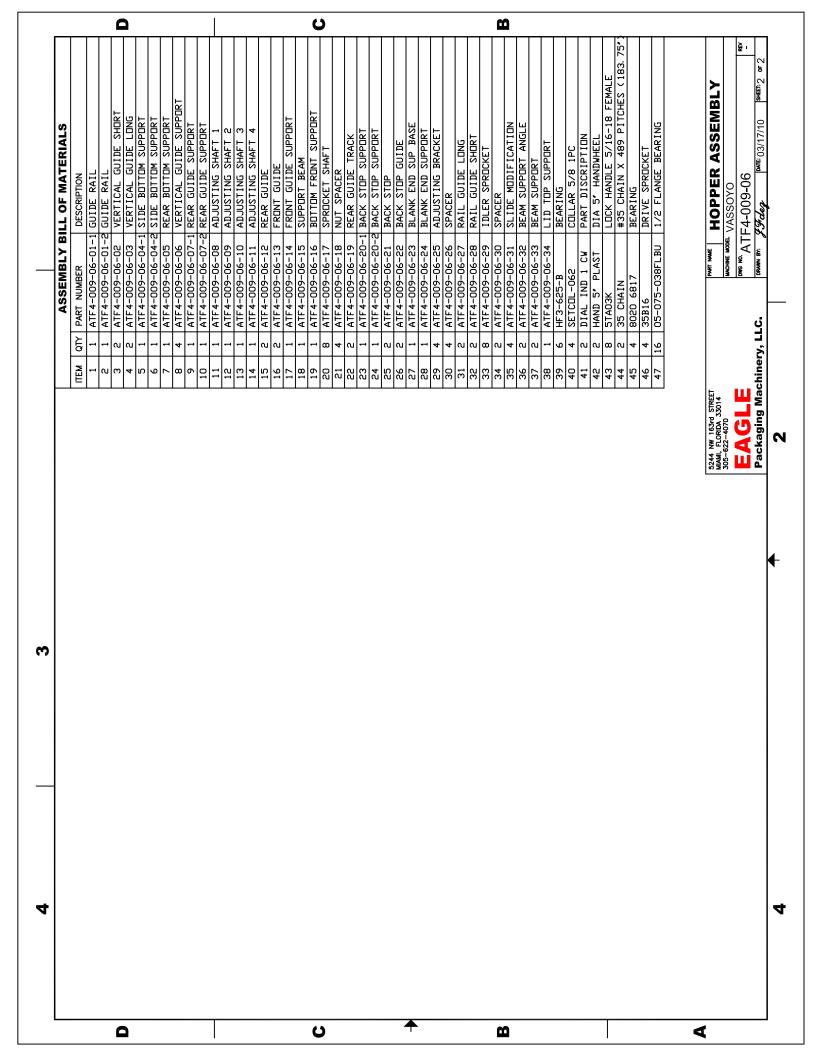


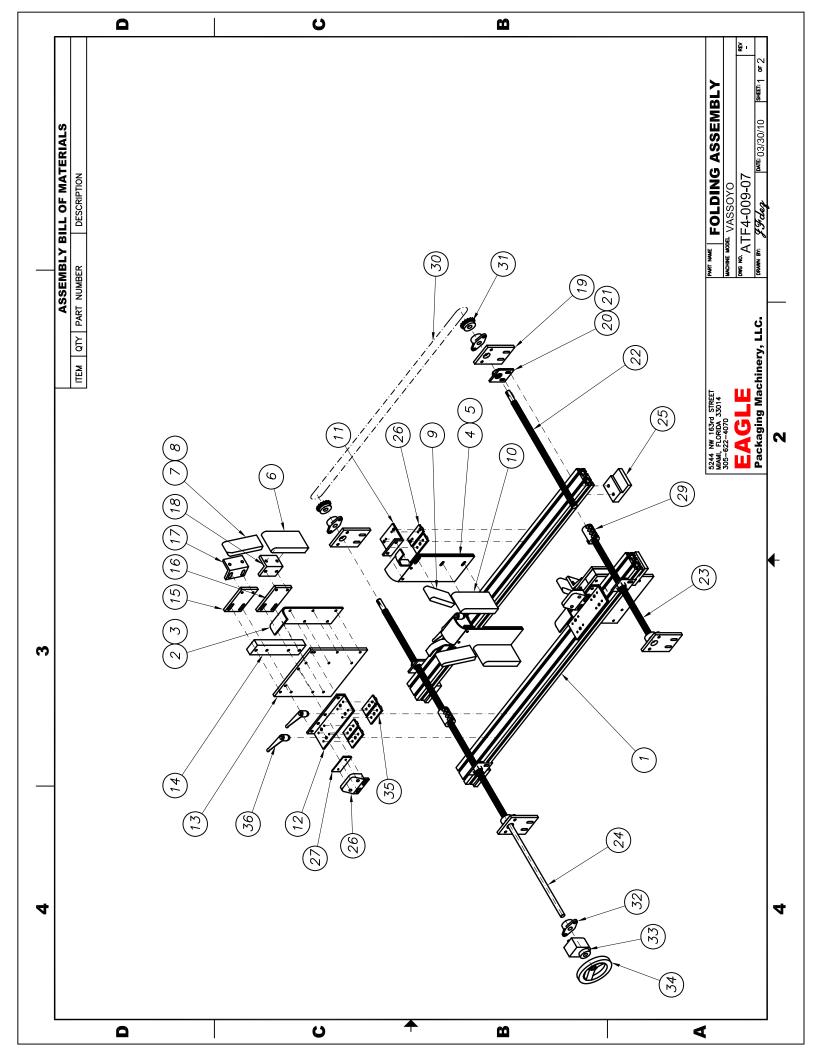


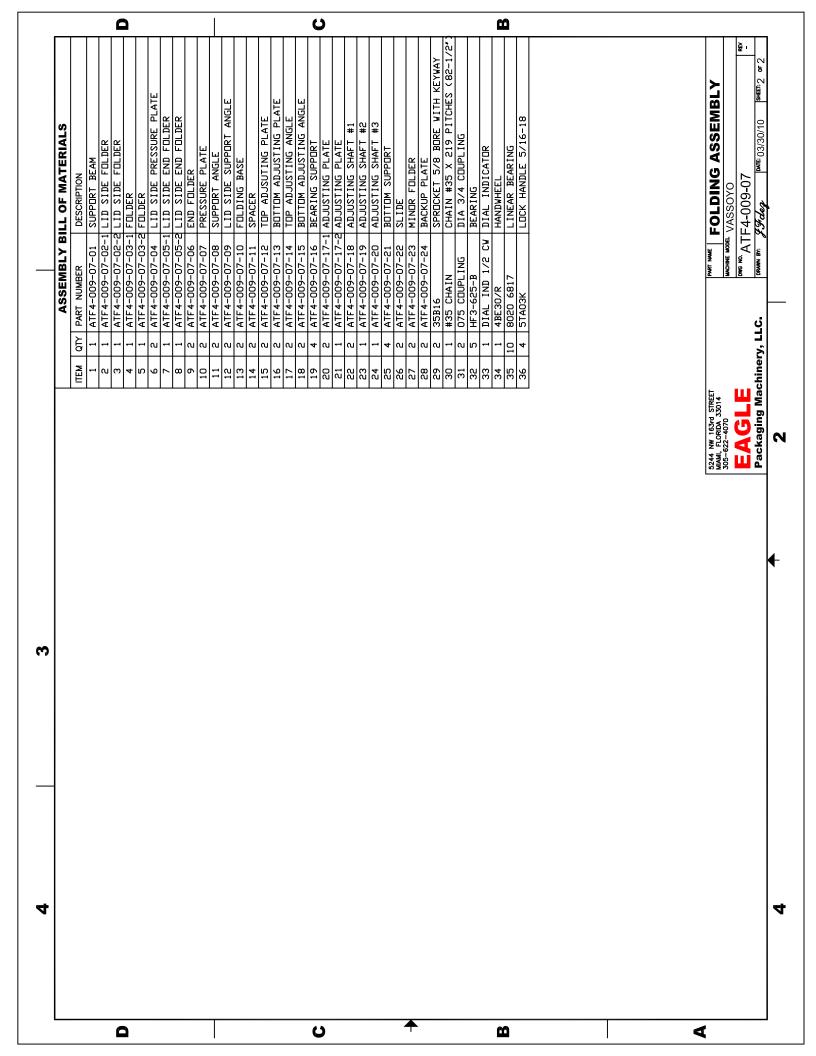


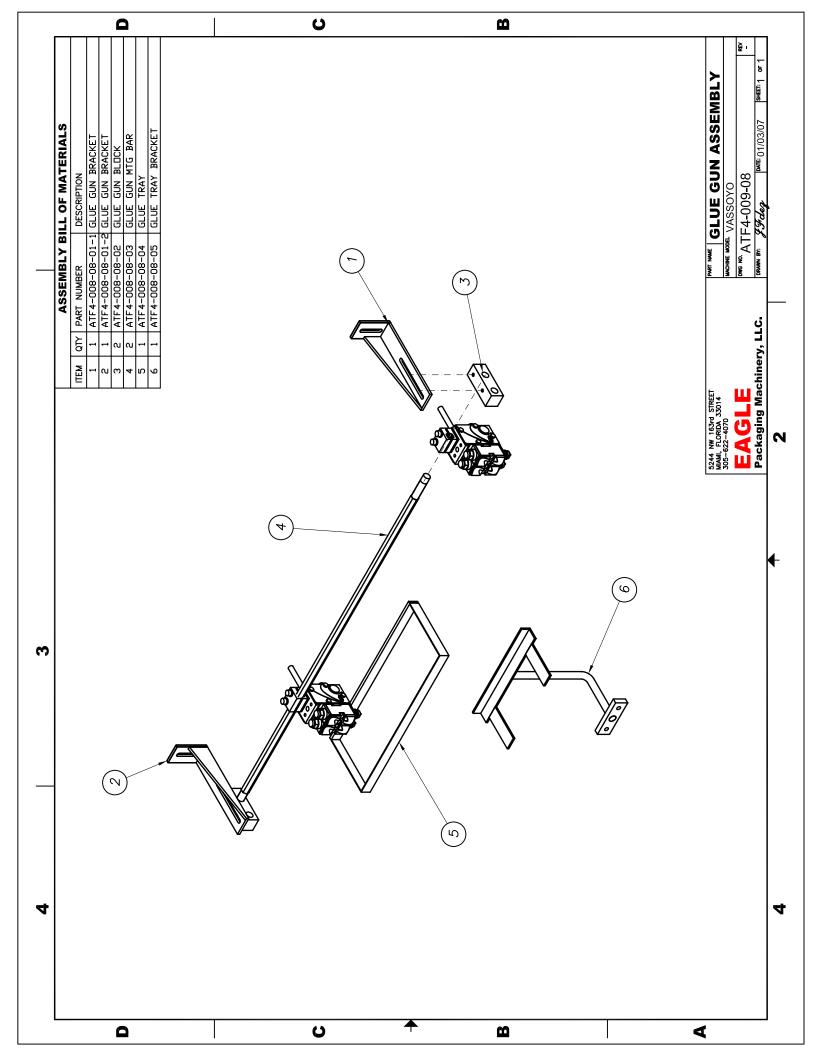


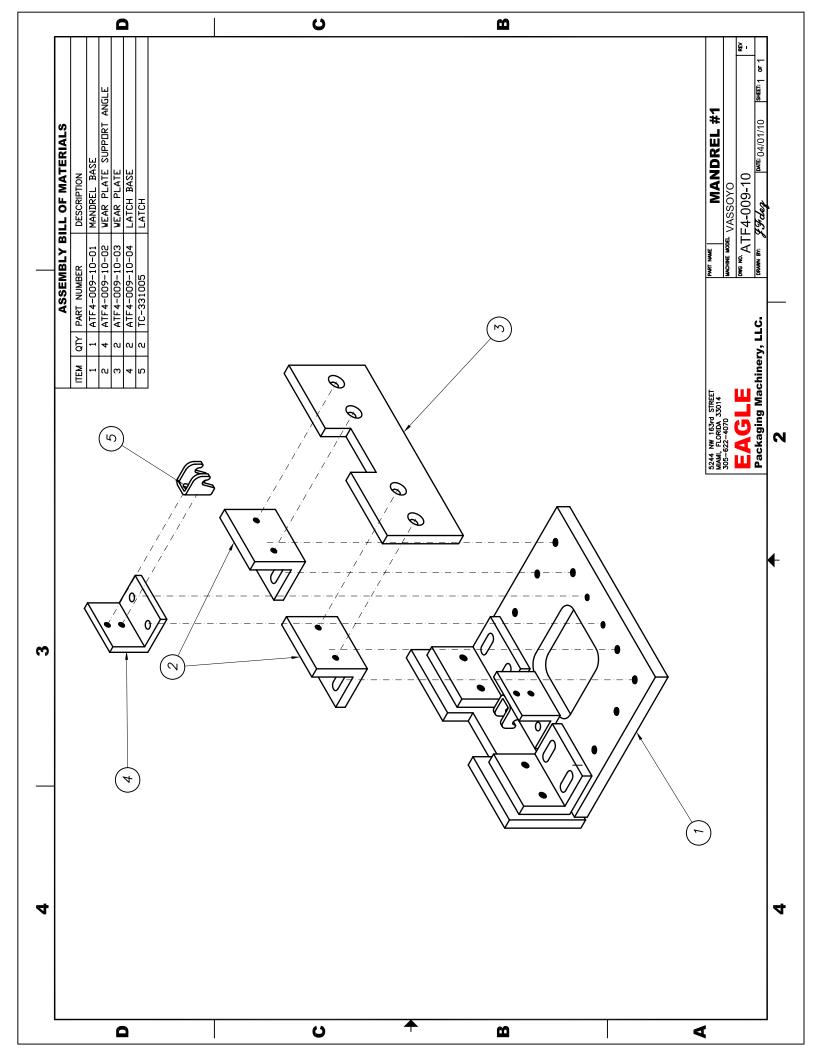


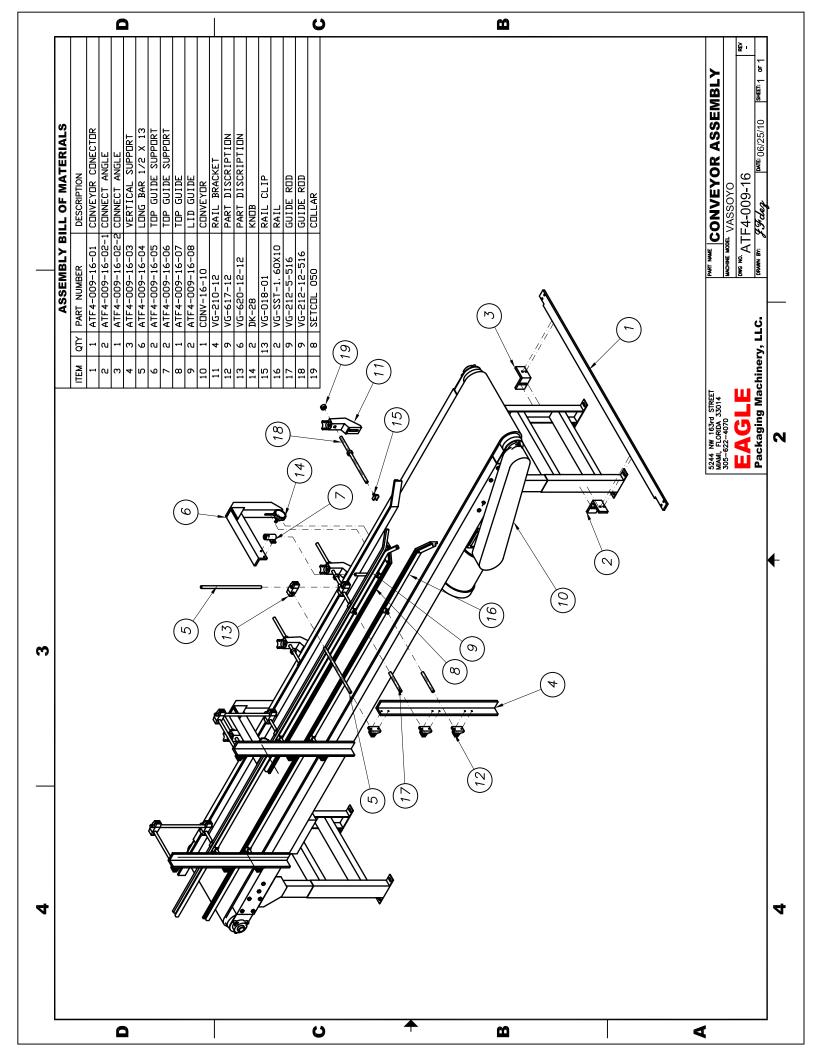


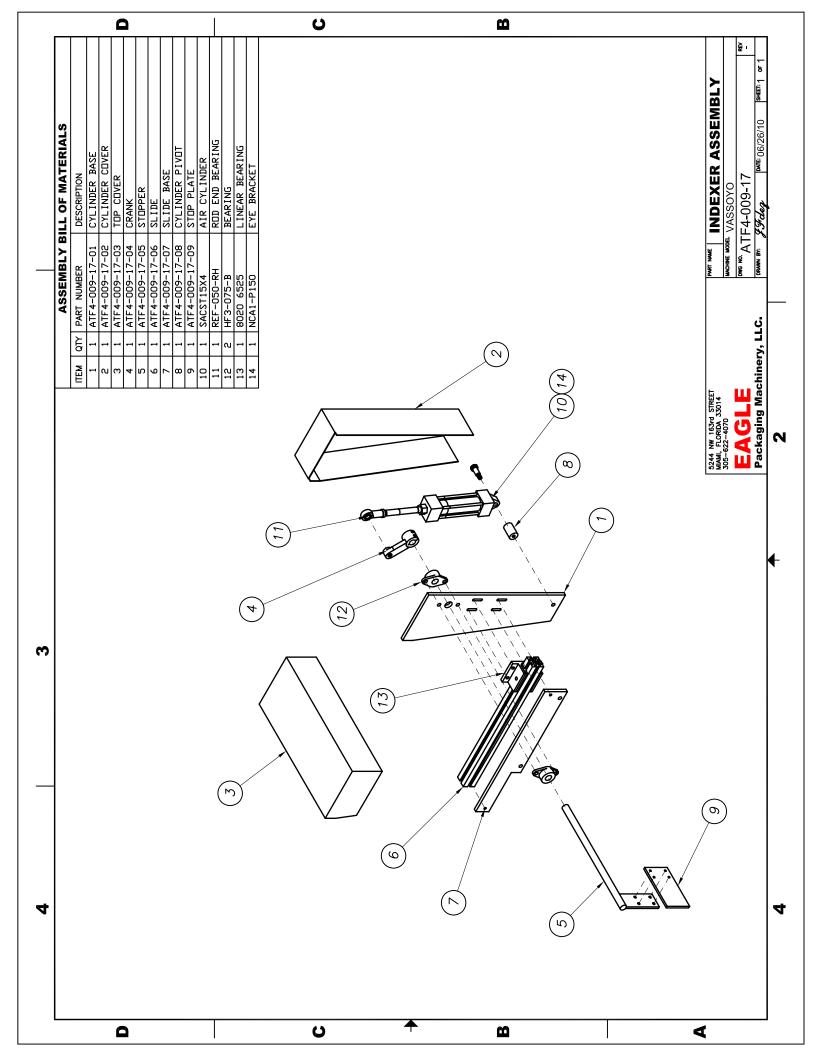


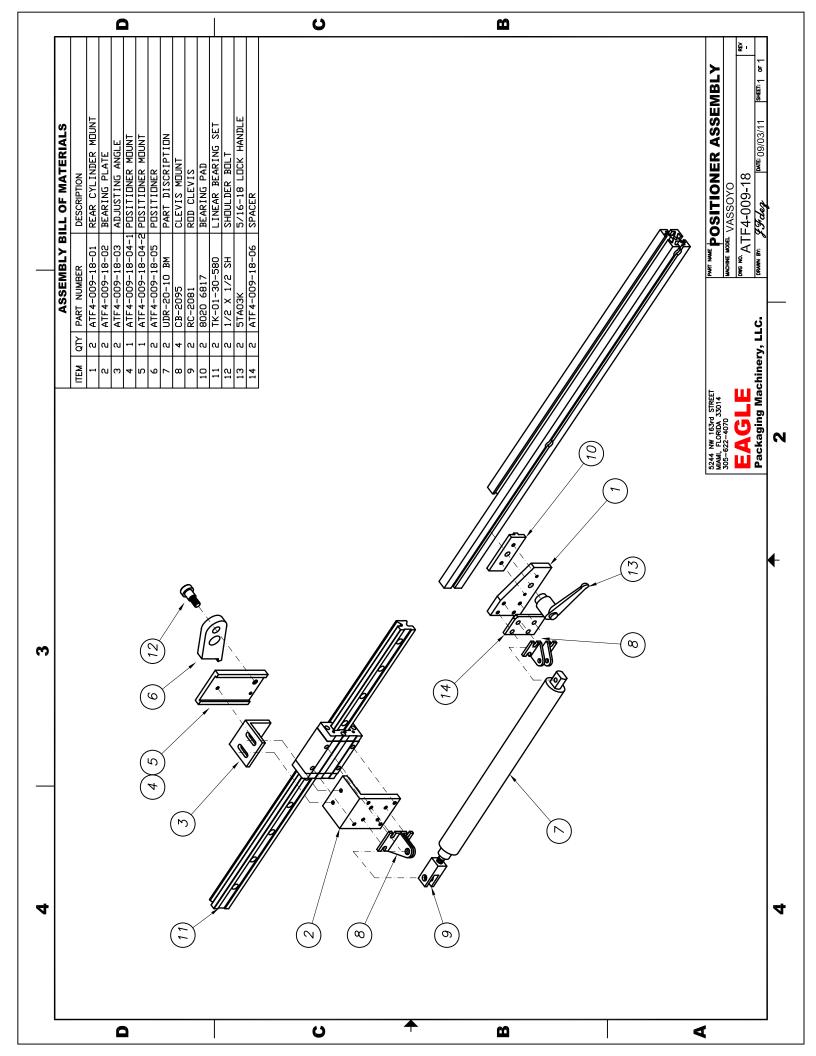


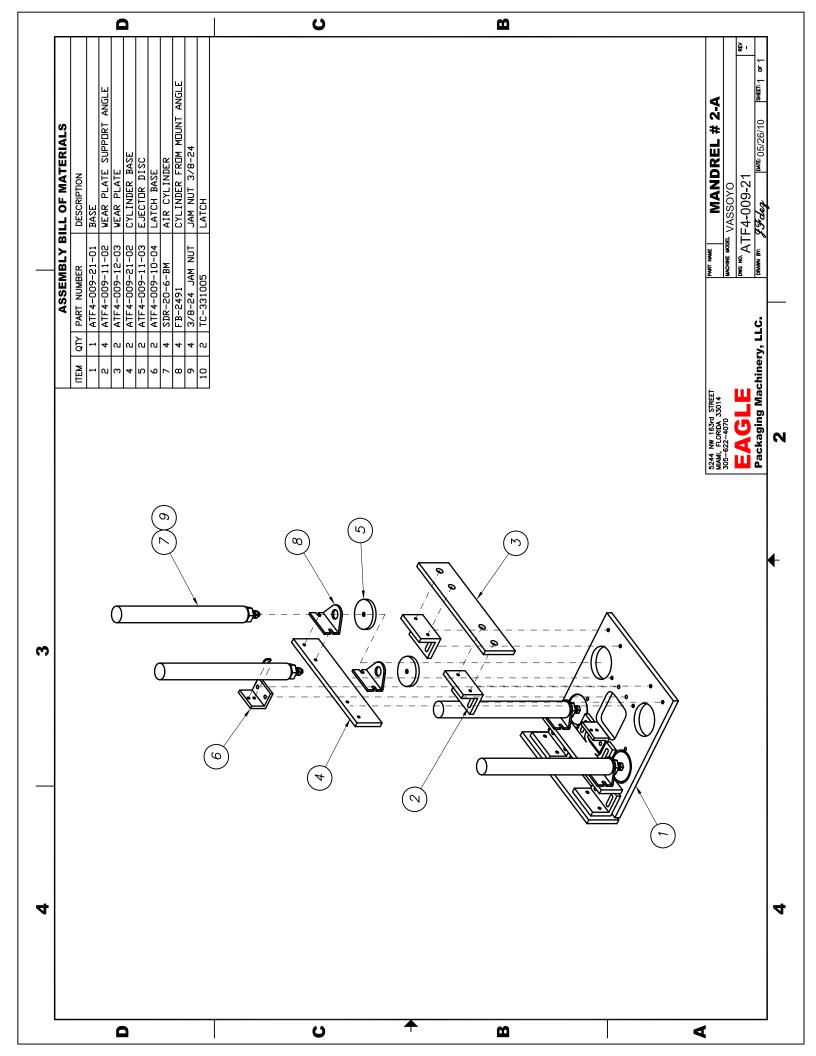


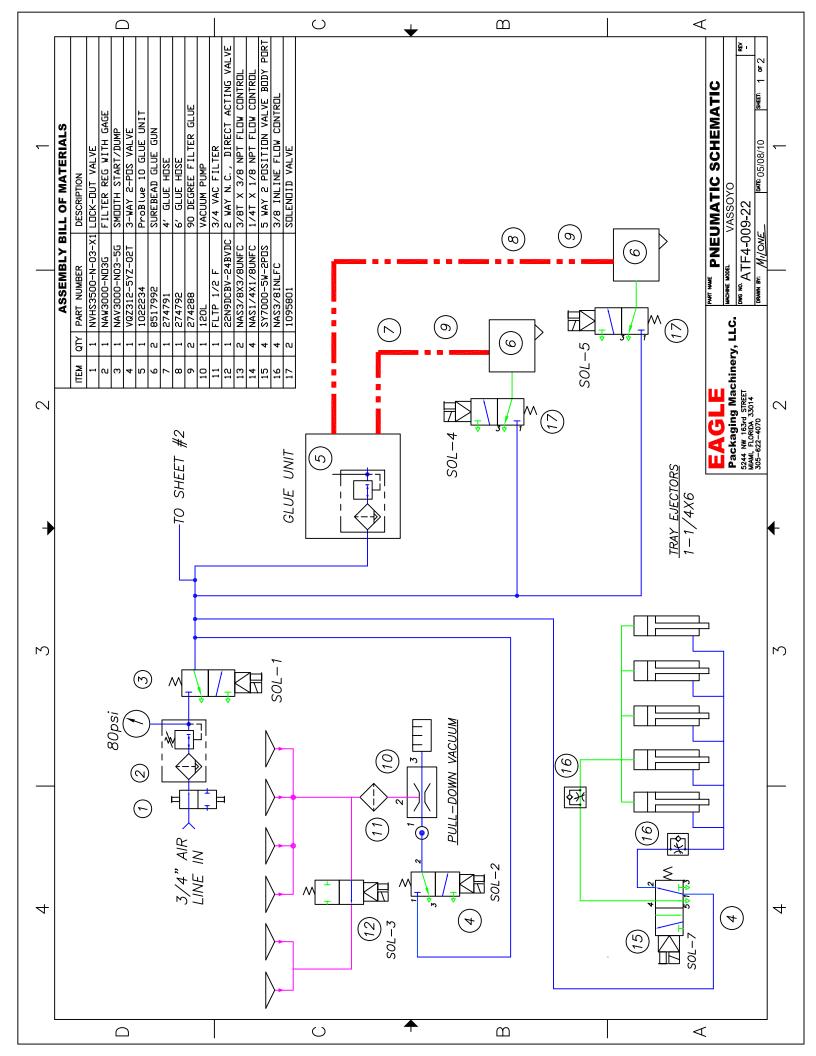


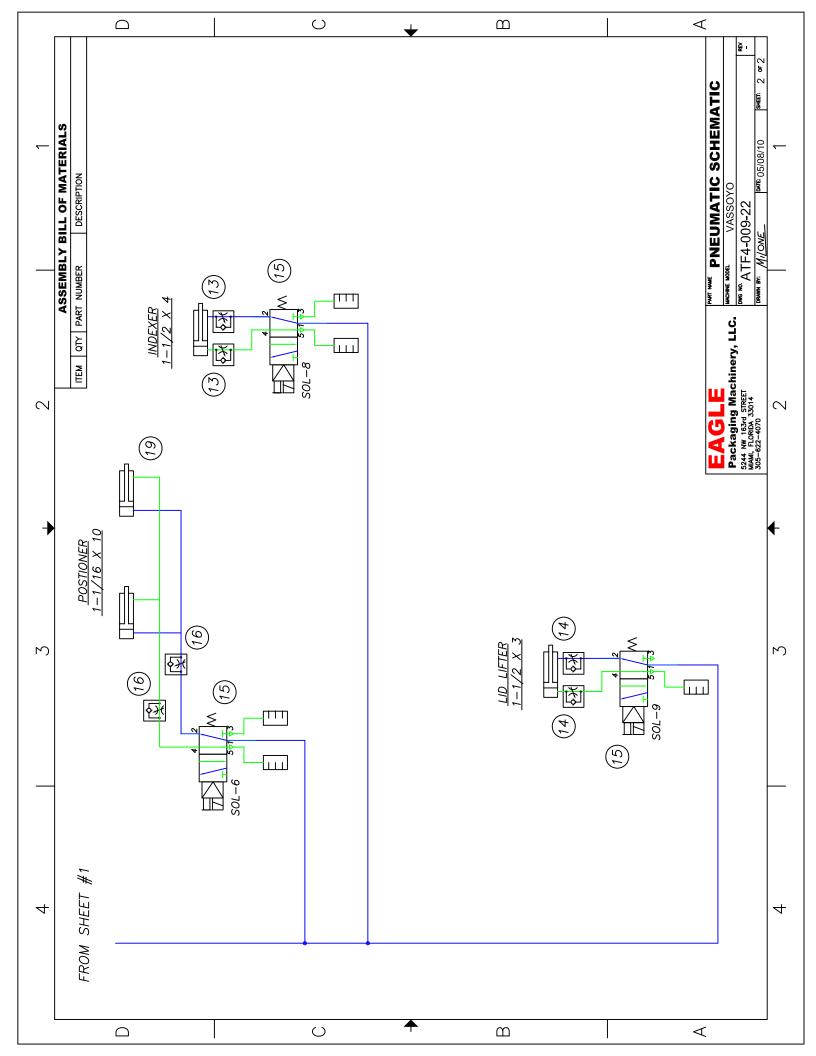


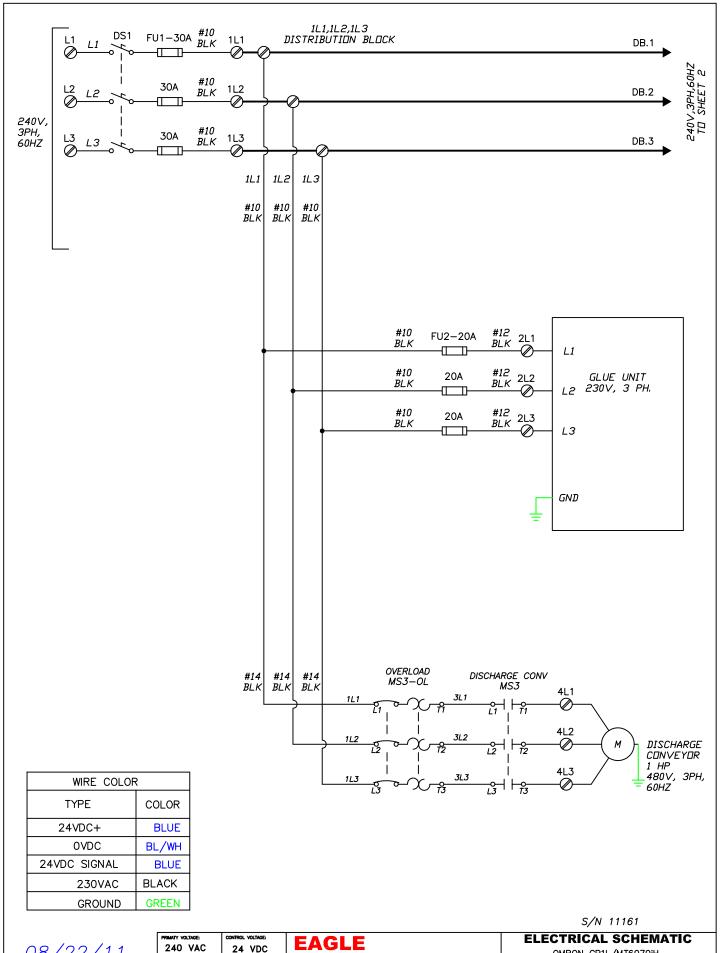












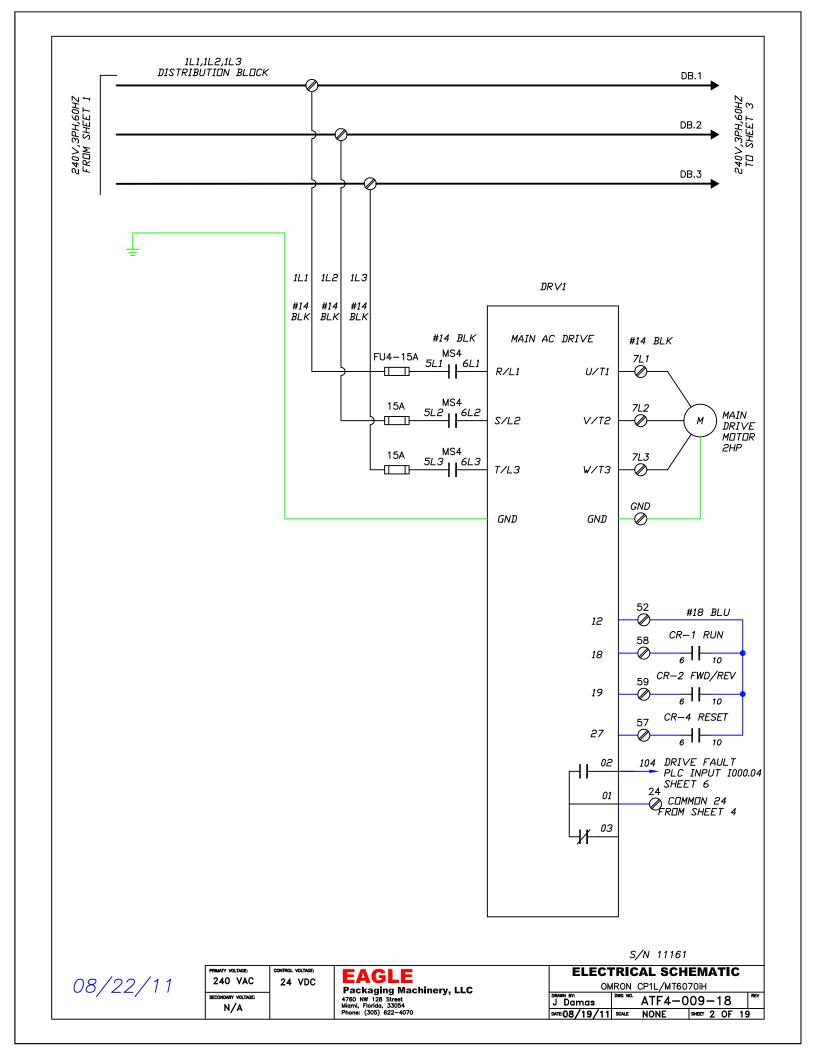
08/22/11

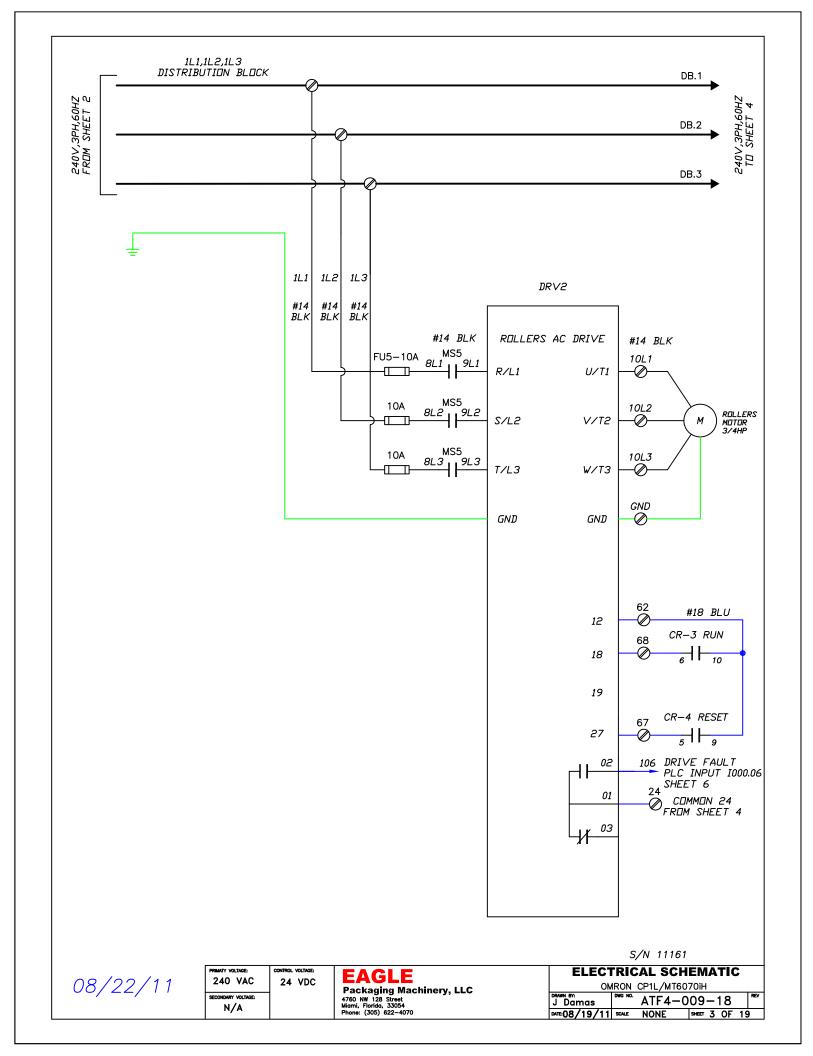
240 VAC 24 VDC N/A

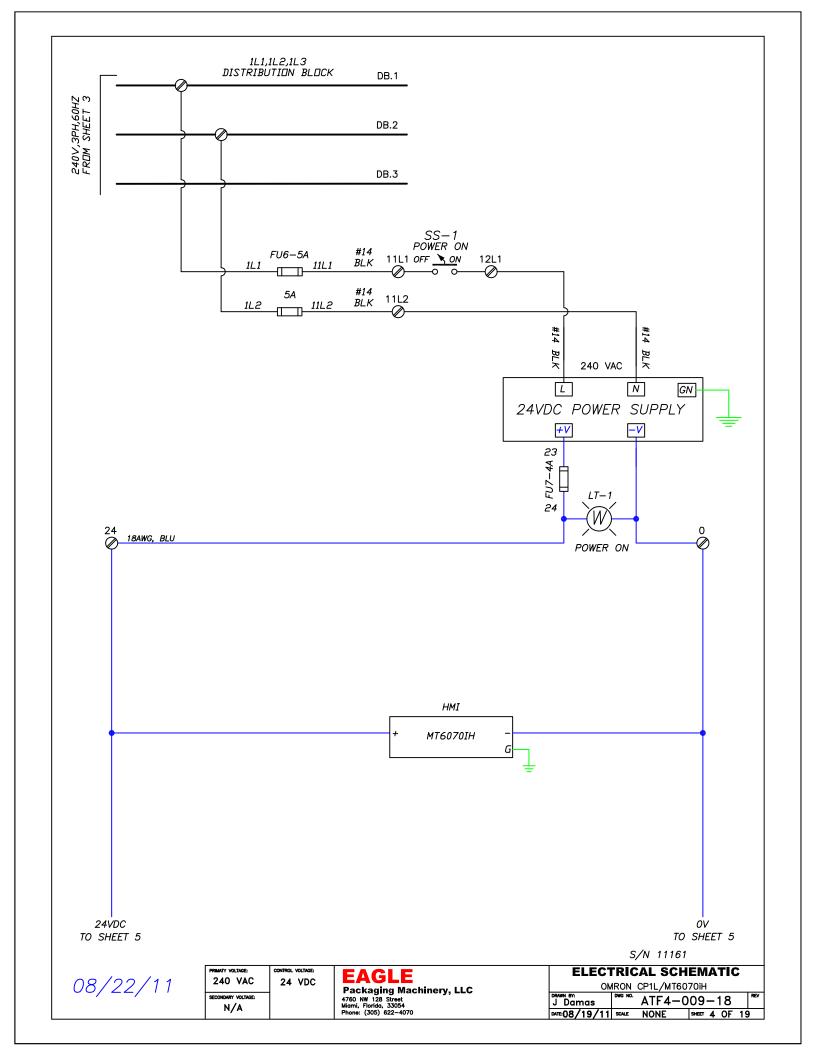
Packaging Machinery, LLC 4760 NW 128 Street Miami, Florida. 33054 Phone: (305) 622-4070

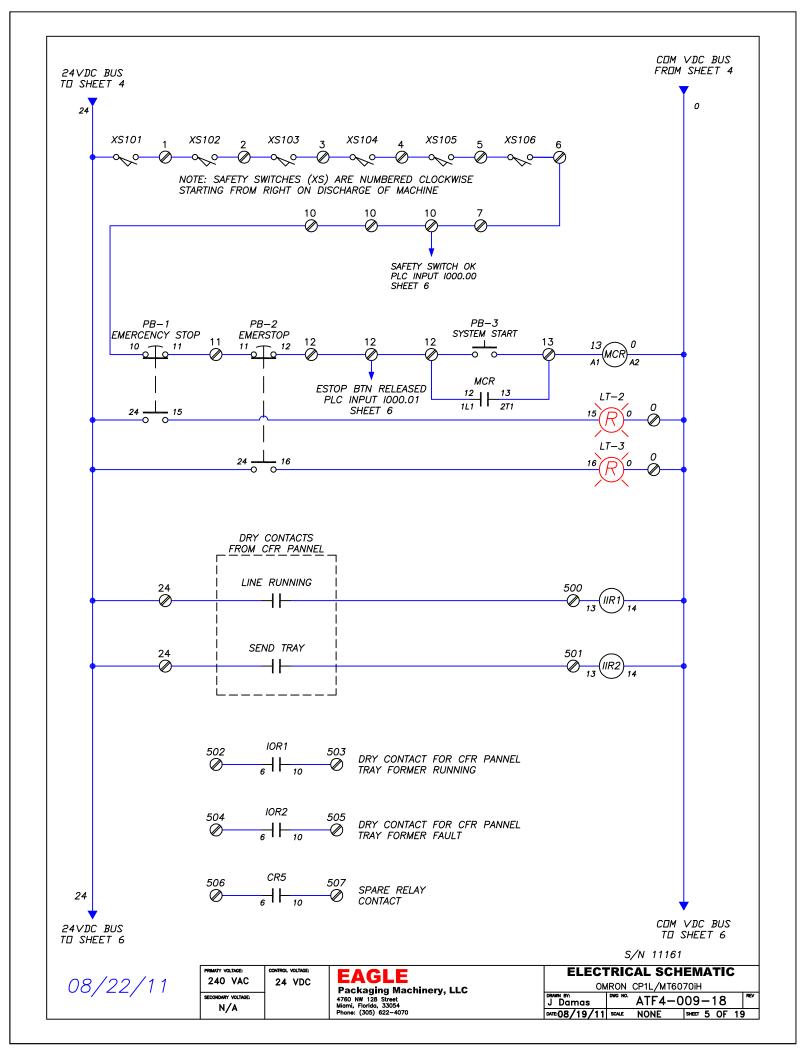
OMRON CP1L/MT6070iH

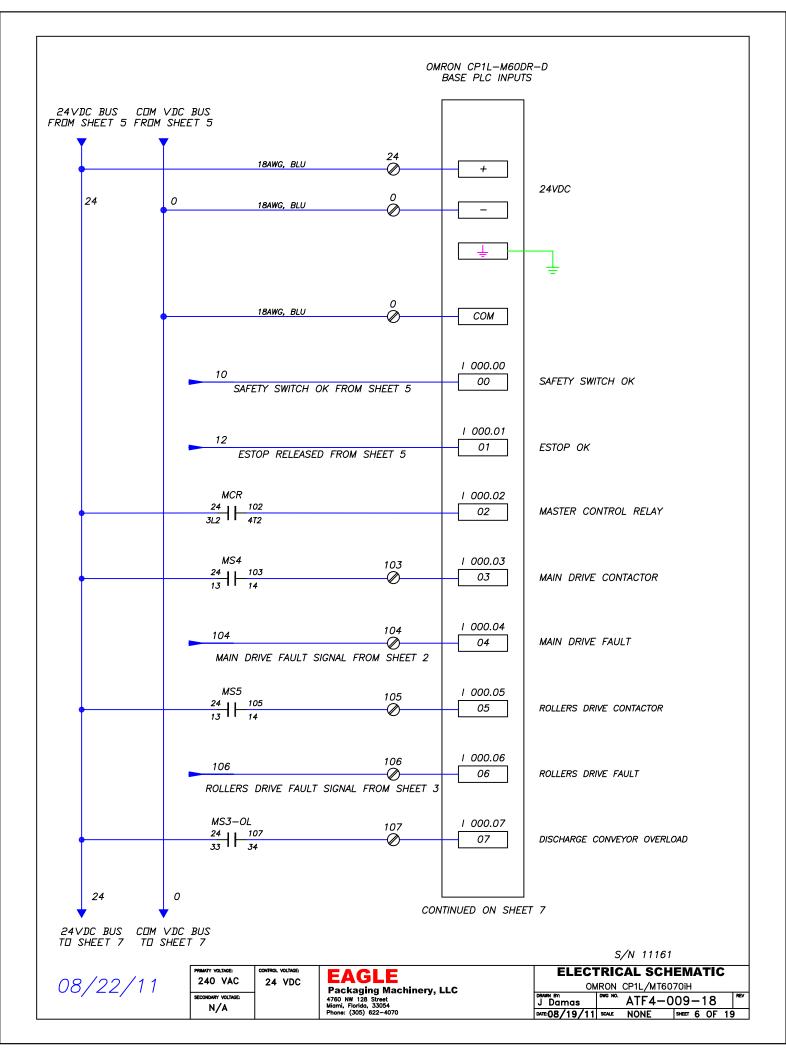
DRAWN BY: J Damas DWG NO. ATF4-009-18 DATE:08/19/11 SCALE NONE SHEET 1 OF 19

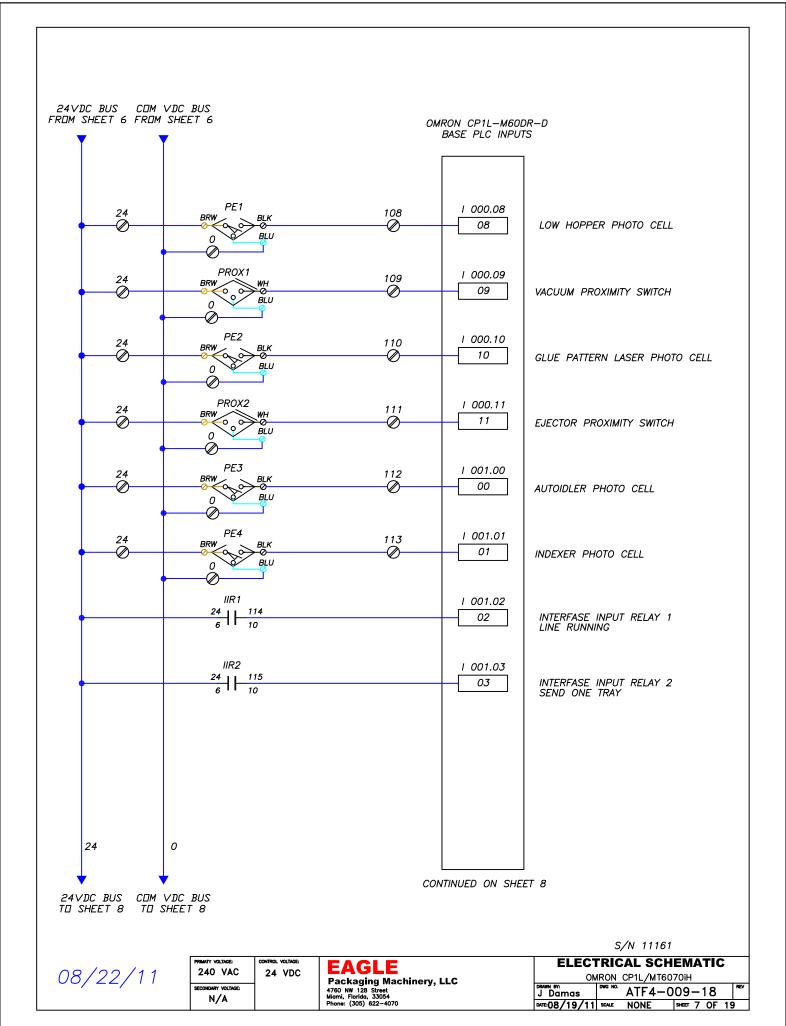


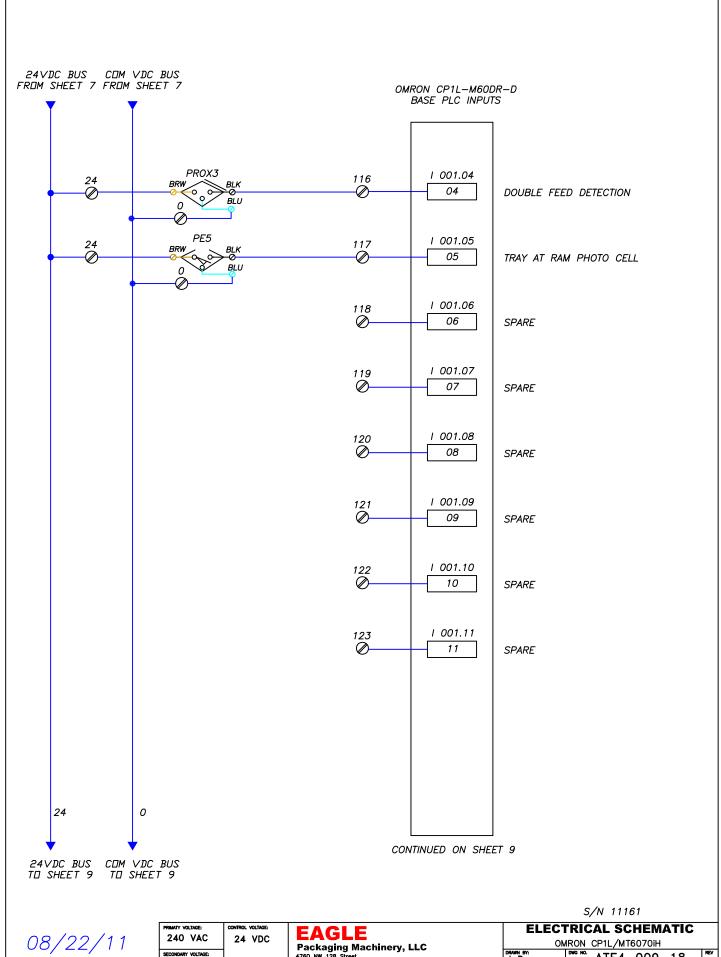






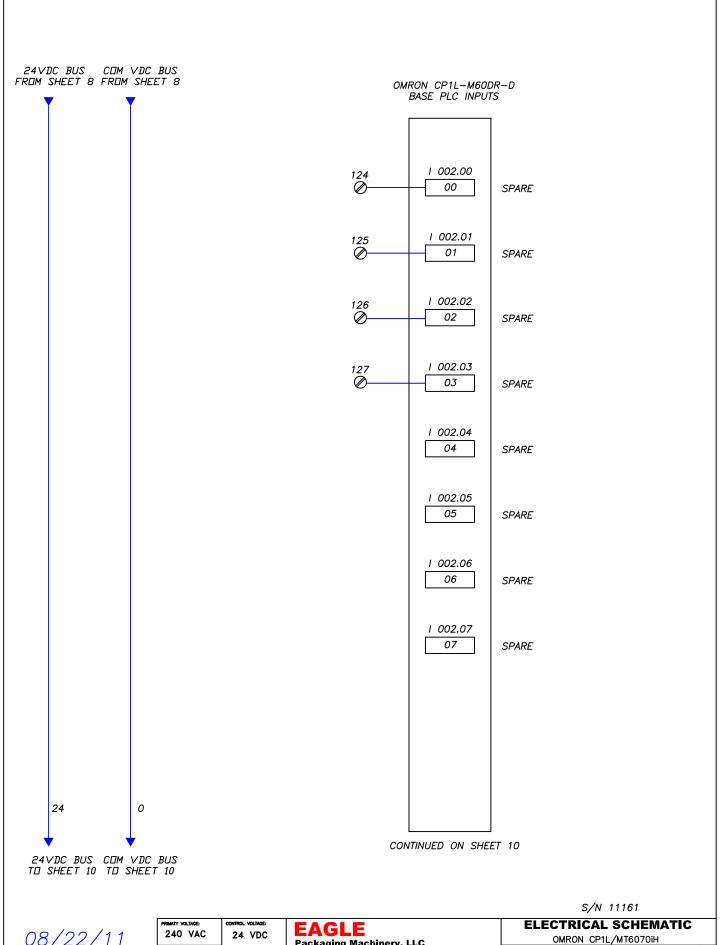






OMRON CP1L/MT6070iH

DRAWN BY:
J Damas | DWG NO. ATF4-009-18 | |
DATE-08/19/11 | SCALE | NONE | SHEET | 8 OF 19 Packaging Machinery, LLC 4760 NW 128 Street Miami, Florida, 33054 Phone: (305) 622-4070 N/A



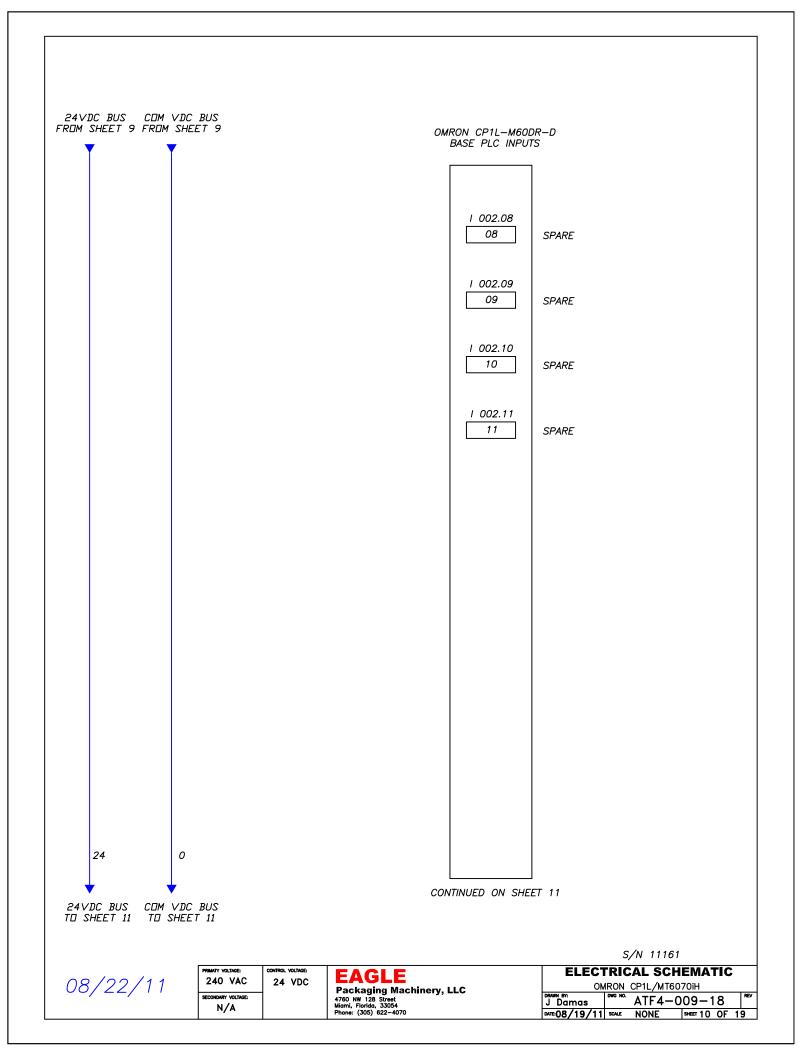
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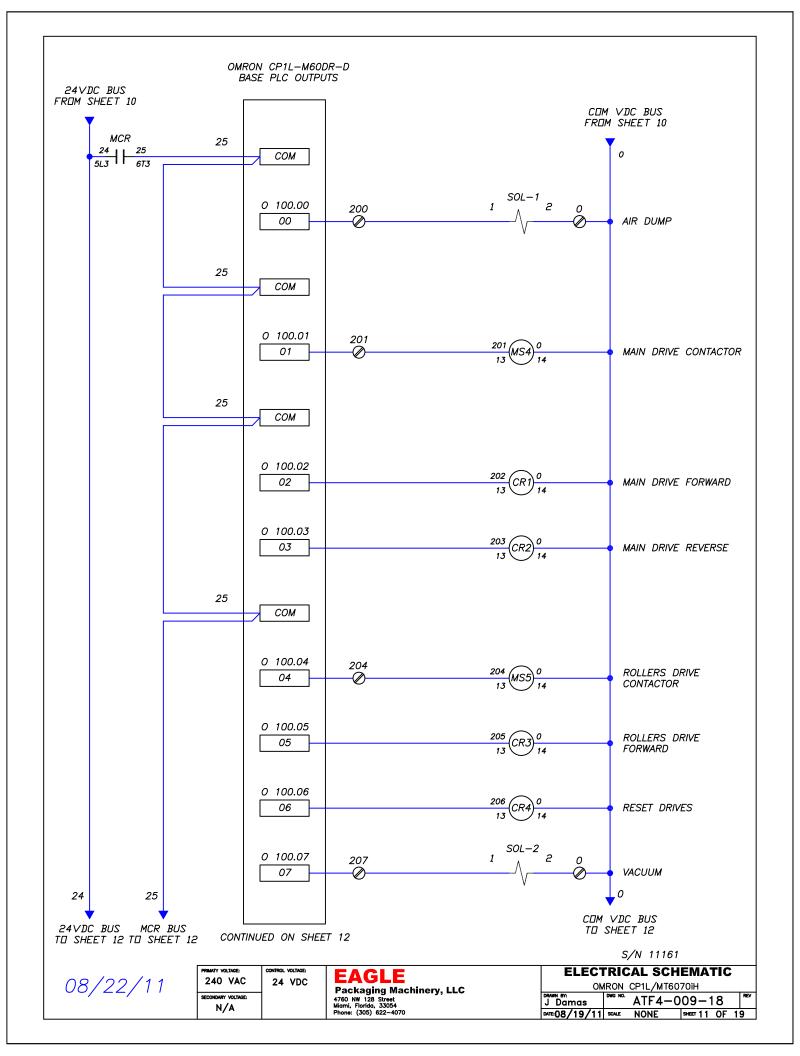
NDARY VOLTAGE: N/A

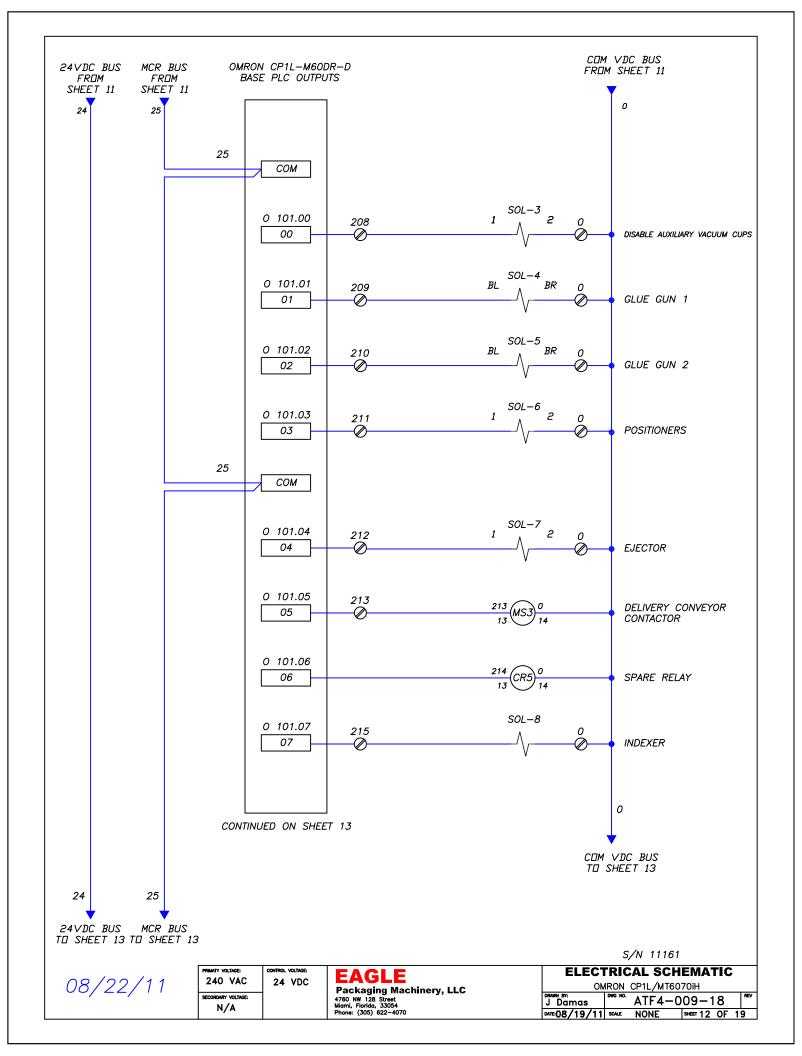
Packaging Machinery, LLC 4760 NW 128 Street Miomi, Florida, 33054 Phone: (305) 622-4070

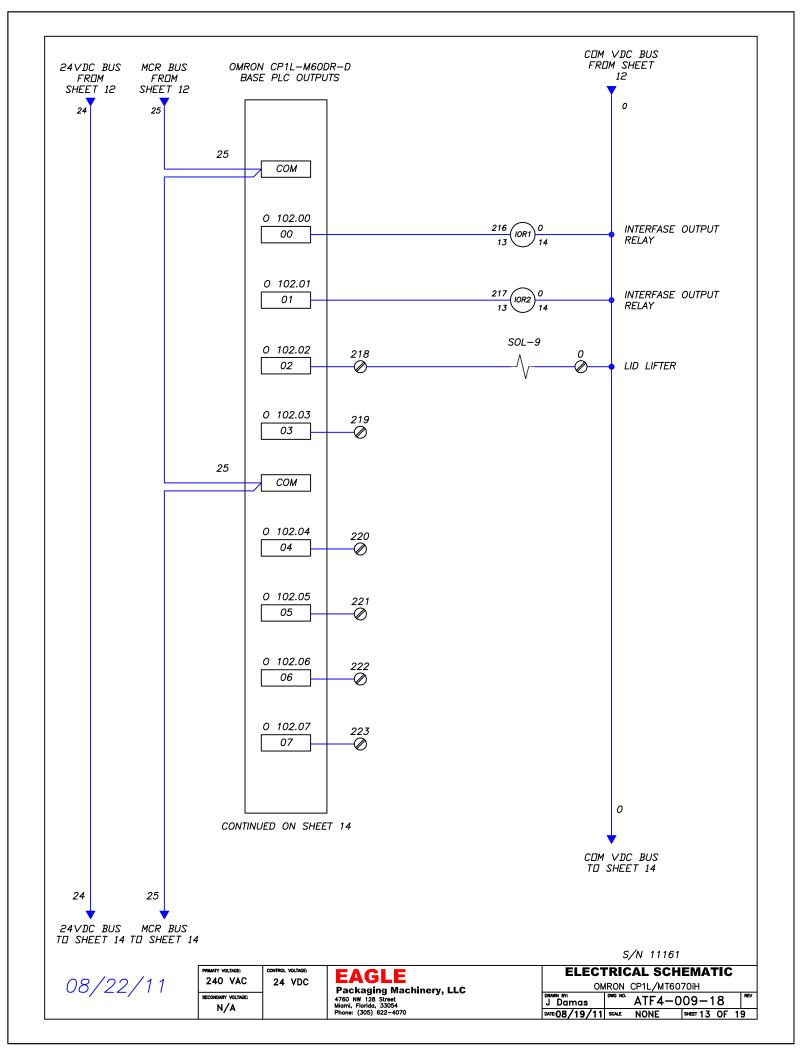
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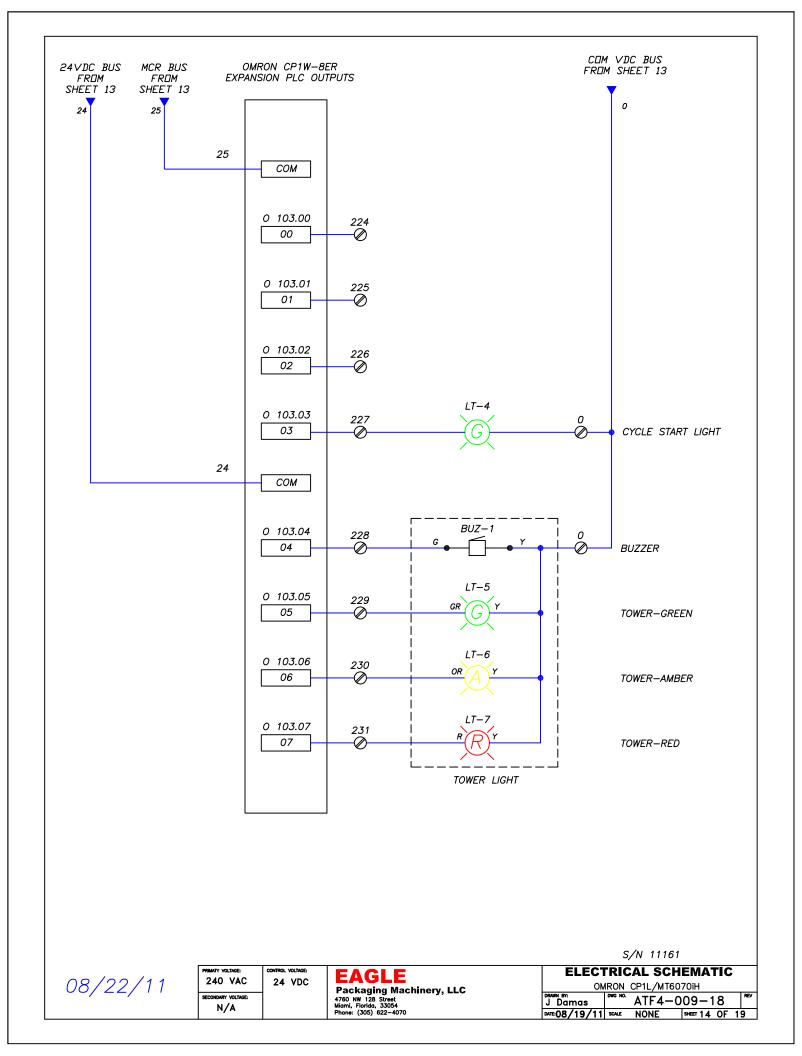
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DATE-08/19/11 | SCALE | NONE | SHEET | 9 OF 19

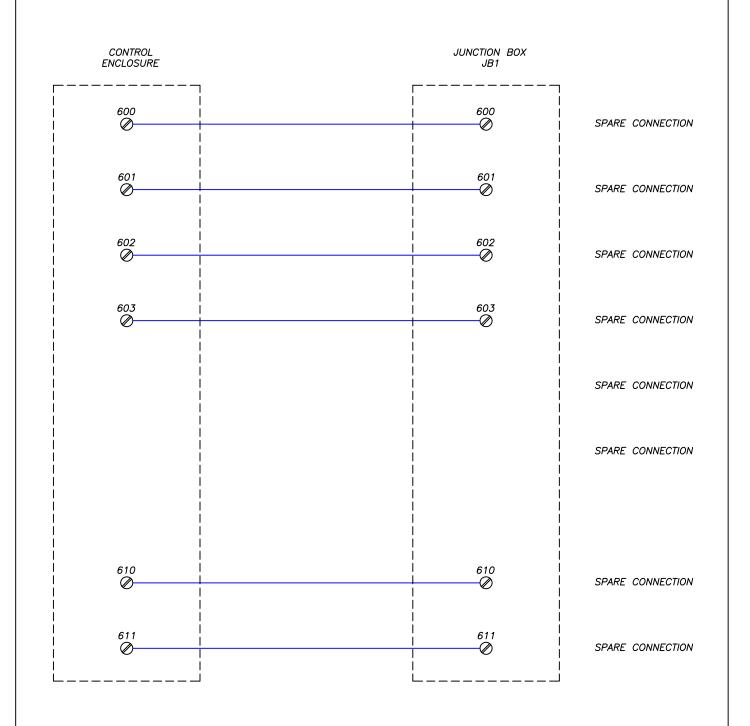












08/22/11

PRIMATY VOLTAGE:

240 VAC

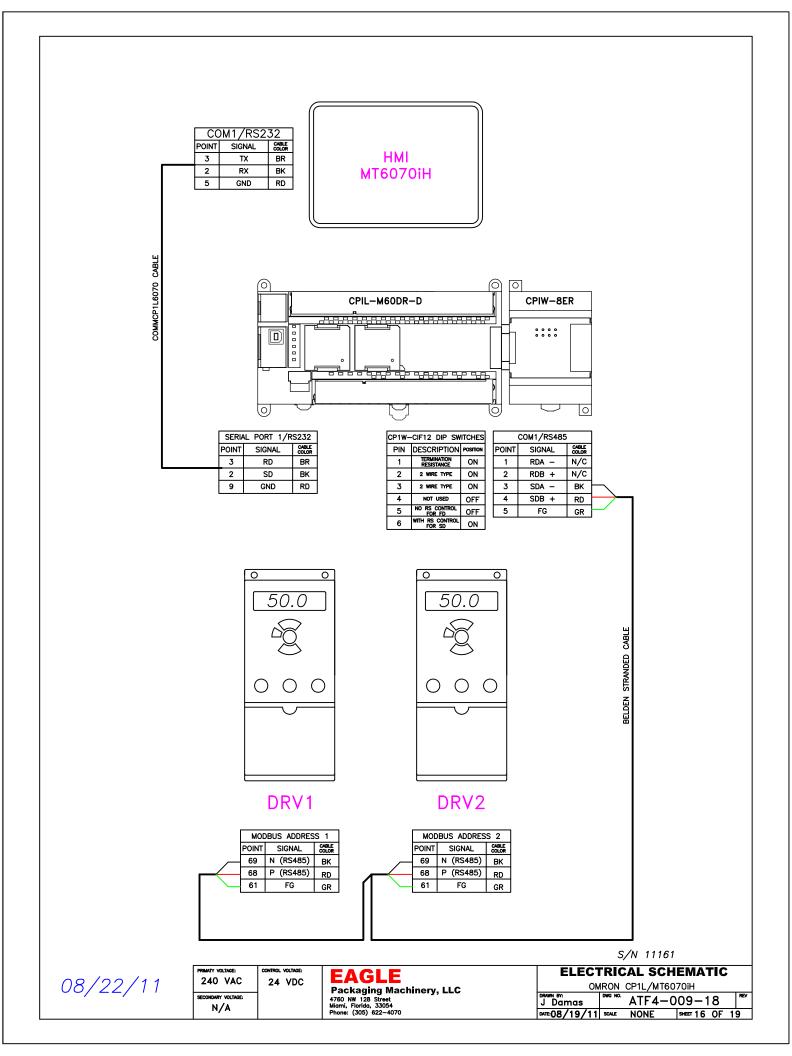
SECONDARY VOLTAGE:

N/A

Packaging Machinery, LLC
4760 NW 128 Street
Miorn, Florido, 33054
Phone: (305) 622-4070

ELECTRICAL	SCHEMATIC
OMRON CP1L	/MT6070iH

| DIVINI BY: | DIVIN NO. | ATF4-009-18 | REV | DIVINI BY: | DIVINI BY:



ASSEMBLY BILL OF MATERIALS				
ITEM	QTY	PART NUMBER	DESCRIPTION	
ENCLOSURE	1	ENCRT30X30X8	MAIN ENCLOSURE	
ENCLOSURE	1	ENCRT24X24X8	MAIN ENCLOSURE	
DS1	1	SWL10-NJ030P3	FUSED DISCONECTED SWITCH	
DS1	1	SWL10-R1	METAL OPERATING SHAFT	
DS1	1	SWL10-HS4E	SWITCH HANDLE	
FU1	3	ADJDL-30	FUSE 30 A	
DB	1	MN1443400	POWER DISTRIBUTION BLOCK	
DB	1	CC1413	POWER DISTRIBUTION BLOCK COVER	
FU2, FU4, FU5	3	AA-FUSEHOLDERCC3P	FUSE HOLDER W/IND, 30A, 3P, 600V	
FU2	3	AD 20ACC	TIME DELAY FUSE, 20A, 600 VAC	
FU4	3	AD-15AFASTCC	FAST ACTING FUSE, 15A, 600 VAC	
FU5	3	AD-10AFASTCC	FAST ACTING FUSE, 10A, 600 VAC	
MS3 TO MS5; MCR	4	C3-300-S09N30ZC10	CONTACTOR	
W23-OL	1	1.6 TO 2.5 MOTOR PROTECTOR	MOTOR PROTECTOR 1.6 TO 2.5 A.	
DRV1	1	132F0012	AC DRIVE 2HP, 240V, 3-PH, MICRO DRIVES	
DRV2	1	132F0010	AC DRIVE 1HP, 240V, 3-PH, MICRO DRIVES	
DRV1, DRV2	2	132B0101	132B0101 DANFOSS LPC CONTROL PANEL	
CR1-5, IIR1-2, IOR1-2	R1-5, IIR1-2, IOR1-2 9 14PINBASE SOCKET 14 PIN		SOCKET 14 PIN	
CR1-5, IIR1-2, IOR1-2	9	24VDC14PIN	24VDC, 5A RELAY	
FU6	1	AD-FUSEHOLDERCC2P	FUSE HOLDER 2P, CLASS CC FUSES, 600 VDC, 30 A	
FU6	2	AD 5ACC	2AMP TIME DELAY FUSE, 600 VDC, CC TYPE	
FU7	1	AD-FUSEHOLDERCC1P	FUSE HOLDER W/IND, CLASS CC FUSES, 600 VDC, 30	
FU7	1 AD 4ACC 4AMP TIME DELAY FUSE, 600 VDC, CC TYPE			
PS	1	PG-DR120-24 POWER SUPPLY		
SS-1	-1 1 TM-SELSWIL SELECTOR SWITCH WHITE- 2 POS, ILLUMI		SELECTOR SWITCH WHITE- 2 POS, ILLUMINATED	
PB-1, PB-2	H-1, PB-2 2 TM-ESTOP MUSHROOM BUTTON, RED - 40MM, ILLUMI		MUSHROOM BUTTON, RED - 40MM, ILLUMINATED	
PB-3	1	TM-GREENPB	PUSH BUTTON, GREEN, MOMENTARY, ILLUMINATED	

CONTINUED ON PAGE 18

S/N 11161

08/22/11

PREMITY VOLTAGE:

240 VAC

SECONDARY VOLTAGE:

N/A

CONTROL VOLTAGE:

24 VDC

Packaging Machinery, LLC
4760 NW 128 Street
Midmi, Florido, 33054
Phone: (305) 622-4070

ELECTRICAL SCHEMATIC

ASSEMBLY BILL OF MATERIALS				
ITEM	QTY	PART NUMBER	DESCRIPTION	
SS-1, PB-1 THRU PB-3	4	TM-BLKCOLLAR	ELECTRICAL COMPONENT MOUNTING COLLAR	
SS-1, PB-1 THRU PB-3	4	TM-BLKND	CONTACT BLOCK, 1 NO, SCREW CLAMP	
PB-1, PB-2	2	TM-BLKNC	CONTACT BLOCK, 1 NC, SCREW CLAMP	
LT-1 THRU LT-4	4	TM-BLKLT	LIGHT MODULE, WHITE, PROTECTED LED 24V	
SS-1	1	TM-TXTONOFF	LEGEND PLATE ON OFF	
PB1, PB2	2	TM-ESTOPLP	LEGEND PLATE E-STOP ROUND	
PB3	1	TM-RESET LP	LEGEND PLATE CYCLE START ENGRAVED	
XS101 THRU XS106	6	SSSE115-12′	SAFETY SWITCH	
HMI	1	MT6070IH	TOUCH SCREEN 7" COLOR TFT	
HMI	1	COMMCP1L6070	OMRON CP1L - MT6070IH COMMUNICATION CABLE	
PLC	1	CP1L-M60DR-D	OMRON PLC 60 I/O 24VDC POWER SUPPLY, RELAY OUTPUTS	
PLC	1	CP1WCIF01	OMRON CP1L RS232C SERIAL MODULE	
PLC	1	CP1WCIF12	OMRON CP1L RS485 SERIAL MODULE	
PLC	1	CP1W-8ER	EXPANSION MODULE USED WITH CP1L, 8 RELAY OUTPUTS	
PROX1, PROX 2	2	DW-AS-624-M18-002	PROXIMITY SWITCH	
PROX 3	1	C3PR0XPNPN0	PROXIMITY SWITCH	
PE1, PE3 THRU PE5	4	QS18VP6DQ5	PHOTOCELL	
PE1, PE3 THRU PE5	4	MTGBKTXQS18	PHOTOCELL MOUNTING BRACKET	
PE2	1	PHQS18VP6LAFQ5	LASER PHOTOCELL	
PE2	1	MTGBKTLASERPE	LASER PHOTOCELL MOUNTING BRACKET	
PE1-4; PROX1-2	6	AD-5MEUROST	M12 Q/D CABLE, STRAIGHT FEMALE, DC PVC, 4PIN/4WIRE	
TOWER LIGHT	1	PATL50MTGPOLE	POLE MOUNTING BRACKET	
TOWER LIGHT	1	PATLT50BASE	TOWER LIGHT BASE AND SOUND MODULE	
TOWER LIGHT	1	PATLT50AMBAR	TOWER LIGHT AMBAR MODULE	
TOWER LIGHT	1	PATLT5ORED TOWER LIGHT RED MODULE		
TOWER LIGHT	1	PATLT50GREEN	TOWER LIGHT GREEN MODULE	
TERMINAL BLOCK 19 TB 2		TB 249-16	END STOP FOR DIN 35 RAIL	

CONTINUED ON PAGE 19

S/N 11161

08/22/11

PREMATY VOLTAGE:
240 VAC
SECONDARY VOLTAGE:
N/A

CONTROL VOLTAGE:
24 VDC

EAGLE
Packaging Machinery, LLC
4760 NW 128 Street
Moint, Florida, 33054
Phone: (305) 622-4070

ELECTRICAL SCHEMATIC

ASSEMBLY BILL OF MATERIALS				
ITEM	QTY	PART NUMBER	DESCRIPTION	
TERMINAL BLOCK	13	TB264-368	END AND INTERMEDIATE PLATE	
TERMINAL BLOCK	110	TB 280-101	TERMINAL BLOCK AWG 28-14	
TERMINAL BLOCK	6	TB 282-101	TERMINAL BLOCK AWG 28-12	
TERMINAL BLOCK		TB 280-402	ADJACENT JUMPER INSULATED	
TERMINAL BLOCK	9	TB 280-107	CONDUCTOR GROND (EARTH)	
TERMINAL BLOCK	2	TB 282-107	CONDUCTOR GROND (EARTH)	
WIRE DUCT	4	ADT1E1522W	WIRE DUCT W/COVER X 24-5/8IN. LONG	
WIRE DUCT	2	ADT1E1522W	WIRE DUCT W/COVER X 26-3/4IN. LONG	
DIM 35 RAIL	1	AAE-DIM-RAL-2M	DIM 35 RAIL X 12-1/4IN. LONG	
DIM 35 RAIL	1	AAE-DIM-RAL-2M	DIM 35 RAIL X 18IN. LONG	
DIM 35 RAIL	1	AAE-DIM-RAL-2M	DIM 35 RAIL X 24IN. LONG	

08/22/11

PRIMATY VOLTAGE: CONTROL VOLTAGE: 240 VAC 24 VDC SECONDARY VOLTAGE: N/A

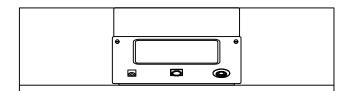
EAGLE Packaging Machinery, LLC 4760 NW 128 Street Miomi, Florida, 33054 Phone: (305) 622-4070 **ELECTRICAL SCHEMATIC**

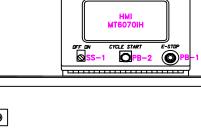
OMRON CP1L/MT6070iH

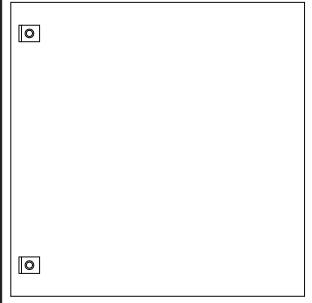
ORIGINAL DISCOMPRISE

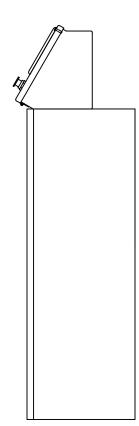
J Damas DISCOMP NO. ATF4-009-18 REV

OMTEO8/19/11 SOLE NONE SHEET 19 OF 19









08/22/11

PREMATY VOLTAGE:

240 VAC
SECONDARY VOLTAGE:
N/A

Packaging Machinery, LLC
4760 NW 128 Street
Moorn, Florida, 33054
Phone: (305) 622–4070

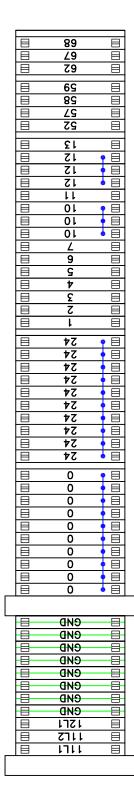
PANEL ASSEMBLY

OMRON CP1L/MT6070iH

DOWN NO. ATF4-009-18

DOWE 08/19/11 SOLE NONE SHEET 1 OF 6

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S/N 11161

08/22/11

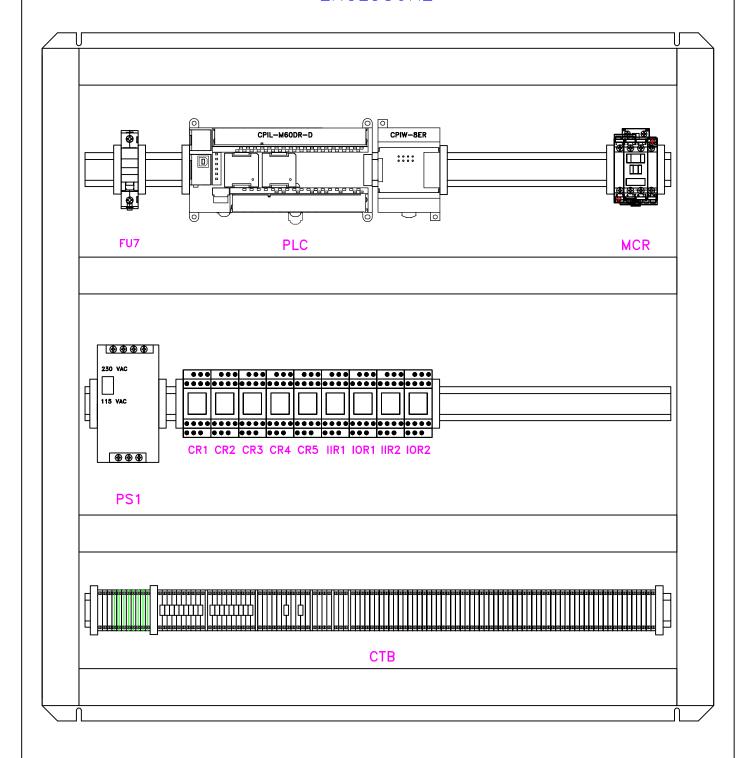
240 VAC 24 VDC N/A

EAGLE Packaging Machinery, LLC 4760 NW 128 Street Miomi, Florida, 33054 Phone: (305) 622-4070 PANEL ASSEMBLY

OMRON CP1L/MT6070iH

| DWG NO. ATF4-009-18 DRAWN BY: J Damas SHEET 2 OF 6 DATE:08/19/11 SCALE NONE

CONTROL ENCLOSURE



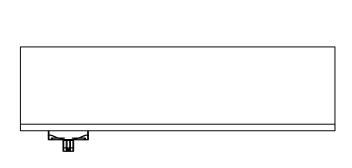
S/N 11161

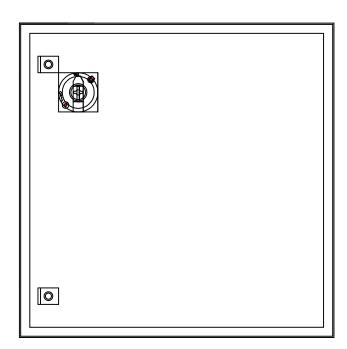
08/22/11

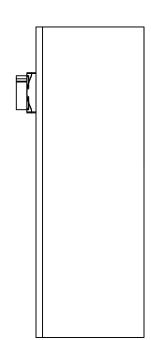
PREMATY VOLTAGE:

240 VAC
SECONDARY VOLTAGE:
N/A

Packaging Machinery, LLC
4760 NW 128 Street
Midmi, Florido, 33054
Phone: (305) 622–4070







08/22/11

PREMITY VOLTAGE:

240 VAC

SECONDARY VOLTAGE:

N/A

CONTROL VOLTAGE:

24 VDC

Packaging Machinery, LLC
4760 NW 128 Street
Miorni, Florida, 33054
Phone: (305) 622–4070

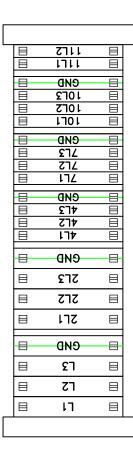
PANEL ASSEMBLY

OMRON CP1L/MT6070iH

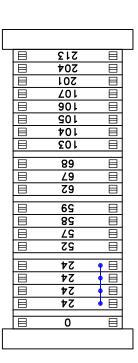
DOWN NO. ATF4-009-18 | "

DWC NO. ATF4-009-18 | "

POWER TERMINAL BLOCKS



CONTROL
TERMINAL BLOCKS



S/N 11161

08/22/11

PRIMATY VOLTAGE:

240 VAC

SECONDARY VOLTAGE:

N/A

CONTROL VOLTAGE:

24 VDC

Packaging Machinery, LLC
4760 NW 128 Street
Midmi, Florida, 33054
Phone: (305) 622–4070

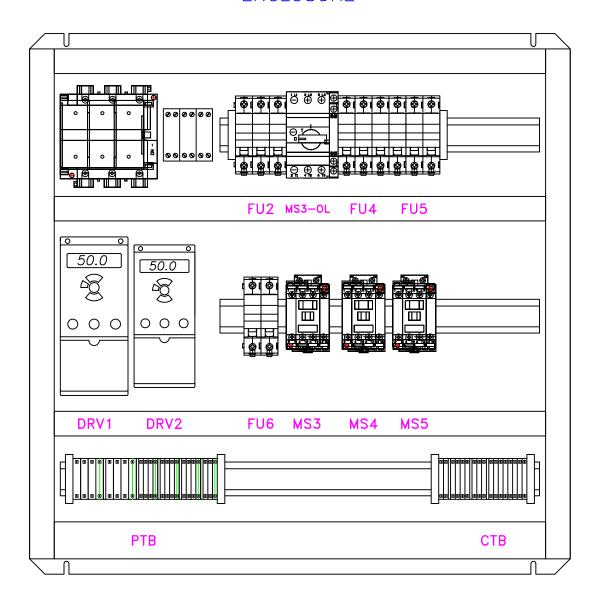
PANEL ASSEMBLY

OMRON CP1L/MT6070iH

DRIVEN BY: DRIVEN BY: ATF4-009-18

DATE:08/19/11 SOUE NONE SHEET 5 OF 6

POWER ENCLOSURE



S/N 11161

08/22/11

PREMATY VOLTAGE:
240 VAC
SECONDARY VOLTAGE:
N/A

Packaging Machinery, LLC
4760 NW 128 Street
Midmi, Florida, 33054
Phone: (305) 622–4070