

OPERATION AND SERVICE MANUAL



RACKLESS CONVEYOR FLIGHT-TYPE DISHMACHINES

MANUFACTURER'S LIMITED WARRANTY (APPLICABLE ONLY IN THE UNITED STATES AND CANADA)

WARRANTY REGISTRATION:

To register your Jackson Dishmachine's warranty go to **jacksonwws.com/warranty** or call 1-888-800-5672. Failure to register the Dishmachine will void the warranty.

ONE YEAR LIMITED PARTS AND LABOR WARRANTY

For a period of one (1) year from date of original installation of a new Jackson Dishmachine (but in no event to exceed eighteen (18) months from date of shipment from Jackson's factory), Jackson WWS, Inc. (Jackson) will repair or replace, at its discretion, any original part that proves defective in materials or workmanship at the time the Dishmachine was purchased; provided that (i) the Dishmachine has not been altered, (ii) the Dishmachine has been properly installed, maintained, and operated under normal use conditions and in accordance with the applicable installation, operation and service manual available on the Jackson website, and (iii) a warranty claim is reported to a Jackson Authorized Service Agency within the warranty period. This warranty includes replacement with Jackson specified genuine replacement parts, purchased directly from a Jackson Authorized Parts Distributor or Service Agency. Use of generic replacement parts may create a hazard and shall void this warranty.

THIS WARRANTY DOES NOT APPLY OUTSIDE THE UNITED STATES AND CANADA.

Jackson will pay the labor to repair or replace a defective original part as a part of the warranty, provided that a Jackson Authorized Service Agency performs the labor. Any repair or replacement work by anyone other than a Jackson Authorized Service Agency is the sole responsibility of the purchaser. Labor coverage is limited to regular hourly rates; Jackson will not pay overtime premiums or emergency service charges.

Accessory components (such as table limit switches, pressure regulators, and drain water tempering kits) that are not installed by Jackson at the factory and are shipped with the Dishmachine carry only a (1) one-year parts warranty. Labor to repair or replace these components is not included in the warranty or covered by Jackson. Booster heaters not manufactured by Jackson are not covered by this warranty but are warranted by their respective manufacturers. This warranty is void if any defect or failure is a direct result from shipping, handling, fire, water, accident, alteration, modification, misuse, abuse, flood, acts of God, burglary, casualty, attempted repair by unauthorized persons, use of replacement parts not authorized by Jackson, improper installation, installation not in accordance with local electrical and plumbing codes, if the serial number has been removed or altered, if the Dishmachine is used for any purpose other than originally intended, or if the equipment is installed for residential use.

Jackson does not authorize any other entity or person, including, without limitation, any entity or person who deals in Jackson Dishmachines, to change this warranty or create any other obligation in connection with Jackson Dishmachines.

TRAVEL LIMITATIONS:

Jackson limits warranty travel time to the customer site within 50 miles of the Jackson authorized service agent's office and during regular business hours. Jackson will not pay for travel time and mileage that exceeds these limits, or any fees such as those for air or boat travel without prior authorization.

REPLACEMENT PARTS WARRANTY:

For a period of (90) ninety days from the date of installation by a Jackson Authorized Service Agency (but in no event to exceed (180) one-hundred-eighty days from the date of purchase from a Jackson Authorized Parts Distributor or Service Agency), Jackson will repair or replace, at its discretion, any Jackson genuine replacement parts that prove defective in materials or workmanship at the time the replacement parts were installed. This warranty does not include paying the labor to repair or replace the replacement part. This warranty is subject to all conditions, exclusions and limitations applicable to the Dishmachine.

MANUFACTURER'S LIMITED WARRANTY (CONT.) (APPLICABLE ONLY IN THE UNITED STATES AND CANADA)

PRODUCT CHANGES:

Jackson reserves the right to make changes in design and specification of any component of the Dishmachine as engineering or necessity requires.

DISCLAIMER OF WARRANTIES:

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, THAT ARE NOT SET FORTH HEREIN, OR THAT EXTEND BEYOND THE DURATION HEREOF.

LIMITATION OF REMEDIES AND LIABILITIES:

YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY SHALL BE PRODUCT REPAIR OR REPLACEMENT AS PROVIDED HEREIN.

UNDER NO CIRCUMSTANCES WILL JACKSON BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THE NATURE OF PENALTIES. JACKSON'S LIABILITY ON ANY CLAIM OF ANY KIND WITH RESPECT TO THE GOODS OR SERVICES COVERED HEREUNDER SHALL IN NO CASE EXCEED THE PRICE OF THE GOODS OR SERVICES OR PART THEREOF WHICH GIVES RISE TO THE CLAIM.

ITEMS NOT COVERED:

THIS WARRANTY DOES NOT COVER (1) ADJUSTMENTS INCLUDING, BUT NOT LIMITED TO, TIMER CAMS, THERMOSTATS, DOORS, TANK HEATER ADJUSTMENTS OR CLUTCHES; (2) AIR FREIGHT OR OVERNIGHT FREIGHT: (3) ANY AMOUNT EXCEEDING ORIGINAL PURCHASE PRICE: (4) CLEANING OF DRAIN VALVES, GAS LINES, RINSE/WASH NOZZLES, STRAINERS, SCREENS, OR SPRAY PIPES; (5) CLEANING OR DELIMING OF THE DISHMACHINE OR ANY COMPONENT INCLUDING, BUT NOT LIMITED TO, WASH ARMS, RINSE ARMS AND STRAINERS; (6) CONDITIONS CAUSED BY THE USE OF INCORRECT (NON-COMMERCIAL) GRADE DETERGENTS; (7) CORROSION FROM CHEMICALS DISPENSED IN EXCESS OF RECOMMENDED CONCENTRATIONS; (8) COSMETIC DAMAGE, INCLUDING BUT NOT LIMITED TO, SCRATCHES, DENTS, CHIPS, AND OTHER DAMAGE TO THE DISHMACHINE FINISHES, UNLESS SUCH DAMAGE RESULTS FROM DEFECTS IN MATERIALS AND WORKMANSHIP AND IS REPORTED TO JACKSON WITHIN (30) THIRTY DAYS FROM THE DATE OF INSTALLATION; (9) DAMAGE CAUSED BY LABOR DISPUTE; (10) DAMAGES RESULTING FROM IMPROPER CONNECTION TO UTILITY SERVICE; (11) DAMAGES RESULTING FROM WATER CONDITIONS, INADEQUATE OR EXCESSIVE WATER PRESSURE, ACCIDENTS, ALTERATIONS, IMPROPER USE, ABUSE, HANDLING, OVERLOADS, TAMPERING, IMPROPER INSTALLATION OR FAILURE TO FOLLOW MAINTENANCE AND OPERATING PROCEDURES; (12) DISCOLORATION, RUST OR OXIDATION OF SURFACES RESULTING FROM CAUSTIC OR CORROSIVE ENVIRONMENTS, INCLUDING, BUT NOT LIMITED TO, HIGH SALT CONCENTRATIONS, HIGH MOISTURE OR HUMIDITY, OR EXPOSURE TO CHEMICALS; (13) ELECTRIC BOOSTERS, FEED LINES, FLEX HOSE, FUSES, GARBAGE DISPOSALS, OR GAS PILOTS; (14) EXCESSIVE LIME, MINERAL, OR ALKALINE BUILDUP; (15) EXPENSES DUE TO DISCONNECTION, DELIVERY, RETURN AND REINSTALLATION; (16) FAILURE OF ELECTRICAL COMPONENTS DUE TO CONNECTION OF CHEMICAL DISPENSING EQUIPMENT INSTALLED BY OTHERS; (17) FAILURE OF FACILITY WATER HEATER TO MAKE TEMPERATURE: (18) FAILURE TO MAINTAIN WATER HARDNESS LOWER THAN 3.0 GRAINS, PH BETWEEN 7.0 AND 8.5 AND TOTAL DISSOLVED SOLIDS BELOW 250 PPM; (19) FAILURE TO COMPLY WITH LOCAL ELECTRICAL BUILDING CODES; (20) LEAKS OR DAMAGE RESULTING FROM SUCH LEAKS CAUSED BY THE INSTALLER, INCLUDING THOSE AT MACHINE TABLE CONNECTIONS, OR BY CONNECTION OF CHEMICAL DISPENSING EQUIPMENT INSTALLED BY OTHERS; (21) OPENING OR CLOSING OF UTILITY SUPPLY VALVES OR SWITCHING OF ELECTRICAL SUPPLY CURRENT; (22) PERFORMANCE OF REGULAR MAINTENANCE AND CLEANING AS OUTLINED IN THE OPERATOR'S GUIDE; (23) REMOVAL OR REINSTALLATION OF INACCESSIBLE DISHMACHINES OR BUILT-IN FIXTURES THAT INTERFERE WITH SERVICING, REMOVAL OR REPLACEMENT OF THE DISHMACHINE; (24) REPLACEMENT WEAR ITEMS INCLUDING, BUT NOT LIMITED TO, CURTAINS, DRAIN BALLS, DOOR GUIDES, GASKETS, O-RINGS, SEALS, SQUEEZE TUBES, AND BEARINGS; (25) RESIDENTIAL USE; (26) USE WITH UTILITY SERVICE OTHER THAN THAT DESIGNATED ON THE RATING PLATE.

REVISION HISTORY

Revision	Date	Made by	Process	Details
А	9-16-20	JH	N/A	Initial release of manual.
В	9-27-22	JH	8889 8897	Added: steam schematic, override switch to pre-wash control box, water connection port to booster plumbing, steam model specs, door panel components, photoeye, and programming section. Changed/corrected: overloads, 230 V booster P/N, I/O module fuse, curtain in final rinse, and high-limit thermostat. Updated: rails and schematics.
С	4-9-24	JH	8858 22-1647 22-1648 22-1649 23-1753	Added: fill hose P/Ns to final rinse section, link to steam booster manual on steam booster page; hinges, door switch, and magnet to door page. Added to unload section: R-L drive motor assemblies, gear drives, limit switch, shut-off arm hardware, spring rod, and spring. Changed photoeye sensor P/N. Corrected page numbers on reference diagram page. Updated: rails and steam schematic.
D	11-22-24	JH	8910	Added: temperature probe and detergent tube inlet plate to wash section; small belt sprocket and new shut-off assembly to unload section. Removed rinse arm nozzles as separate items. Updated schematics.



FlightStar

FlightStar - Electric-heated rackless conveyor dishmachine FlightStar Steam - Steam-heated rackless conveyor dishmachine

The manufacturer provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual open when you call so that our staff can refer you, if necessary, to the proper page. Technical support is not available on holidays.

Contact technical support toll free at 1-888-800-5672.

Technical support is available for service personnel only.

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GUIDES GUIDES

SYMBOLS



- Risk of Injury to Personnel



- Risk of Damage to Equipment



- Risk of Electrical Shock



- Caustic Chemicals



- Reference Data Plate



- Lockout Electrical Power

NOTICE - Important Note



- Instructions Hyperlink

ABBREVIATIONS & ACRONYMS

A - Amps

ANSI - American National Standards Institute

FPM - Feet per Minute

GHT - Garden Hose Thread

GPG - Grains per Gallon

GPH - Gallons per Hour

GPM - Gallons per Minute

HP - Horse Power

Hz - Hertz

ID - Inside Diameter

kW - Kilowatts

MCA - Minimum Circuit Ampacity

MOP - Maximum Overcurrent Protection

NFPA - National Fire Protection Association

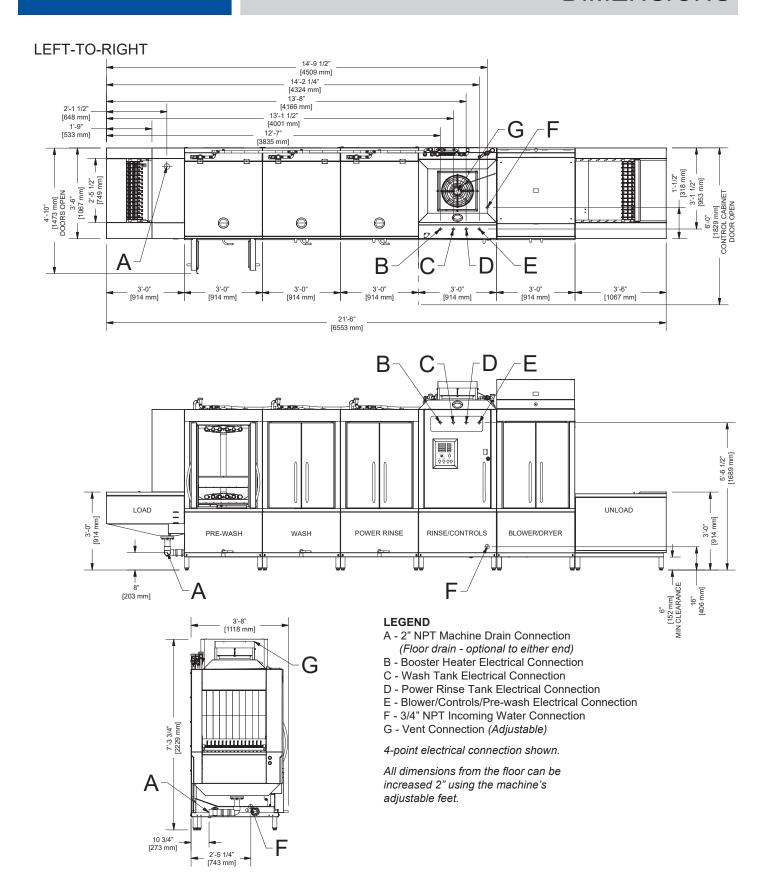
NPT - National Pipe Thread

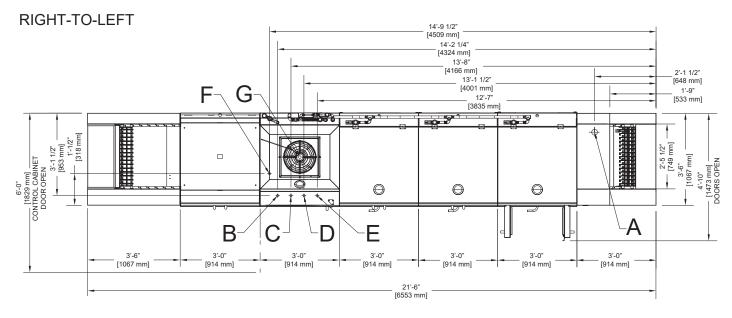
OD - Outside Diameter

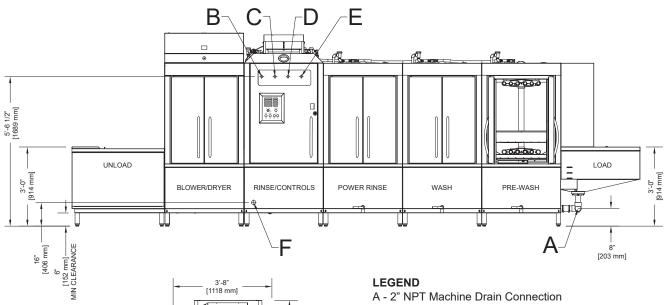
PRV - Pressure Regulating Valve

PSI - Pounds per Square Inch

V - Volts







7'-3 3/4" [2229 mm] _ 10 3/4" [273 mm] 2'-5 1/4"

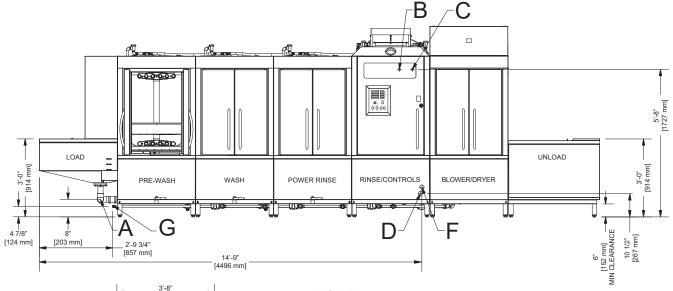
[743 mm]

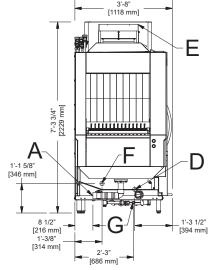
- A 2" NPT Machine Drain Connection (Floor drain - optional to either end)
- B Booster Heater Electrical Connection
- C Wash Tank Electrical Connection
- D Power Rinse Tank Electrical Connection
- E Blower/Controls/Pre-wash Electrical Connection
- F 3/4" NPT Incoming Water Connection
- G Vent Connection (Adjustable)

4-point electrical connection shown.

All dimensions from the floor can be increased 2" using the machine's adjustable feet.

LEFT-TO-RIGHT 14'-9 1/2" [4509 mm] 14'-2 1/4" [4324 mm] 13'-8" [4166 mm] 13'-1 1/2" [4001 mm] 2'-1 1/2" [648 mm] 1'-9" [533 mm] D 12'-7" [3835 mm] 1'-2 1/2" [368 mm] 3'-1 1/2" [953 mm] 2'-5 1/2" [749 mm] 4'-10" — [1473 mm] — DOORS OPEN 3'-6" [1067 mm] \bigcirc \bigcirc \bigcirc B 3'-0" [914 mm] 3'-0" [914 mm] 3'-6" [1067 mm] [914 mm] [914 mm] [914 mm] [914 mm] 21'-6" [6553 mm]





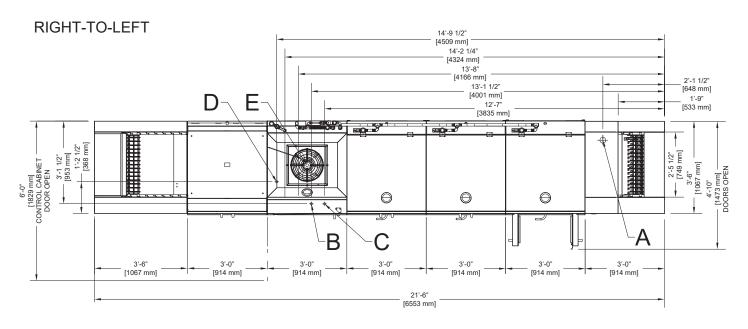
LEGEND

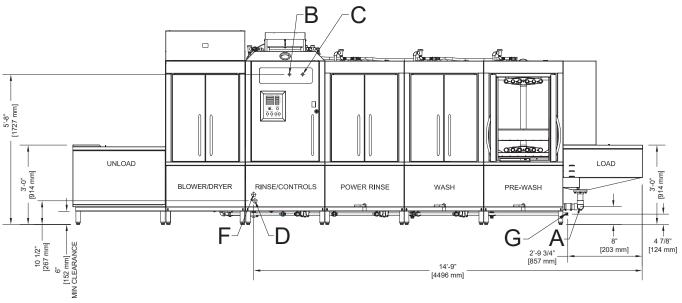
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- E Vent Connection (Adjustable)
- F 3/4" NPT Machine Steam Inlet
- G 3/4" NPT Condensate Return

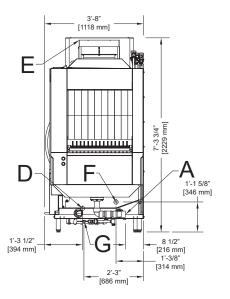
2-point electrical connection shown.

All dimensions from the floor can be increased 2" using the machine's adjustable feet.

STEAM DIMENSIONS







LEGEND

- A 2" NPT Machine Drain Connection (Floor drain optional to either end)
- B Wash/Power Rinse Electrical Connection
- C Blower/Controls/Pre-wash Electrical Connection
- D 3/4" NPT Incoming Water Connection
- E Vent Connection (Adjustable)
- F 3/4" NPT Machine Steam Inlet
- G 3/4" NPT Condensate Return

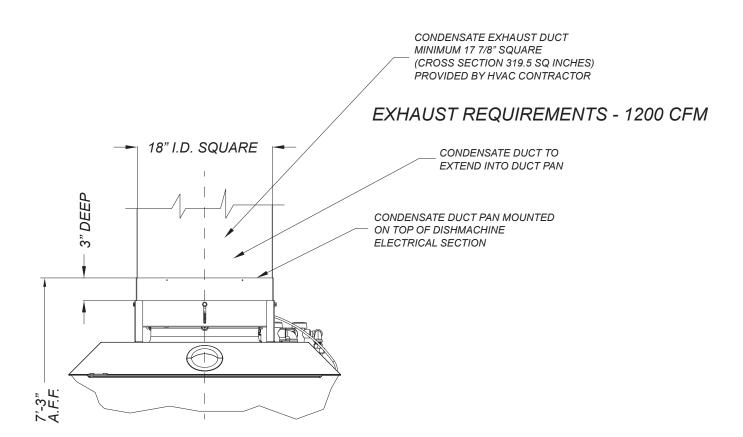
2-point electrical connection shown.

All dimensions from the floor can be increased 2" using the machine's adjustable feet.

EXHAUST FAN DIMENSIONS

EXHAUST FAN DIMENSIONS

NOTICE The condensate removal system built into the dishmachine consists of a fan that will remove 1200 CFM. A single condensate connection must be provided by the installing contractor. This is an indirect connection that must be capable of removing 1200 CFM from the area.



OPERATING PARAMETERS

Operating Capacity:

Dishes per Hour (8.6 FPM	1)	14,964
Dishes per Hour (6.8 FPM	1)	11,832

Tank Capacity (Gallons):

Pre-wash Tank	34.2
Wash Tank	35.9
Rinse Tank	37.5

Pump Capacity (GPM):

Pre-wash Tank	250
Wash Tank	250
Rinse Tank	250

Venting Requirements

(CFM)(100% Capacity)

(INDIRECT)	1200
------------	------

Conveyor Speed (FPM)

High	8.6
Low	6.8

Water Temperatures (°F):

Minimum Inlet Water Temperature	110
·	
Recommended Pre-wash Temperature	140
Minimum Wash Temperature	150
Minimum Power Rinse Temperature	165
Minimum Final Rinse Temperature	180

Other Water Parameters:

Water Flow Pressure (PSI)	15
Standard Rinse (GPM)	0.83
Standard Rinse (GPH)	50
Turbo Rinse (GPM)	1.53
Turbo Rinse (GPH)	92

Steam Booster Requirements (FlightStar Steam):

Steam Flow Pressure (PSI)	10-30
Consumption at 110 °F Incoming Water Temp	317 lbs/hr
Consumption with Blower/Dryer	351 lbs/hr

Click here for the Steam Booster manual.



NOTICE



Always refer to the machine data plate for specific electrical and water requirements. The material provided on this page is for reference only and is subject to change without notice.

ELECTRICAL REQUIREMENTS



All electrical ratings provided in this manual are for reference only. Always refer to the machine data plate to get the exact electrical information for this machine. **All electrical work performed on machines should be done in accordance with applicable local, state, territorial, and national codes**. Work should only be performed by qualified electricians and authorized service agents.

Amperage loads for motors and heaters are indicated on the machine data plate.

The steam booster (FlightStar Steam only) has its own electrical connection and requires a separate service. Amperage loads for machine are listed on the machine data plate. Click on the instruction icon below for the Steam Booster manual.



The electrical configurations of machine components are as follows:

•	Pre-wash Pump Motor	3 HP
•	Wash Pump Motor	3 HP
•	Power Rinse Pump Motor	3 HP
•	Wash Heater 1	12 kW
•	Wash Heater 2	15 kW
•	Power Rinse Heater 1	15 kW
•	Power Rinse Heater 2	15 kW
•	Drive Motor	1/4 HP
•	Exhaust Fan Motor	3.1 kW
•	Blower/Dryer Motor	1.6 kW
•	Blower/Dryer Heater 1	4.5 kW
•	Blower/Dryer Heater 2	4.5 kW
•	Electric Booster Heater	27 kW

Idle Energy Rate 2.31 kW



ELECTRICAL REQUIREMENTS

Local codes may require more stringent protection than what is displayed here and on the data plate. Always verify with your electrical service contractor that your circuit protection is adequate and meets all applicable national and local codes.

Numbers in this manual are for reference and may change without notice.

NOTICE Imbalanced wild leg goes to L3. Also see Motor Rotation section.

Electric Machines with No Blower/Dryer

208 V/60 H	Iz/3-Phase	<u> </u>				
	Heater kW	Pump HP	208 V	MCA	МОР	
Wash Heater & Pump Section	27	3	84.1 A	86.4 A	95 A	
Power Rinse Heater & Pump Section	30	3	92.5 A	94.8 A	100 A	
Motors, Pre-wash Pump, & Controls	-	3	11.3 A	13.6 A	20 A	
Booster Option	27	-	74.9 A	76.2 A	80 A	
230 V/60 H	lz/3-Phase)				
	Heater kW	Pump HP	230 V	MCA	МОР	
Wash Heater & Pump Section	27	3	70.8 A	73.0 A	80 A	
Power Rinse Heater & Pump Section	30	3	77.8 A	79.9 A	85 A	
Motors, Pre-wash Pump, & Controls	-	3	10.7 A	12.9 A	20 A	
Booster Option	27	-	65.0 A	66.3 A	70 A	
460 V/60 H	lz/3-Phase	•				
	Heater kW	Pump HP	460 V	MCA	МОР	
Wash Heater & Pump Section	27	3	35.4 A	36.5 A	40 A	
Power Rinse Heater & Pump Section	30	3	38.9 A	40.0 A	45 A	
Motors, Pre-wash Pump, & Controls	-	3	5.5 A	6.6 A	15 A	
Booster Option	27	-	32.5 A	33.8 A	35 A	

Electric Machines with Blower/Dryer

208 V/60 Hz/3-Phase						
	Heater kW	Pump HP	208 V	MCA	МОР	
Wash Heater & Pump Section	27	3	84.1 A	86.4 A	95 A	
Power Rinse Heater & Pump Section	30	3	92.5 A	94.8 A	100 A	
Motors, Pre-wash Pump, Controls, & Blower/Dryer	9	3	41.5 A	43.8 A	50 A	
Booster Option	27	-	74.9 A	76.2 A	80 A	
230 V/60 Hz/3-Phase						
	Heater kW	Pump HP	230 V	MCA	MOP	
Wash Heater & Pump Section	27	3	70.8 A	73.0 A	80 A	
Power Rinse Heater & Pump Section	30	3	77.8 A	79.9 A	85 A	
Motors, Pre-wash Pump, Controls, & Blower/Dryer	9	3	36.6 A	38.8 A	45 A	
Booster Option	27	-	65.0 A	66.3 A	70 A	

NOTICE Electrical tables show base machine with Pre-wash section and base machine with Pre-wash and Blower/Dryer sections and are for reference only. Use machine data plate for electrical specs specific to machine that was ordered.



ELECTRICAL REQUIREMENTS

Local codes may require more stringent protection than what is displayed here and on the data plate. Always verify with your electrical service contractor that your circuit protection is adequate and meets all applicable national and local codes.

Numbers in this manual are for reference and may change without notice.

NOTICE Imbalanced wild leg goes to L3. Also see Motor Rotation section.

Electric Machines with Blower/Dryer (Cont.)

460 V/60 Hz/3-Phase					
	Heater kW	Pump HP	460 V	MCA	МОР
Wash Heater & Pump Section	27	3	35.4 A	36.5 A	40 A
Power Rinse Heater & Pump Section	30	3	38.9 A	40.0 A	45 A
Motors, Pre-wash Pump, Controls, & Blower/Dryer	9	3	18.9 A	19.9 A	25 A
Booster Option	27	-	32.5 A	33.8 A	35 A

Steam Machines with No Blower/Dryer

208 V/60 Hz/3-Phase					
	Pump HP	208 V	MCA	MOP	
Wash Heater & Power Rinse Section	3	18.4 A	20.7 A	25 A	
Motors, Pre-wash Pump, & Controls	3	11.3 A	13.6 A	20 A	
230 V/60 Hz/3-Phase					
	Pump HP	230 V	MCA	MOP	
Wash Heater & Power Rinse Section	3	17.2 A	19.4 A	25 A	
Motors, Pre-wash Pump, & Controls	3	10.7 A	12.9 A	20 A	
460 V/60 Hz/3-Phase					
	Pump HP	460 V	MCA	MOP	
Wash Heater & Power Rinse Section	3	8.6 A	9.7 A	15 A	
Motors, Pre-wash Pump, & Controls	3	5.5 A	6.6 A	15 A	

Steam Machines with Blower/Dryer

208 V/60 Hz/3-Phase						
	Pump HP	208 V	MCA	МОР		
Wash Heater & Power Rinse Section	3	18.4 A	20.7 A	25 A		
Motors, Pre-wash Pump, Controls, & Blower/Dryer	3	16.5 A	18.8 A	25 A		
230 V/60 Hz/3-Phase						
	Pump HP	230 V	MCA	МОР		
Wash Heater & Power Rinse Section	3	17.2 A	19.4 A	25 A		
Motors, Pre-wash Pump, Controls, & Blower/Dryer	3	15.9 A	18.1 A	25 A		
460 V/60 Hz/3-F	460 V/60 Hz/3-Phase					
	Pump HP	460 V	MCA	МОР		
Wash Heater & Power Rinse Section	3	8.6 A	9.7 A	15 A		
Motors, Pre-wash Pump, Controls, & Blower/Dryer	3	8.5 A	9.6 A	15 A		

INSTALLATION

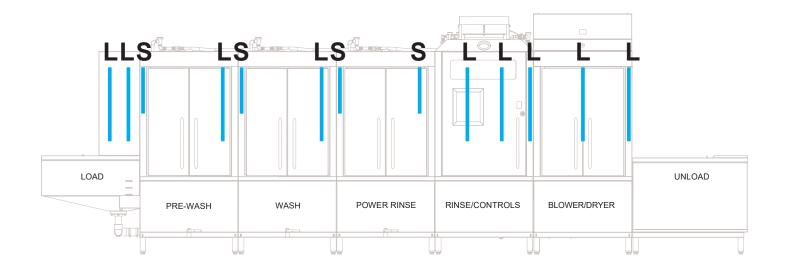
NOTE ON All FlightStar models are accompanied by a certified technician for the initial installation. Problems that arise, as well as questions about the installation, should be directed to this person.

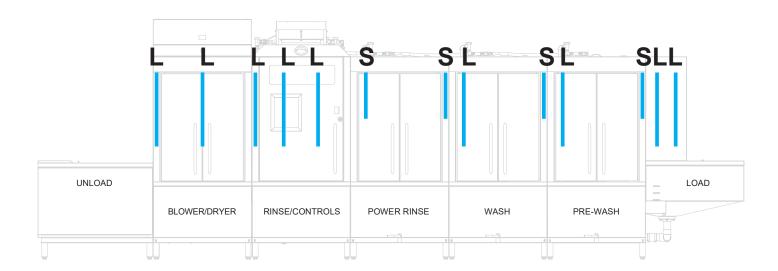
LOCATIONS

CURTAIN The machine has decals marking the curtain locations inside the machine, starting at the load end and ending at the unload end. The illustrations below indicate the size of the curtain to be placed on the curtain hooks provided. If any curtain components are missing, they must be obtained and installed before operation.

> The curtains inside the dishmachine must be installed properly for the machine to operate correctly. Curtains are used to control air currents inside the unit and assist in maintaining the heat necessary to keep energy costs down.

See the Strainers & Curtains page for part numbers.

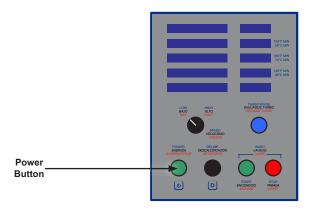




PREPARATION Before operating the machine, verify the following:

- 1. All tools, cleaning rags, and foreign parts are removed from the operation areas of the machine.
- 2. Wash arms, rinse arms, strainers, and curtains are all installed correctly.
- 3. All doors on machine are closed.
- 4. All drain valves are closed.
- 5. Main stop valves for water are open.
- 6. All emergency stop switches are pulled-out.
- 7. Main switch at the control panel is on.

POWER UP To energize the machine, turn on the power at the service breakers. The voltage should have been previously verified as being correct. If not, the voltage must be verified. Press the Power button on the control panel.



For electrical booster operation, ensure that the electric booster heater's power switch is in the ON position. This can be seen when electrical section's lower dress panel is removed. Check that the power light is illuminated.

For steam booster heater operation, ensure switch below front control door is in the ON position. The light beside the switch should be illuminated to indicate ON and the light beside the steam gauge will turn on and off depending on whether steam is cycling to the booster.

PREPARATION

WARE Proper preparation of ware is essential for the smooth, efficient operation of this machine.

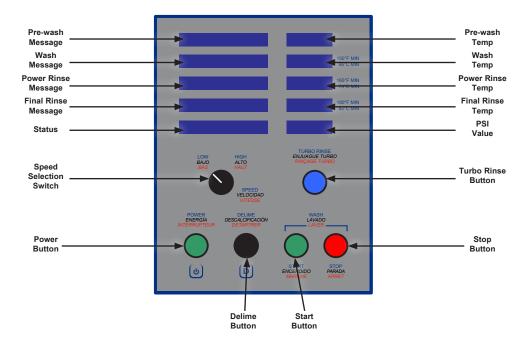
> Any ware placed in the machine should have all solid food waste and scraps removed. Ware should also be sprayed-down before entering the machine.

Place cups and glasses upside-down so they don't hold water during the cycle. Presoak flatware in warm water to help remove food.

INSTRUCTIONS

FILLING THE **MACHINE**

Close all doors. The display will indicate "FILLING" then "HEATING." When the display indicates "READY," the filling and heating cycle is complete and the machine is ready for operation. Press the green Start button on the display panel or at the load or unload ends. Now the conveyor belt can be loaded with ware in the load section.



SPEEDS

CONVEYOR Two conveyor speeds can be selected. During operation, the conveyor speed can be changed from low to high or vice-versa. "Low" moves ware slower through the machine, which is suitable for heavily-soiled dishware. "High" moves ware quicker though the machine, which is suitable for lightly-soiled dishware. The conveyor speed must be selected according to the soiling of the dishware, the belt load, and the washing results.

DAILY MACHINE PREPARATION

By means of the red Stop button (located on the display panel and at each end of the machine), the operation cycle is temporarily interrupted (i.e. the wash pumps and conveyor are switched off); however, the tank heaters continue running. The operation cycle is only temporarily interrupted and remains ready for operation. The machine is in stand-by operation and can start operation at any time. After an interruption of operation, you can continue the wash cycle by pressing the green Start button on the display panel or at the load or unload ends.

Refer to the Preparation section and follow the instructions there. Afterward, check that all of the chemical levels are correct for the expected workload.

INSTRUCTIONS

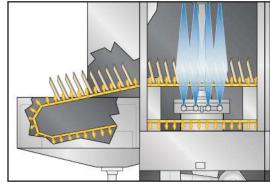
WASHING WARE



WARNING! Ware coming out of the dishmachine will be hot!

To wash, simply place ware on the track at the load end of the machine. Place glasses upside-down and plates with the soiled side facing the unload end.

Place silverware and utensils in appropriate baskets/racks for transport through the machine.



Cut-a-way detail showing direction of plates

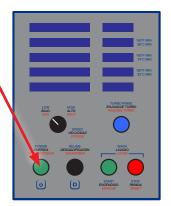
OPERATIONAL INSPECTION

Based on use, the strainers can become clogged with soil and debris as the workday progresses. Operators should regularly inspect the strainers to ensure they have not become clogged. If the strainers are clogged, it will reduce the washing capability of the machine. Instruct operators to clean out the strainers at regular intervals or as required by workload.

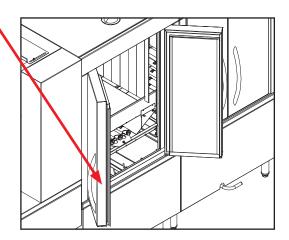
SHUTDOWN & 1. CLEANING



CAUTION! Do not spray the machine, electrical cabinets, or other electrical parts with a water hose or highpressure hose. 1. Push Power button.

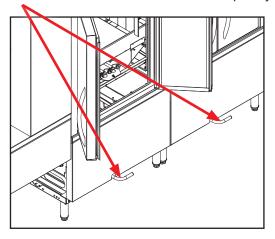


2. Open doors.



CLEANING

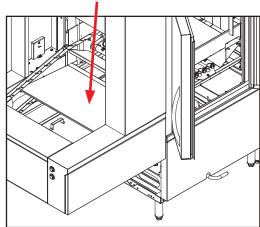
SHUTDOWN & 3. Open drain valves and allow the machine to drain completely.



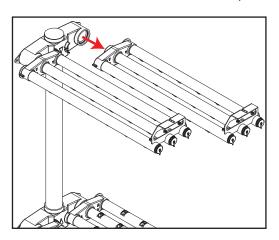
4. Remove all strainers and run-off sheets and clean.



CAUTION! Do NOT beat strainers to remove soil and debris!

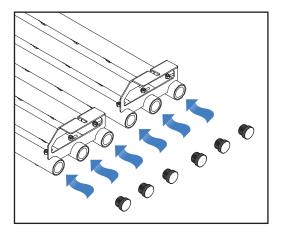


5. Remove wash, pre-wash arms, and power rinse arms and verify the nozzles and arms are free of obstructions. Use a small wire or toothpick to remove debris.

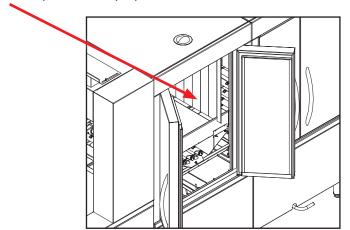


CLEANING

SHUTDOWN & 6. Remove end-caps and flush arms with fresh water.



7. Remove curtains and scrub with a mild detergent and warm water. When replacing curtains, please note proper locations for re-installation.



8. Wipe-out inside of the machine and replace components previously removed.

INSTRUCTIONS

DETERGENT CONTROL

Detergent usage and water hardness are two factors that contribute greatly to how efficiently this machine will operate. Using detergent in the proper amount can become a source of substantial savings. A qualified water treatment specialist can determine what is needed for maximum efficiency from the detergent.

- Hard water greatly affects the performance of the dishmachine, causing the
 amount of detergent required for washing to increase. If the machine is installed
 in an area with hard water (greater than 3 GPG), the manufacturer recommends
 the installation of water treatment equipment (see Plumbing Options page).
- Deposited solids from hard water can cause spotting that will not be removed with a drying agent. Treated water will reduce this occurence.
- Treated water might not be suitable for use in other areas of operation and it
 might be necessary to install a water treatment unit for the water going to the
 machine only. Discuss this option with a qualified water treatment specialist.
- Machine operators should be properly trained on how much detergent is to be used per cycle. Meet with a water treatment specialist and detergent vendor to discuss a complete training program for operators.
- These machines require that chemicals be provided for proper operation and sanitization and require the installation of third-party chemical feeders to introduce these chemicals to the machine. Contact a chemical supplier with any questions.
- Water temperature is an important factor in ensuring the machine functions
 properly. The machine's data plate details what the minimum temperatures must
 be. If minimum requirements are not met, there is a possibility that dishes will not
 be cleaned or sanitized.
- Instruct machine operators to observe the required temperatures and to report
 when they fall below the minimum allowed. A loss of temperature can indicate a
 larger problem.

INSTRUCTIONS

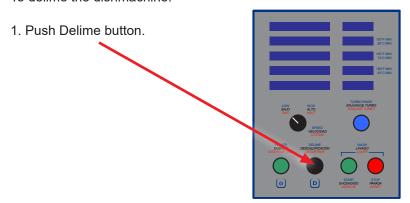
DELIMING In order to maintain the machine at its optimum performance level, lime and corrosion deposits must be removed on a frequent basis. A deliming solution should be available from your chemical supplier. Read and follow all instructions on the label of the deliming solution.

To prepare for the deliming operation:

- 1. Fill the machine.
- 2. Add the correct amount of deliming solution as recommended by the chemical supplier.

NOTICE The water capacity of the various tanks of the machine can be verified on the specification pages of this manual.

To delime the dishmachine:



- 2. Once delime cycle is complete, turn the machine off and open doors.
- 3. Wait five minutes, then inspect inside of the machine. If the machine is not delimed, run another deliming cycle.
- 4. When clean, drain and re-fill the machine.
- 5. Run in regular cycle for 10 minutes to remove residual deliming solution.
- 6. Drain and re-fill the machine.



CAUTION! This equipment is not recommended for use with deionized water or other aggressive fluids. Use of deionized water or other aggressive fluids will result in corrosion and failure of materials and components. Use of deionized water or other aggressive fluids will void the manufacturer's warranty.

ELECTRIC BOOSTER

DELIMING In order to maintain the electric booster heater at its optimum performance level, lime and corrosion deposits must be removed on a frequent basis. To delime, please refer to the instruction manual that came with the electric booster heater. A deliming solution should be available from your chemical supplier. Read and follow all instructions on the label of the deliming solution.

MAINTENANCE

PREVENTATIVE MAINTENANCE

MAINTENANCE **OVERVIEW**

The concept of preventative maintenance is to perform small checks and procedures that will limit the catastrophic failures your machine could experience. A catastrophic failure is anything that will keep the machine from operating for an extended period of time. Dishmachines, regardless of size, are very simple machines and do not require very much in the way of preventative maintenance. Listed here are some maintenance items that will prolong the life of the machine.

PRE-SCRAPPING It cannot be stressed enough that in order for the machine to work at peak efficiency, the introduction of food and soil must be limited. Though the FlightStar is a large machine, it is not a garbage disposal, and it contains several parts that have very small openings. These openings can become clogged very quickly if large food particles are introduced to the machine. Train operating personnel in proper scrapping techniques. This includes scraping excess food from plates and bowls and removing straws from glasses.

> Some ware might require soaking before being placed in the machine, especially silverware and casserole dishes. Soaking helps loosen stuck-on food particles and aids the machine in removing such soil. Sink soak options are available and can be discussed with your authorized dealer.

STRAINERS Machines should be cleaned at least daily and one of the most important aspects of this task is the removal, cleaning, and proper replacement of the various strainers located throughout the machine. Strainers are added to try and prevent any debris from getting inside the pumps or in the arms of the machine. Both the pumps and the arms have very close tolerances manufactured into their design in order to deliver optimum performance.

There are generally three problems associated with strainers:

- 1. Not removed for cleaning. Many operators are simply unaware that the strainers can and should be removed for cleaning. How often this should be done is based on usage and is generally something that can be determined with experience. It is important, however, to not only tell operators about the strainers, but to show them where they are at and remind them that they should be cleaned regularly.
- 2. Damaged strainers. Many times the first impulse for cleaning strainers is to take them and beat them on the side of a garbage can. The strainers are made from stainless steel and delivering such blows to them will eventually warp them. A warped strainer does not sit flush and creates gaps that debris and soil can get through. The proper method of cleaning a strainer is to wipe it out and then rinse it with water to get any debris out. Remember that it is much easier and inexpensive to clean out a strainer than it is to replace a pump!



CAUTION! Do NOT beat strainers to remove soil and debris!

MAINTENANCE

PREVENTATIVE MAINTENANCE

STRAINERS 3.

3. Missing strainers. It is easy to forget to put the strainers back after removing them, so it is important to train operating personnel on the importance of putting everything back when they are finished. If the strainer was not important, it would never have been incorporated into the machine design. Strainers are implemented to prevent failure of the more expensive components of the dishmachine (e.g. pumps) and should always be replaced before operating the machine. The manufacturer strongly recommends that you do not operate the machine without the strainers as doing so not only allows damage to occur to the machine, but could also void the warranty. Train personnel to report whenever a strainer is missing or damaged so that replacements can be ordered immediately.

DAILY MAINTENANCE

DAILY Drain and clean the dishmachine per the instructions in this manual. During cleaning, any items that appear to be broken or failed should be reported to authorized service personnel.

WEEKLY 1. MAINTENANCE

- Delime the machine. The deliming agent that you use might require more or less frequency in application. Because water conditions vary from installation to installation, it might be necessary to delime the machine more or less often. Follow the chemical supplier's instructions regarding frequency of application and adjust the maintenance schedule as required.
- 2. Verify there are no leaks. This includes inspecting the integrity of all gaskets, including the ones inside the machine, as well as ensuring that none of the silicone used between the individual sections has frayed or been removed. Any torn gaskets should be immediately replaced. Re-apply silicone as required. The machine should be completely turned off and drained for this procedure so that gaskets in the lower parts of the tanks can be examined.
- 3. Verify the operation of the emergency stop switches. Start the machine with all personnel standing clear and push an emergency stop switch to verify that it stops the machine. Do this for each switch. The emergency stop switch stops the conveyor belt and the pumps, but the heaters remain on. If the emergency stop switch fails to stop the machine, then the wiring to the switch should be verified. If, according to the schematic, the switch is wired correctly, then it is most likely faulty and should be replaced. Immediately inform operating personnel of the defect and instruct them as to where other emergency stop switches are as well as the main stop switch on the front control panel.



WARNING! Hot water can drip as doors are opened.

4. Verify the operation of the door switches. Start the machine with all personnel standing clear and open each door one at a time to verify that the unit shuts off. Do this for all pre-wash, wash, and power rinse doors. The door switches stop the conveyor belt and the pumps, but the heaters remain on.

PREVENTATIVE MAINTENANCE

WEEKLY 5. **MAINTENANCE**

- Verify the pre-wash, wash, and power rinse doors open all of the way.
- Verify the operation of the temperature display. Operate the machine normally and ensure the display cycles as it is supposed to, through each required parameter. If it does not cycle or it appears that it's not reading the temperature, it must be replaced.
- 7. Verify the operation of Start and Stop buttons. With the machine energized, push the Start button on the control panel and allow the machine to start. After approximately 60 seconds, press the stop button. The machine should stop. Verify the lights in the buttons are working as well. Any problems should be investigated immediately to see if components need to be replaced. Perform this check on the buttons located at the load and unload ends as well.
- 8. Verify drive motor stop switch and slide stop switches.

MAINTENANCE

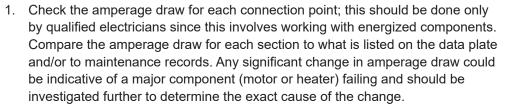
- MONTHLY 1. Inspect the drive gears for missing or damaged teeth. If there has been any sort of damage, the gear should be replaced immediately.
 - 2. Inspect seals used in final rinse arms to ensure they are in good condition. Any that have nicks, tears, or are missing should be replaced.
 - 3. Inspect the conveyor drive belt for damaged or missing pegs. Any that are suspect should be replaced. Loss of pegs decreases the number of dishes per hour that the machine will wash. Check rod end-caps and ensure that none are missing.
 - 4. Visual inspection of electrical boxes. With power to the unit shut-off at the service breaker, open the main control box and the control boxes for each section and make a visual inspection of the components. Verify there are no loose wires, there is no carbon scoring, and that all components are secure. Replace the covers and re-energize the machine if no problems are found. Correct any deficiencies before returning the machine to an operating status.
 - 5. Verify the conveyor operates in both high and low speeds. Start the machine as normal, ensuring that all personnel are clear. Put the machine in low speed using the Speed Selector Switch located on the front panel. Allow the machine to operate normally for five minutes, ensuring the speed appears to remain constant. Without turning off the machine, turn the switch to the high speed position and allow to run for another five minutes, checking for a constant speed. Once completed, place the selector switch in the desired position and turn the machine off.
 - 6. Inspect the vacuum breakers to ensure the valve disc is not damaged, limed up, or misaligned. With power and water secured to the machine, verify the small disc inside the vacuum breakers move freely and seat well.
 - 7. Inspect and clean the steam supply y-strainer on steam models.

MAINTENANCE

PREVENTATIVE MAINTENANCE

QUARTERLY 1. **MAINTENANCE**







- 2. Verify the machine is maintaining proper temperatures as indicated on the machine data plate. Start the machine and allow it to run in low speed with the exhaust fan and blower turned on. Do not load any ware onto the machine. Let run for approximately 15 minutes before starting to observe temperatures. Compare the temperatures to what is listed on the machine data plate. If there is a discrepancy, investigate and correct.
- 3. Verify the machine is still level. A level machine is required for peak efficiency as water levels can be affected due to any incline. This should be done with the machine off, cooled down, and drained.
- 4. Delime the electric booster heater. In order to maintain the electric booster heater at its optimum performance level, lime and corrosion deposits must be removed on a frequent basis. To delime, refer to the instruction manual that came with the electric booster heater. A deliming solution should be available from your chemical supplier. Read and follow all instructions on the label of the deliming solution.

ANNUAL 1. **MAINTENANCE**

- The manufacturer recommends that at least once a year a general, overall inspection of the machine is performed. With the machine drained and power secured at the service breaker, service personnel should look for any items needing addressed that might not be specifically pointed out in the preventative maintenance procedures. Examples of things to look for include:
 - Loose screws.
 - Frayed wires.
 - Broken lights or switches.
 - Torn curtains.

NOTICE Experience will dictate to service personnel specific items that should be examined and the manufacturer encourages scheduling inspections as often as needed to ensure any problems do not become catastrophic.

MAINTENANCE

PREVENTATIVE MAINTENANCE

ITEMS THAT 1. SHOULD NOT REQUIRE MAINTENANCE

- . Thermostats the thermostats are factory-set so the machine will operate in accordance with accepted regulatory parameters. Upon initial installation, the manufacturer's representative might adjust the thermostats if required, but otherwise they should never need to be corrected again. If thermostats need adjusted to maintain the same temperatures, there is most likely a problem somewhere else. Scale build-up in the tub and on the heaters can affect the operation of the machine as can a variety of other factors. Thermostats, once they fail, cannot be repaired and should be replaced.
- Gear drive the drive motor is connected to a gear drive that is oil-filled. The
 manufacturer does not recommend draining the gear drive for any reason. If
 the gear drive fails, then it should be replaced, not repaired. If for any reason
 the oil is drained from the gear drive, the component should be replaced.

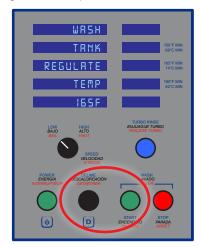
ITEMS OF NOTE 1.

- The electric booster heater is a third-party, self-contained unit and should come with its own instruction manual. Refer to that manual for any information regarding troubleshooting or maintenance.
- If the display indicates a motor fault, the machine must be shut down completely and service personnel contacted. A motor fault can be for any number of reasons and could apply to any one or more of the motors on the machine. Do not operate the machine if the display indicates a motor fault.

PROGRAMMING

PROGRAMMING 1. Press and hold delime and start buttons until "SETUP USER" flashes. Display will then show first programmable parameter.

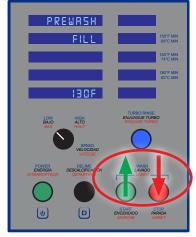
To access programming, machine should be on and not in cycle.



PARAMETERS

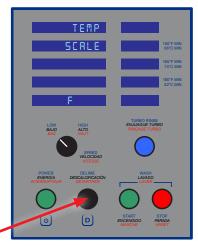
PARAMETER	MAX	MIN	PARAMETER	MAX	MIN
Wash Regulate Temperature	188 °F (87 °C)	140 °F (60 °C)	Dwell On Speed Change	500 Milliseconds	100 Milliseconds
Wash Low Temperature Alarm	188 °F (87 °C)	140 °F (60 °C)	Belt Prestart Delay	2 Minutes	0 Seconds
Power Rinse Regulate Temperature	188 °F (87 °C)	140 °F (60 °C)	Shutoff Load Disable Dwell	500 Milliseconds	100 Milliseconds
Power Rinse Low Temperature Alarm	188 °F (87 °C)	140 °F (60 °C)	Prewash (On is Default)	N/A	N/A
Final Rinse Low Temperature Alarm	188 °F (87 °C)	140 °F (60 °C)	Prewash Fill (On is Default)	N/A	N/A
Photo Eye Initial Wait	3 Minutes	5 Seconds	Prewash Fill Temperature	149 °F (65 °C)	99 °F (37 °C)
Photo Eye Restart Timeout	15 Minutes	0 Seconds	Full Conveyor Travel Duration	200 Seconds	30 Seconds
Photo Eye to Final Rinse On	5 Minutes	5 Seconds	Float Bounce Wait	20 Seconds	1 Second
Photo Eye To Rinse Shutoff	5 Minutes	5 Seconds	Temp Scale (°F is Default)	N/A	N/A
Conveyor Shutoff Restart Wait	5 Minutes	5 Seconds	Language (English is Default)	N/A	N/A
Conveyor Shutoff Idle Shutoff	5 Minutes	5 Seconds	PreWash Temperature Offset	3	-3
Delime Duration	30 Minutes	3 Minutes	Wash Temperature Offset	3	-3
Power Off Internal Fan	10 Minutes	0 Seconds	Power Rinse Temperature Offset	3	-3
Power Off External Fan	10 Minutes	0 Seconds	Final Rinse Temperature Offset	3	-3
Dryer Fan Delay	5 Minutes	0 Seconds	Spare T5 T6 Offset	3	-3
Reverse Belt Duration	2000 Milliseconds	250 Milliseconds	Dryer (On is Default)	N/A	N/A

2. Start and stop buttons act as "up-arrow" and "down-arrow" buttons to move through parameters.



PROGRAMMING 3. Repeat until desired parameter is reached.

To access programming, machine should be on and not in cycle.



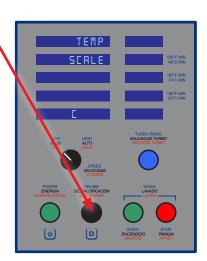
- 4. Press delime button until parameter value starts flashing.
- 5. Use start and stop buttons to change parameter to desired value.

TEMP SCALE (b) D

Firmly press and hold button for one second then release.

6. Press delime button to save.

Firmly press and hold button for one second then release.



7. Press and hold delime and start buttons until display goes to operation mode.

TROUBLESHOOTING

TROUBLESHOOTING





WARNING! Inspection, testing, and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the unit have power to it and live electrical components be exposed. USE EXTREME CAUTION WHEN TESTING THE MACHINE.

OBSERVATION	POSSIBLE CAUSE	REMEDY
Nothing on machine operates.	Machine is not wired correctly to incoming power source.	Have an electrician verify wiring.
Machine is ON and the power	2. Machine circuit breakers are tripped.	Reset the circuit breakers. If they trip again, contact an electrician to verify the machine amp draw.
		3. Reset the service breakers. If they trip again, contact an electrician to verify the machine amp draw.
Machine will not fill. Machine	1. No water supply to machine.	Verify water lines have been connected to the machine.
is ON and the power indicator	Incoming water solenoid valve damaged/faulty.	2. Verify the valve is operating. If not, replace.
light is ON.	3. Water level indicators are giving a false reading.	See if the green "Tank Filled" light is on. Verify the wiring of the water level indicators and if correct, replace component.
Low wash tank/	Electric booster heater not energized.	Verify electric booster heater is energized.
power rinse tank temperature.	Low incoming water temperature.	Verify the incoming water temperature matches what is indicated on the machine data plate.
	Heater not energizing.	3. Verify the wash tank heater is operating. If not, replace.
	4. Low incoming voltage.	4. Have an electrician verify the power coming to the machine is the same as indicated on the data plate.
	5. Heater(s) has scale and lime build-up.	5. Try deliming the machine. If this does not correct the problem, the heater(s) should be replaced.
Inadequate rinse.	1. Low incoming water pressure.	1.Verify that incoming water pressure to rinse tank during fill is 15 PSI.
	Incoming water solenoid is clogged.	Verify that debris is not trapped in valve. If so, remove debris.
	3. Final rinse pump not operating.	Replace pressure transducer.
	4. Incoming water y-strainer is clogged.	4. Remove debris from y-strainer.
	5. Clogged rinse arm nozzles.	5. Verify nozzles are not clogged with debris. If so, remove debris.

TROUBLESHOOTING

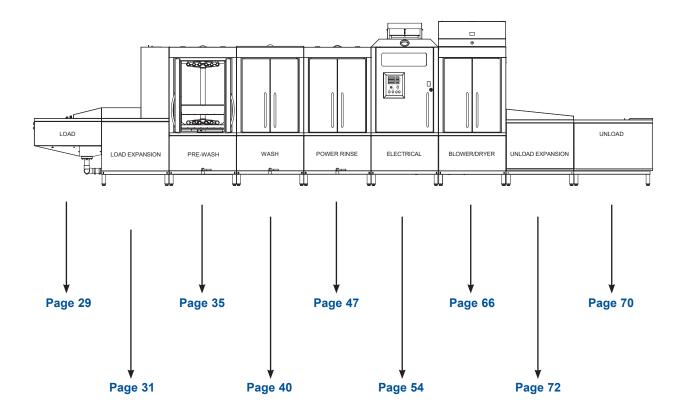
TROUBLESHOOTING

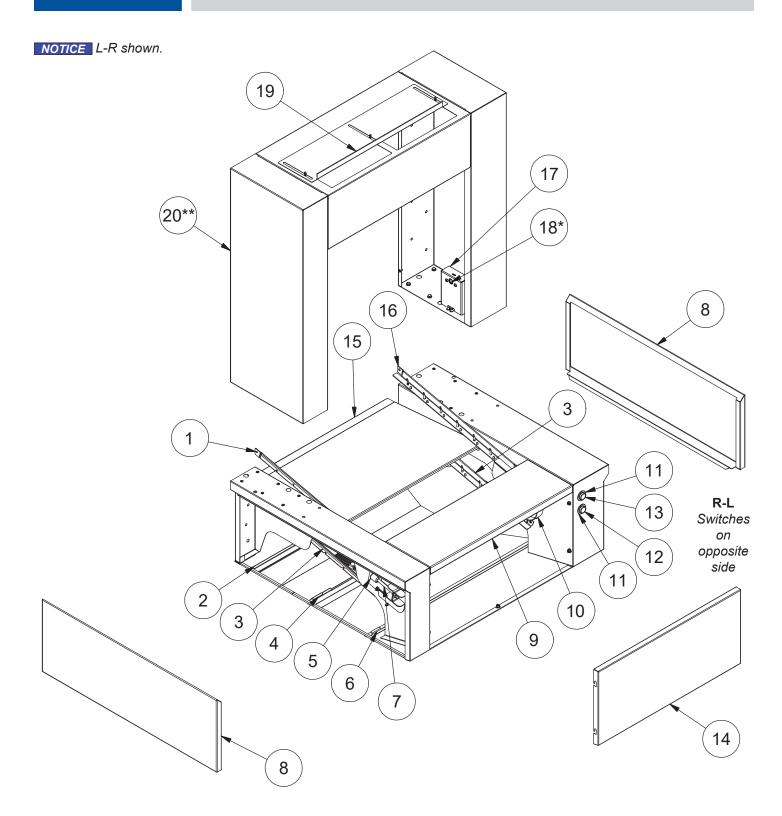
OBSERVATION	POSSIBLE CAUSE	REMEDY
Ware is coming out dirty.	Improper pre-scapping procedures.	Verify proper pre-scrapping procedures are being followed.
Cat any.	Verify the chemical concentrations are correct.	2. See the Detergent Control page in this manual. If there appears to be a problem with the chemicals, contact your chemical representative.
	 3. Wash pumps are clogged with debris. 4. Water level is too low and pumps are cavitating (drawing in air). 5. Strainers are clogged with debris. 6. Pre-wash, wash, or power rinse nozzles are clogged. 	 Remove debris if pump is not permanently damaged. Verify water levels are correct by observing whether or not the "Tank Filled" light is illuminated. If so and problem continues, visually verify the water level is correct. Remove and clean strainers. Verify nozzles are not clogged with debris. If so, remove debris.
An excessive amount of vapor	Exhaust fan is turned off as well as the room ventilation.	Ensure the exhaust fan is turned on as well as the room ventilation.
is exiting the machine through the load and/or unload ends.	Incorrect placement of curtains within the machine.	
unioad ends.	3. Water temperatures too hot.	Verify water temperatures and ensure they comply with what is marked on the machine data plate
	4. Incorrect damper positioning.	Check correct damper positioning in the electrical section.
Machine continues to fill and does	No water coming to the machine.	Verify the power is on and the water supply is also turned on.
not stop. Green "Tank Filled"	2. Drain valves are open.	2. Verify the position of the valves and shut if necessary.
light does not come on.	3. Water level controls are faulty.	Verify the wiring of the water level controls to the schematic and if correct, replace.
	4. Leak in the tank.	Inspect under the machine to verify there are no holes or cracks.
	Drain valve indicates closed but is not.	5. Replace or repair the drain valve.
	Level control sensors out of adjustment.	Level control sensors might need the sensitivity adjusted.

TROUBLESHOOTING

TROUBLESHOOTING

OBSERVATION	POSSIBLE CAUSE	REMEDY
Water level will not remain	1. Drain valve is open and draining the tub.	1.Verify all drain valves are shut.
constant (tanks appear	2. Low water pressure.	Verify incoming water is flowing to the machine and at the pressure indicated on the data plate.
to be losing water).	3. Machine is not level.	3. Verify the machine is level.
	4. Faulty water level control or control probe.	4. Replace as required.
	5. Check placement of splash shield run-offs.	5. Adjust if necessary.
	6. Check curtain placement.	6. Adjust if necessary.
Machine is running and	Power might have been lost to the machine.	If the control box lights are on, it is safe to assume there is power.
suddenly stops. Motor fault light could be on.	2. Conveyor belt bound-up or jammed during operation.	2. Ensure there are no obvious jams or obstructions preventing the conveyor belt from moving. It might be necessary to remove all ware from the conveyor before proceeding. Try pulling up on the conveyor belt at various locations in the event it became misaligned. Be careful, this could cause the conveyor belt to snap back into place instantly! Another sign of a jammed belt is the conveyor drive motor will be pulled against the machine and its spring bracket will be compressed.
	3. Conveyor drive chain is broken or has come off.	3. Secure the machine and remove the cover to expose the drive motor, gearing, and chain. If the chain is broken, it might be possible to put it back together; otherwise a new one should be ordered.
	Conveyor drive motor faulty.	4. Chain or drive motor might need to be replaced.
	5. Failure of drive motor switch or slide stop switch.	5. Replace switch.
Conveyor not running.	1. Faulty photoeye sensor.	Use override switch on pre-wash control box to override sensor until it can be replaced.



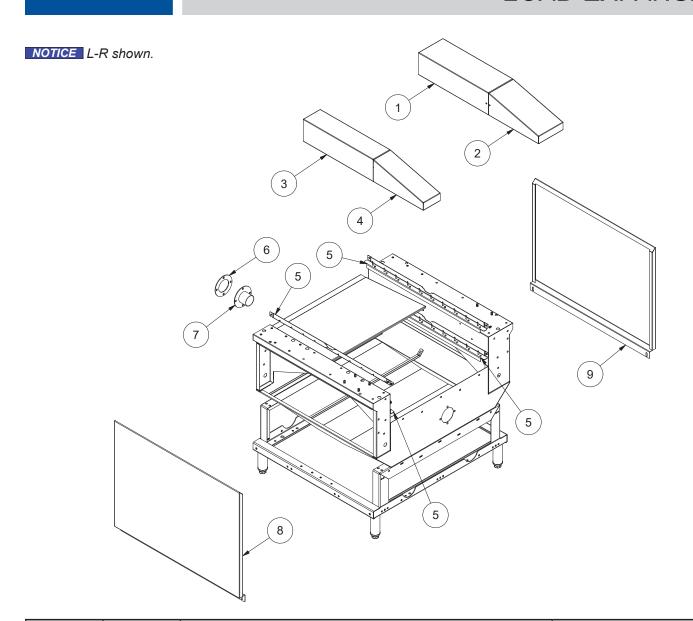


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Upper Rail Two	05700-004-61-01
2	1	Screen Rail Three	05700-004-65-53
3	2	Lower Rail	05700-004-61-02
4	1	Screen Rail Two	05700-004-65-52
5	1	Adjuster, Conveyor, Left	05700-004-61-05
6	1	Screen Rail One	05700-004-65-51
7	2	Bolt, 3/8-16 x 5"	05700-003-52-34
8	2	Side Cover	05700-004-66-80
9	1	End Cover, Top	05700-004-66-79
10	1	Adjuster, Conveyor, Right	05700-004-61-08
11	2	Snap Bushing	05975-003-10-46
12	1	Stop Switch	05930-004-72-99
13	1	Start Switch	05930-004-72-98
14	1	End Cover	05700-004-66-78
15	1	Runoff	05700-004-61-18
16	1	Upper Rail One	05700-004-61-03
17	2 2	Optical Cover Bracket, Optical Cover (Not Shown)	05700-005-06-03 05700-005-05-98
18*	2	Sensor	06401-005-06-02*
19	1	Damper	05700-004-72-59
20**	1	Shroud, L-R Complete Shroud Assembly, L-R (Items 17–20) Shroud, R-L Complete Shroud Assembly, R-L (Items 17–20)	05700-004-60-85 05700-004-78-18 05700-004-76-28 05700-004-79-82

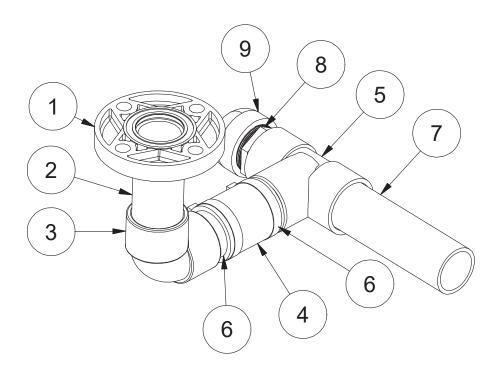
^{*}Order 06401-005-05-97 for machines with serial numbers before 22G407712.

^{**}If Load Expansion is used, Shroud is located on expansion section.

LOAD EXPANSION



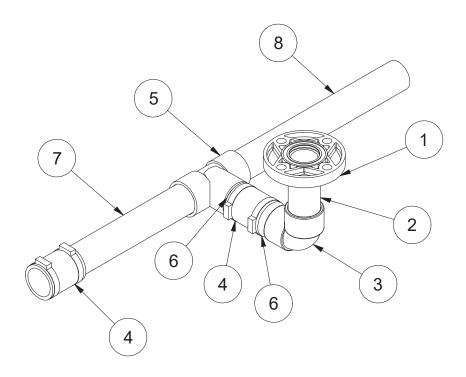
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Riser, Load Expansion, L-R Riser, Load Expansion, R-L	05700-004-81-70 05700-004-81-94
2	1	Riser, Taper, Load Expansion, L-R Riser, Taper, Load Expansion, R-L	05700-004-81-82 05700-004-82-01
3	1	Riser, Load Expansion, L-R Riser, Load Expansion, R-L	05700-004-81-72 05700-004-81-92
4	1	Riser, Taper, Load Expansion, L-R Riser, Taper, Load Expansion, R-L	05700-004-81-84 05700-004-81-99
5	4	Conveyor Rail	05700-004-62-24



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Flange, 2"	04730-003-04-25
2	1	Tube, CPVC 2" x 6"	05700-003-05-00
3	1	Elbow, 90-degree, CPVC, 2"	04730-002-72-25
4	1	No Hub Connector, 2"	04730-002-66-87
5	1	Tee, CPVC, 2"	04730-002-66-09
6	2	Tube, CPVC 2"	05700-004-61-21
7	1	Tube, CPVC 2"	05700-004-65-47
8	1	Adapter, 2" x 2"	04730-004-72-64
9	1	Fitting, Cap 2"	04730-004-72-65
10	1	Drain Gasket, 2" (Not Shown)	05330-003-04-26

Complete Load Section Drain Plumbing L-R 05700-004-67-31 R-L 05700-004-76-31

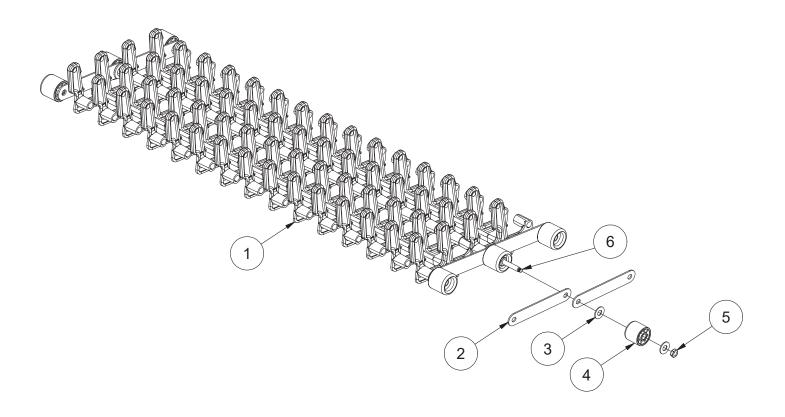
LOAD SECTION EXPANSION DRAIN PLUMBING



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Flange, 2"	04730-003-04-25
2	1	Tube, CPVC 2" x 6"	05700-003-05-00
3	1	Elbow, 90-degree, CPVC, 2"	04730-002-72-25
4	2	No Hub Connector, 2"	04730-002-66-87
5	1	Tee, CPVC, 2"	04730-002-66-09
6	2	Tube, CPVC 2"	05700-004-61-21
7	1	Tube, CPVC 2" x 14 3/4"	05700-004-81-86
8	1	Tube, CPVC 2" x 18 3/4"	05700-004-81-87

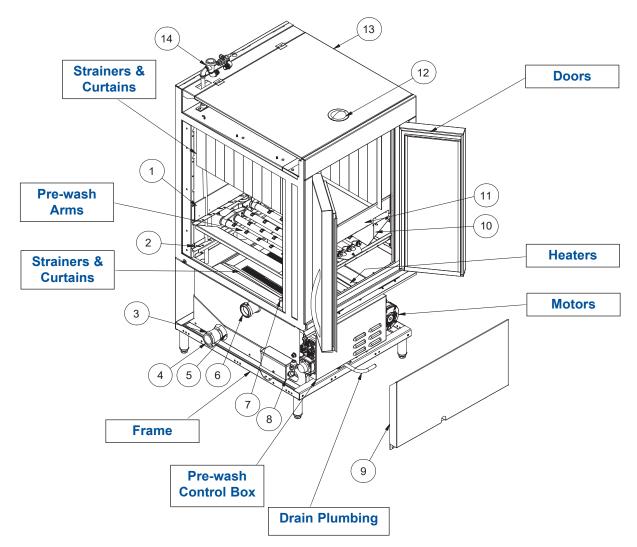
Complete Load Expansion Drain Plumbing 05700-004-81-88

When ordering replacement conveyor belt assemblies, please have machine serial number available and contact technical support toll free at 888.800.5672.



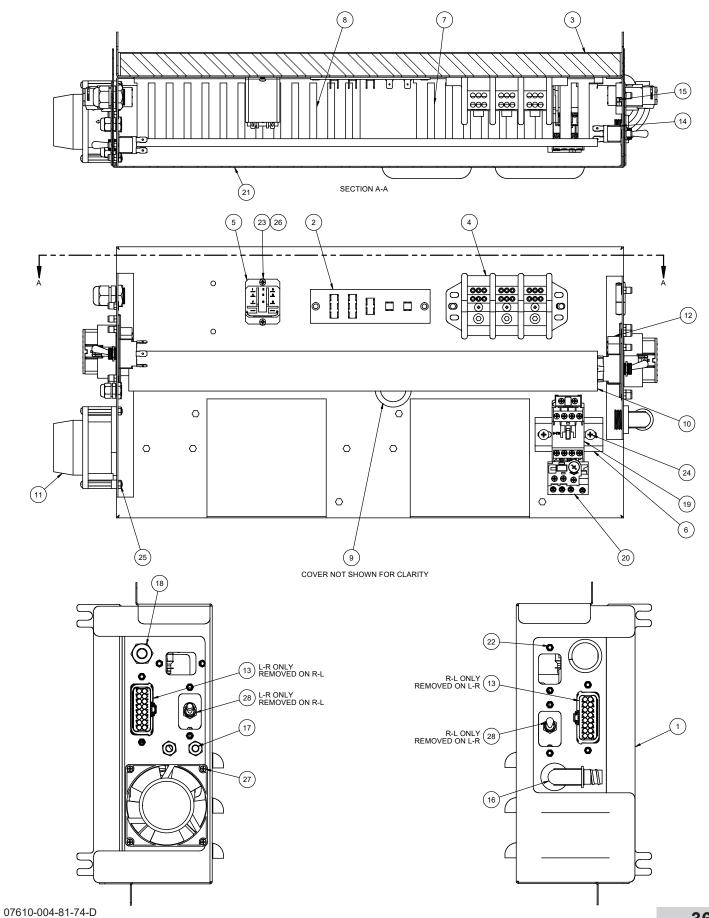
ITEM	QTY	DESCRIPTION	PART NUMBER
	1	Complete 12' Rod Assembly	05700-002-85-37
1	15	Peg, Belt	05700-003-25-80
2	2	Plate, Connector	05700-002-63-85
3	6	Washer	05311-175-01-00
4	2	Wheel, PVC	05340-002-63-86
5	2	Locknut, 1/4-20, Low Profile with Nylon Insert	05310-374-02-00
6	1	Rod, Conveyor	05700-002-63-92

PRE-WASH SECTION



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Rail, Conveyor Upper	05700-004-71-99
2	1	Rail, Conveyor Lower, Rear	05700-004-62-24
3	4	Hose Clamp, 2 9/19" to 3 1/2"	04730-003-15-40
4	1	Connector, 2" No Hub	04730-002-66-87
5	2	Tube, CVPC, 2"	05700-004-66-94
6	1	Hose, 2 1/2" ID, Blue, 10" Long	05700-004-67-02
7	1	Rail, Conveyor Lower	05700-004-62-05
8	1	Junction Box, Pre-wash to Load	05700-004-73-84
9	1	Panel, Front	05700-004-61-90
10	2	Baffle, Wash Diverter	05700-004-72-00
11	1	Rail, Conveyor Upper, Front	05700-004-71-98
12	1	Handle, Top	05700-002-67-21
13	1	Panel, Vent	05700-004-61-68
14	1	Plumbing, Fill Assembly	05700-004-72-60

PRE-WASH CONTROL BOX

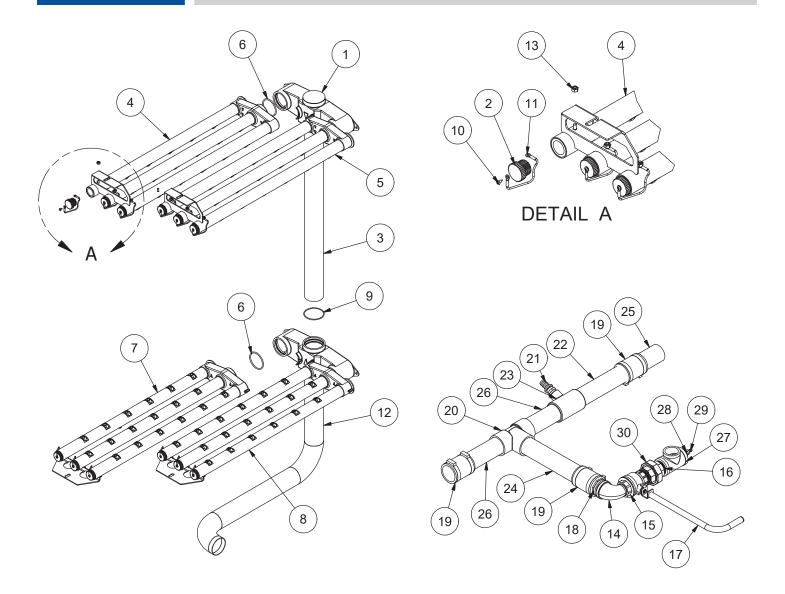


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PRE-WASH CONTROL BOX

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Control Box	05700-004-73-68
2	1	Terminal Board	05940-002-78-97
3	1	Foam Insulation, Lower Tub	05700-004-75-55
4	1	Terminal Block, 3-pole	05940-011-48-27
5	1	Relay, 2-Pole	05945-111-35-19
6	1	Din-rail, 3"	05700-011-84-65
7	1	Panduit Bottom, 1 1/2" x 3" x 8"	05700-004-65-18
8	1	Panduit Bottom, 1 1/2" x 3" x 10"	05700-004-65-17
9	1	Bushing, Snap	05975-003-10-46
10	1	Panduit Top, 1 1/2" x 20 3/4"	05700-002-87-24
11	1	Fan	05999-004-19-46
12	2	Connector, 16-pin Mount	05940-004-73-27
13	2	Connector, 16-pin Receptacle	05940-004-73-43
14	2	Cover, Connector Hole, 8-pin	05940-004-73-47
15	1	Connector, 10-pin Receptacle	05975-004-35-29
16	1	Connector, 16-pin Receptacle	05975-003-35-32
17	2	Fitting, Nut and Cap	05975-205-43-00
18	1	Fitting	05975-011-49-03
19	1	Contactor, AC, 100 V	05945-004-25-78
20	1	Overload	See Motor Overloads page.
21	2	Cover, Control Box	05700-004-74-07
22	22	Nut, Hex 10-32	05310-004-40-48
23	2	Nut, 10-32	05340-118-05-00
24	6	Screw, 10-32 x 3/4"	05305-011-62-17
25	4	Locknut, 6-32 x 1/2" with Nylon Insert	05310-373-03-00
26	2	Screw, 6-32 x 1/2"	05305-004-23-63
27	4	Screw, 6-32 x 1 3/4"	05305-004-36-67
28	2	Switch, Photoeye Override	05700-005-05-89

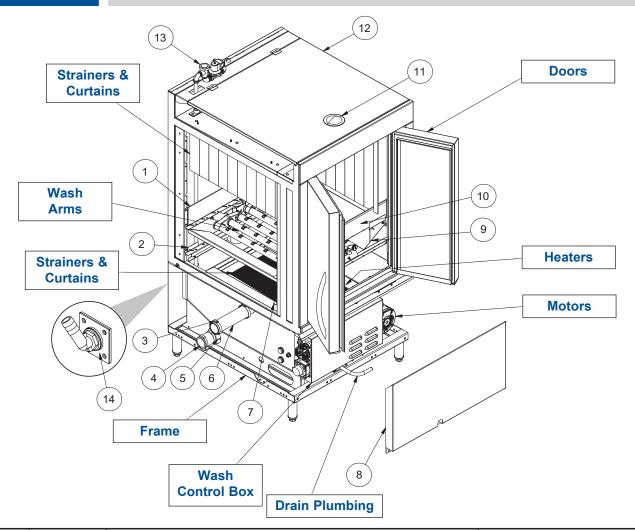
PRE-WASH ARMS & DRAIN PLUMBING



PRE-WASH ARMS & DRAIN PLUMBING

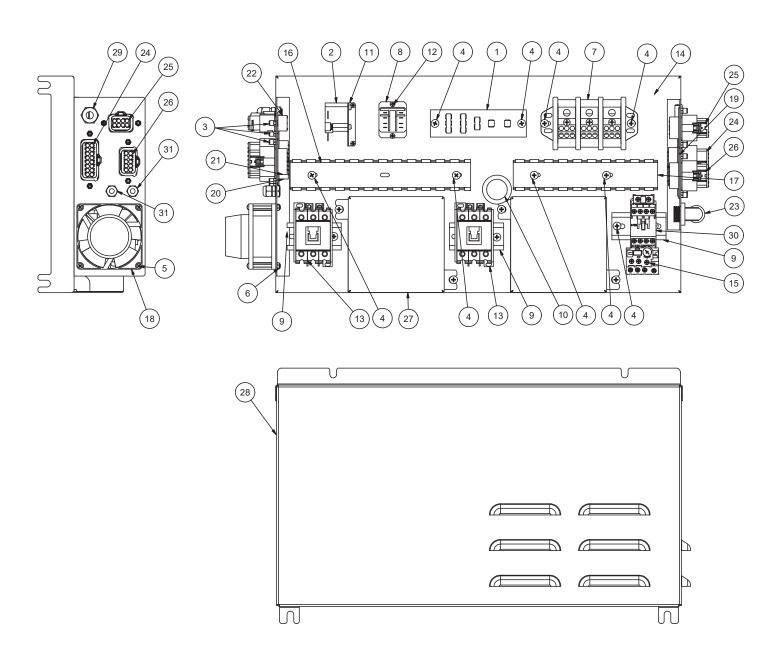
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Manifold, Upper	05700-003-73-66
2	12	Cap, Threaded	04730-603-12-00
3	1	Tube, Wash System Riser	05700-004-57-20
4	1	Wash Manifold, Upper Left	05700-004-57-22
5	1	Wash Manifold, Upper Right	05700-004-57-21
6	4	O-ring, 2 1/2"	05330-003-73-72
7	1	Wash Manifold, Lower Left	05700-004-57-24
8	1	Wash Manifold, Lower Right	05700-004-57-23
9	2	O-ring, 2 11/16"	05330-003-73-71
10	12	Screw, 6-40 x 3/8"	05305-002-63-49
11	12	Lanyard, 6"	05340-011-72-46
12	1	Wash Pump Manifold	05700-004-63-71
13	12	Locknut, 10-32 with Nylon Insert	05310-373-02-00
14	1	Elbow, 1 1/2" Brass, 90-degree	04730-206-32-00
15	1	Valve, Ball 1 1/2"	04820-111-71-46
16	2	Nipple, 1 1/2" Brass	04730-207-40-00
17	1	Drain Handle	05700-004-62-26
18	1	Fitting, 1 1/2"	04730-002-74-06
19	3	Connector, 2" No Hub	04730-002-66-87
20	1	Tee, 2"	04730-002-66-09
21	1	Fitting	04730-004-52-94
22	1	Tube, CVPC, 2" x 10 1/2"	05700-004-73-98
23	1	Reducing Tee	04730-004-63-80
24	1	Tube, CVPC, 2" x 11 1/2"	05700-004-64-38
25	1	Tube, CVPC, 2", Drain Right Side	05700-004-64-39
26	2	Tube, CVPC, 2", Drain Left Side	05700-004-66-94
27	1	Tee, 1 1/2"	04730-011-69-93
28	1	Reducer, 1 1/2" to 1/4"	04730-002-55-76
29	1	Fitting, 1/4"	04730-011-95-41
30	1	Union, 1 1/2"	04730-212-08-34

WASH SECTION



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Rail, Conveyor Upper	05700-004-71-99
2	1	Rail, Conveyor Lower, Rear	05700-004-62-24
3	4	Hose Clamp, 2 9/19" to 3 1/2"	04730-003-15-40
4	1	Connector, 2" No Hub	04730-002-66-87
5	2	Tube, CVPC, 2"	05700-004-66-94
6	1	Hose, 2 1/2" ID, Blue, 10" Long	05700-004-72-48
7	1	Rail, Conveyor Lower	05700-004-62-05
8	1	Panel, Front	05700-004-61-90
9	2	Baffle, Wash Diverter	05700-004-72-00
10	1	Rail, Conveyor Upper, Front	05700-004-71-98
11	1	Handle, Top	05700-002-67-21
12	1	Panel, Vent	05700-004-61-68
13	1	Plumbing, Fill Assembly	05700-004-72-60
14	1	Plate, Detergent Tube Inlet (Not to Scale)	05700-005-07-06
15	1	Temperature Probe (Not Shown)	06685-004-34-58

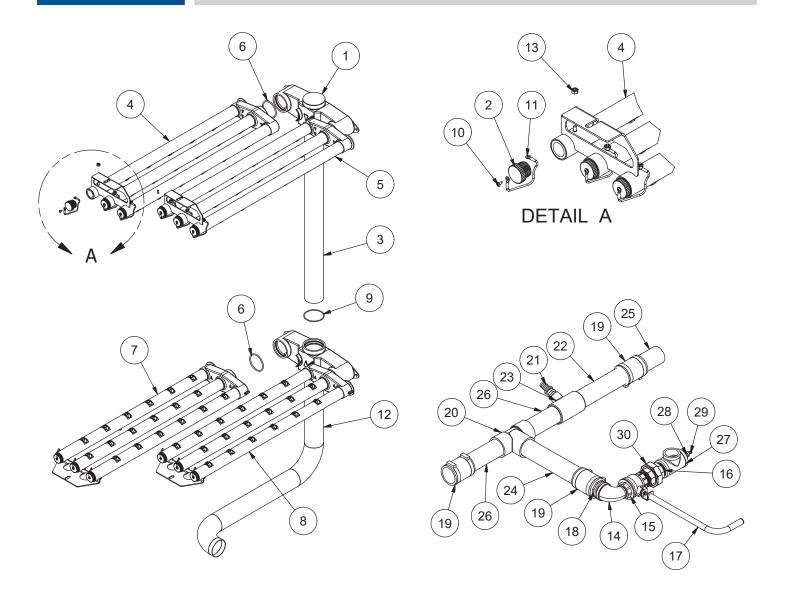
WASH CONTROL BOX



WASH CONTROL BOX

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Terminal Board	05940-002-78-97
2	1	Thermostat	05930-004-33-12
3	30	Nut, Hex 10-32	05310-004-40-48
4	18	Screw, 10-32 x 3/4"	05305-011-62-17
5	4	Screw, 6-32 x 1 3/4"	05305-004-36-67
6	4	Locknut, 6-32 x 1/2" with Nylon Insert	05310-373-03-00
7	1	Terminal Block, 3-pole	05940-011-48-27
8	1	Relay, 2-Pole	05945-111-35-19
9	3	Din-rail, 3"	05700-011-84-65
10	1	Bushing, Snap	05975-003-10-46
11	1	Bracket, Thermostat	05700-004-36-37
12	4	Nut, 6-32 Plated	05340-118-04-00
	4	Screw, 6-32 x 1/2"	05305-004-23-63
13	1	Contactor, AC, 120 V	05945-002-65-98
14	1	Foam Insulation (Back of Box, Not Shown)	05700-004-61-45
15	1	Overload	See Motor Overloads page.
16	1	Panduit Bottom, 1 1/2" x 3" x 10"	05700-004-65-17
17	1	Panduit Bottom, 1 1/2" x 3" x 8"	05700-004-65-18
18	1	Fan	05999-004-19-46
19	1	Control Box	05700-004-73-68
20	2	Connector, 16-pin Mount	05940-004-73-27
21	2	Connector, 10-pin Mount	05940-004-73-28
22	2	Connector, 8-pin Mount	05940-004-73-29
23	1	Fitting, 1/2", 90-degree	05975-003-35-32
24	2	Connector, 16-pin Receptacle	05940-004-73-43
25	2	Connector, 8-pin Receptacle	05940-004-73-44
26	2	Connector, 10-pin Receptacle	05940-004-73-45
27	2	Cover, Heater	05700-004-73-71
28	1	Cover, Control Box	05700-004-74-07
29	1	Fitting	05975-011-49-03
30	1	Contactor, AC, 100 V	05945-004-25-78
31	2	Fitting, Nut and Cap	05975-205-43-00

WASH ARMS & DRAIN PLUMBING

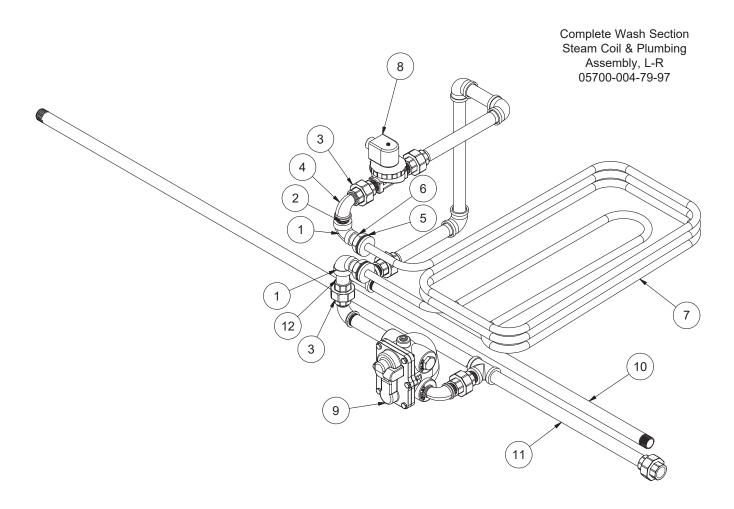


WASH ARMS & DRAIN PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Manifold, Upper	05700-003-73-66
2	12	Cap, Threaded	04730-603-12-00
3	1	Tube, Wash System Riser	05700-004-57-20
4	1	Wash Manifold, Upper Left	05700-004-57-22
5	1	Wash Manifold, Upper Right	05700-004-57-21
6	4	O-ring, 2 1/2"	05330-003-73-72
7	1	Wash Manifold, Lower Left	05700-004-57-24
8	1	Wash Manifold, Lower Right	05700-004-57-23
9	2	O-ring, 2 11/16"	05330-003-73-71
10	12	Screw, 6-40 x 3/8"	05305-002-63-49
11	12	Lanyard, 6"	05340-011-72-46
12	1	Wash Pump Manifold	05700-004-63-71
13	12	Locknut, 10-32 with Nylon Insert	05310-373-02-00
14	1	Elbow, 1 1/2" Brass, 90-degree	04730-206-32-00
15	1	Valve, Ball 1 1/2"	04820-111-71-46
16	2	Nipple, 1 1/2" Brass	04730-207-40-00
17	1	Drain Handle	05700-004-62-26
18	1	Fitting, 1 1/2"	04730-002-74-06
19	3	Connector, 2" No Hub	04730-002-66-87
20	1	Tee, 2"	04730-002-66-09
21	1	Fitting	04730-004-52-94
22	1	Tube, CVPC, 2" x 10 1/2"	05700-004-73-98
23	1	Reducing Tee	04730-004-63-80
24	1	Tube, CVPC, 2" x 11 1/2"	05700-004-64-38
25	1	Tube, CVPC, 2", Drain Right Side	05700-004-64-39
26	2	Tube, CVPC, 2", Drain Left Side	05700-004-66-94
27	1	Tee, 1 1/2"	04730-011-69-93
28	1	Reducer, 1 1/2" to 1/4"	04730-002-55-76
29	1	Fitting, 1/4"	04730-011-95-41
30	1	Union, 1 1/2"	04730-212-08-34

WASH STEAM COIL & PLUMBING, L-R

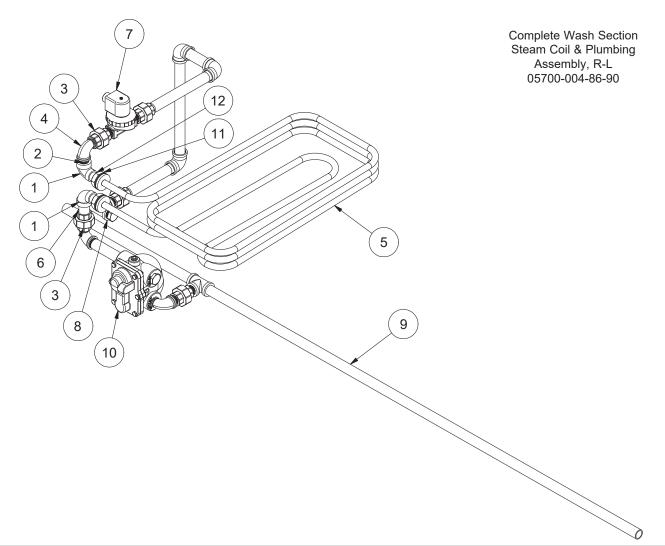
NOTICE This steam coil assembly is used only in the FlightStar Steam Wash Section, L-R.



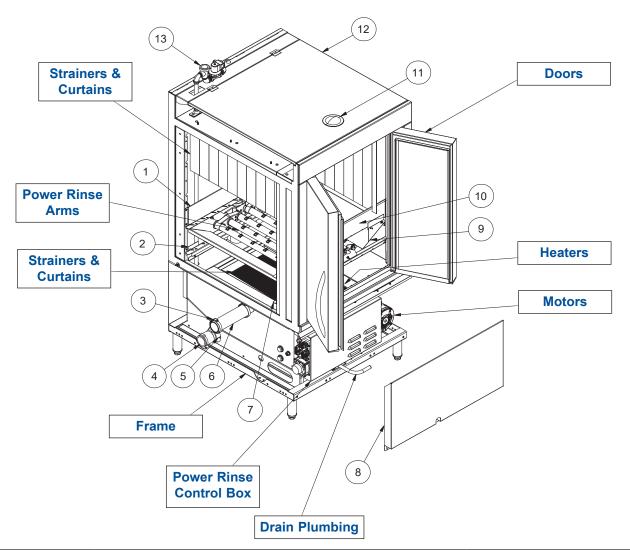
ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Elbow, 3/4" x 1/2" Black Iron	04730-003-75-92
2	6	Nipple, 3/4" Close Black Iron	04730-907-01-00
3	6	Union, 3/4" Black Iron	04730-912-01-00
4	3	Elbow, 90-degree, 3/4"	04730-011-87-37
5	4	Gasket, Steam Coil	05700-001-17-86
6	2	Nut, Steam Coil Adapter	05310-011-17-85
7	1	Steam Coil Assembly	05700-004-79-87
8	1	Steam Valve Piping Assembly Solenoid Valve Only	05700-004-79-81 04820-011-87-39
9	1	Steam Trap Assembly	05700-004-79-93
10	1	Steam Piping Assembly One	05700-004-79-95
11	1	Steam Piping Assembly Two	05700-004-79-96
12	1	Nipple, 3/4" x 2" Black Iron	04730-004-85-28

WASH STEAM COIL & PLUMBING, R-L

NOTICE This steam coil assembly is used only in the FlightStar Steam Wash Section, R-L.

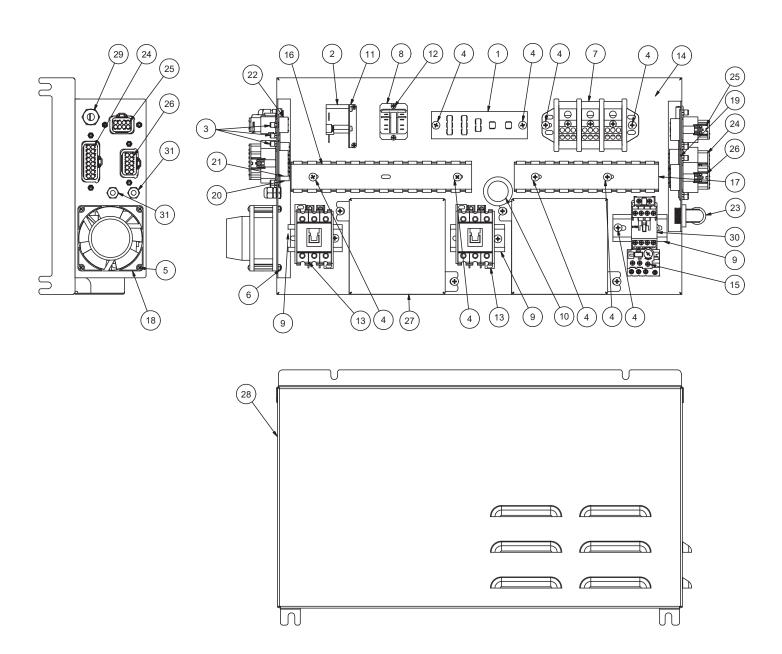


ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Elbow, 3/4" x 1/2" Black Iron	04730-003-75-92
2	6	Nipple, 3/4" Close Black Iron	04730-907-01-00
3	5	Union, 3/4" Black Iron	04730-912-01-00
4	3	Elbow, 90-degree, 3/4"	04730-011-87-37
5	1	Steam Coil Assembly	05700-004-79-87
6	1	Nipple, 3/4" x 2" Black Iron	04730-004-85-28
7	1	Steam Valve Piping Assembly Solenoid Valve Only	05700-004-79-81 04820-011-87-39
8	1	Steam Piping Assembly One	05700-004-86-91
9	1	Steam Piping Assembly Two	05700-004-86-92
10	1	Steam Trap Assembly	05700-004-86-93
11	4	Gasket, Steam Coil	05700-001-17-86
12	2	Nut, Steam Coil Adapter	05310-011-17-85



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Rail, Conveyor Upper	05700-004-71-99
2	1	Rail, Conveyor Lower, Rear	05700-004-62-24
3	4	Hose Clamp, 2 9/19" to 3 1/2"	04730-003-15-40
4	1	Connector, 2" No Hub	04730-002-66-87
5	2	Tube, CVPC, 2"	05700-004-66-94
6	1	Hose, 2 1/2" ID, Blue, 10" Long	05700-004-72-48
7	1	Rail, Conveyor Lower	05700-004-62-05
8	1	Panel, Front	05700-004-61-90
9	2	Baffle, Wash Diverter	05700-004-72-00
10	1	Rail, Conveyor Upper, Front	05700-004-71-98
11	1	Handle, Top	05700-002-67-21
12	1	Panel, Vent	05700-004-61-68
13	1	Plumbing, Fill Assembly	05700-004-72-60

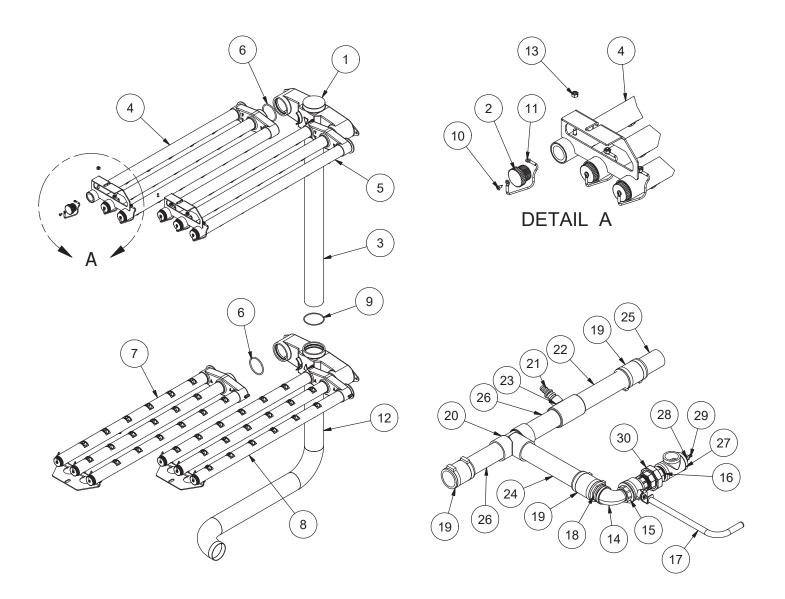
POWER RINSE CONTROL BOX



POWER RINSE CONTROL BOX

ITEM	QTY DESCRIPTION		PART NUMBER
1	1	Terminal Board	05940-002-78-97
2	1	Thermostat	05930-004-33-12
3	30	Nut, Hex 10-32	05310-004-40-48
4	18	Screw, 10-32 x 3/4"	05305-011-62-17
5	4	Screw, 6-32 x 1 3/4"	05305-004-36-67
6	4	Locknut, 6-32 x 1/2" with Nylon Insert	05310-373-03-00
7	1	Terminal Block, 3-pole	05940-011-48-27
8	1	Relay, 2-Pole	05945-111-35-19
9	3	Din-rail, 3"	05700-011-84-65
10	1	Bushing, Snap	05975-003-10-46
11	1	Bracket, Thermostat	05700-004-36-37
12	4	Nut, 6-32 Plated	05340-118-04-00
12	4	Screw, 6-32 x 1/2"	05305-004-23-63
13	1	Contactor, AC, 120 V	05945-002-65-98
14	1	Foam Insulation (Back of Box, Not Shown)	05700-004-61-45
15	1	Overload	See Motor Overloads page.
16	1	Panduit Bottom, 1 1/2" x 3" x 10"	05700-004-65-17
17	1	Panduit Bottom, 1 1/2" x 3" x 8"	05700-004-65-18
18	1	Fan	05999-004-19-46
19	1	Control Box	05700-004-73-68
20	2	Connector, 16-pin Mount	05940-004-73-27
21	2	Connector, 10-pin Mount	05940-004-73-28
22	2	Connector, 8-pin Mount	05940-004-73-29
23	1	Fitting, 1/2", 90-degree	05975-003-35-32
24	2	Connector, 16-pin Receptacle	05940-004-73-43
25	2	Connector, 8-pin Receptacle	05940-004-73-44
26	2	Connector, 10-pin Receptacle	05940-004-73-45
27	2	Cover, Heater	05700-004-73-71
28	1	Cover, Control Box	05700-004-74-07
29	1	Fitting	05975-011-49-03
30	1	Contactor, AC, 100 V	05945-004-25-78
31	2	Fitting, Nut and Cap	05975-205-43-00

POWER RINSE ARMS & DRAIN PLUMBING

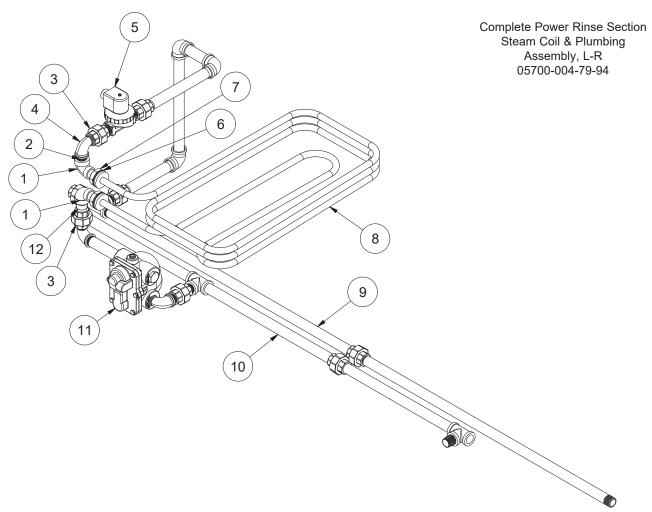


POWER RINSE ARMS & DRAIN PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Manifold, Upper	05700-003-73-66
2	12	Cap, Threaded	04730-603-12-00
3	1	Tube, Wash System Riser	05700-004-57-20
4	1	Wash Manifold, Upper Left	05700-004-57-22
5	1	Wash Manifold, Upper Right	05700-004-57-21
6	4	O-ring, 2 1/2"	05330-003-73-72
7	1	Wash Manifold, Lower Left	05700-004-57-24
8	1	Wash Manifold, Lower Right	05700-004-57-23
9	2	O-ring, 2 11/16"	05330-003-73-71
10	12	Screw, 6-40 x 3/8"	05305-002-63-49
11	12	Lanyard, 6"	05340-011-72-46
12	1	Wash Pump Manifold	05700-004-63-71
13	12	Locknut, 10-32 with Nylon Insert	05310-373-02-00
14	1	Elbow, 1 1/2" Brass, 90-degree	04730-206-32-00
15	1	Valve, Ball 1 1/2"	04820-111-71-46
16	2	Nipple, 1 1/2" Brass	04730-207-40-00
17	1	Drain Handle	05700-004-62-26
18	1	Fitting, 1 1/2"	04730-002-74-06
19	3	Connector, 2" No Hub	04730-002-66-87
20	1	Tee, 2"	04730-002-66-09
21	1	Fitting	04730-004-52-94
22	1	Tube, CVPC, 2" x 10 1/2"	05700-004-73-98
23	1	Reducing Tee	04730-004-63-80
24	1	Tube, CVPC, 2" x 11 1/2"	05700-004-64-38
25	1	Tube, CVPC, 2", Drain Right Side	05700-004-64-39
26	2	Tube, CVPC, 2", Drain Left Side	05700-004-66-94
27	1	Tee, 1 1/2"	04730-011-69-93
28	1	Reducer, 1 1/2" to 1/4"	04730-002-55-76
29	1	Fitting, 1/4"	04730-011-95-41
30	1	Union, 1 1/2"	04730-212-08-34

POWER RINSE STEAM COIL & PLUMBING, L-R

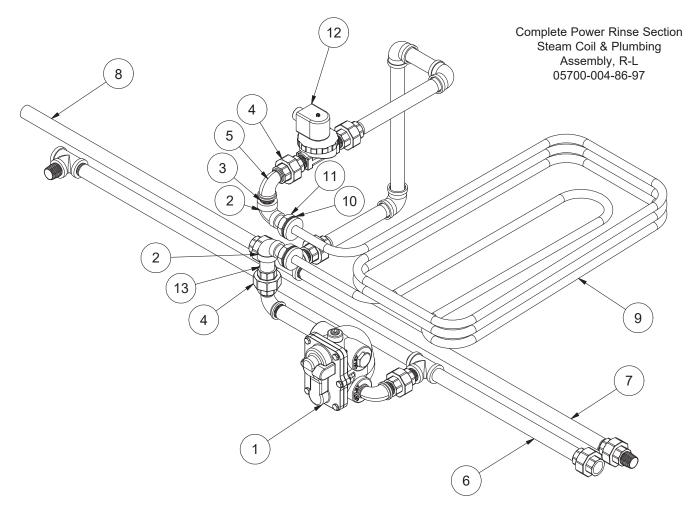
NOTICE This steam coil assembly is used only in the FlightStar Steam Power Rinse Section, L-R.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Elbow, 3/4" x 1/2" Black Iron	04730-003-75-92
2	8	Nipple, 3/4" Close Black Iron	04730-907-01-00
3	8	Union, 3/4" Black Iron	04730-912-01-00
4	3	Elbow, 90-degree, 3/4"	04730-011-87-37
5	1	Steam Valve Piping Assembly Solenoid Valve Only	05700-004-79-81 04820-011-87-39
6	4	Gasket, Steam Coil	05700-001-17-86
7	2	Nut, Steam Coil Adapter	05310-011-17-85
8	1	Steam Coil Assembly	05700-004-79-87
9	1	Steam Piping Assembly One	05700-004-79-89
10	1	Steam Piping Assembly Two	05700-004-79-90
11	1	Steam Trap Assembly	05700-004-79-93
12	1	Pipe, 3/4" x 2" Black Iron	04730-907-05-34

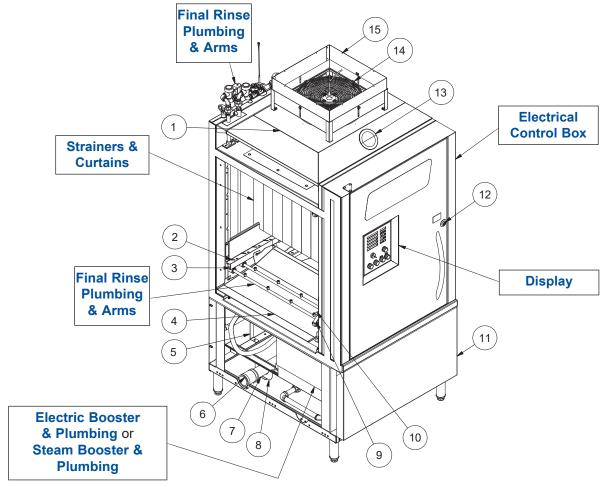
POWER RINSE STEAM COIL & PLUMBING, R-L

NOTICE This steam coil assembly is used only in the FlightStar Steam Power Rinse Section, R-L.

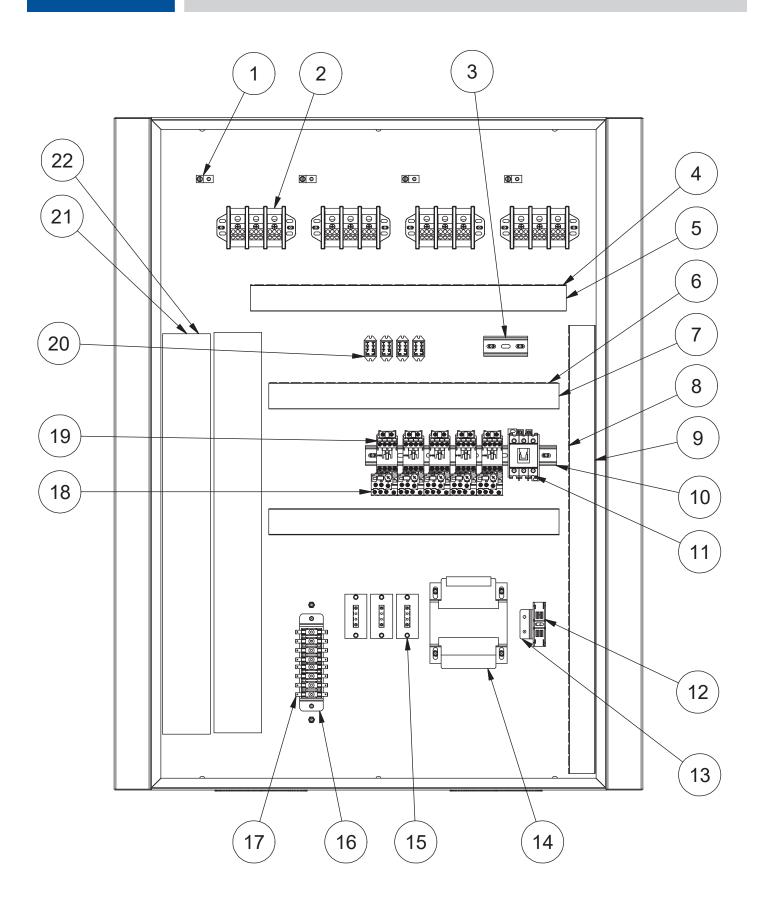


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Steam Trap Assembly	05700-004-87-03
2	2	Elbow, 3/4" x 1/2" Black Iron	04730-003-75-92
3	1	Nipple, 3/4" Close Black Iron	04730-907-01-00
4	2	Union, 3/4" Black Iron	04730-912-01-00
5	1	Elbow, 90-degree, 3/4"	04730-011-87-37
6	1	Steam Piping Assembly One	05700-004-87-01
7	1	Steam Piping Assembly Two	05700-004-86-98
8	1	Nipple, 3/4" x 20" Black Iron	04730-004-87-02
9	1	Steam Coil Assembly	05700-004-79-87
10	4	Gasket, Steam Coil	05700-001-17-86
11	2	Nut, Steam Coil Adapter	05310-011-17-85
12	1	Steam Valve Piping Assembly Solenoid Valve Only	05700-004-79-81 04820-011-87-39
13	1	Nipple, 3/4" x 2" Black Iron	04730-004-85-28

ELECTRICAL SECTION



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Cover, Electrical Section, FlightStar Cover, Electrical Section, FlightStar Steam	05700-004-73-54 05700-003-93-62
2	1	Rail, Conveyor Upper Rear	05700-004-71-98
3	2	Extension, Conveyor Rail	05700-004-82-19
4	1	Rinse Capture Pan	05700-004-73-56
5	1	Water Line Support	05700-004-77-57
6	2	Connector, 2" No-hub	04730-002-66-87
7	1	Plumbing, Drain, Electrical Section	05700-004-73-60
8	2	Bracket, Drain Pipe	05700-004-72-35
9	2	Rinse Arm Support	05700-004-69-85
10	1	Rail, Conveyor Upper Front	05700-004-71-99
11	1	Dress Panel, Front	05700-004-62-87
12	1	Latch, Door Compression	05340-002-80-97
13	1	Handle, Top Panel	05700-002-67-21
14	1	Vent Exhaust Fan	06105-002-86-46
15	1	Vent Adapter Assembly	05700-003-92-86



ELECTRICAL CONTROL BOX

ITEM	QTY	DESCRIPTION	PART NUMBER
1	4	Ground Lug	05940-200-76-00
2	4	Terminal Block, 3-Pole	05940-011-48-27
3	1	Din Rail, 2"	05700-004-73-24
4	1	Bottom, Panduit 1 1/2" x 21 1/2"	05700-004-73-21
5	1	Cover, Panduit 1 1/2" x 21 1/2"	05700-004-73-22
6	2	Bottom, Panduit 1 1/2" x 19 3/4"	05700-004-73-18
7	2	Cover, Panduit 1 1/2" x 19 3/4"	05700-004-73-19
8	1	Bottom, Panduit 1 1/2" x 30 1/2"	05700-004-73-11
9	1	Cover, Panduit 1 1/2" x 30 1/2"	05700-004-73-17
10	1	Din Rail, 13"	05700-004-73-31
11	1	Contactor, 60 A	05945-002-65-98
12	1	Fuse Holder Fuse, 2 A, 460 V (208/230 V Units) (Not Shown) Fuse, 1 A, 460 V (460 V Units) (Not Shown)	05920-011-72-89 05920-002-67-30 05920-002-67-23
13	1	Bracket, Fuse Holder	05700-002-80-50
14	1	Transformer, 208/230/460 V	05950-004-63-51
15	3	Terminal Board	05940-021-94-85
16	1	Bracket, Fuse Strip	05700-004-32-36
17	2	Fuse Block, 6-Pole	05920-002-42-13
18	5	Overload	See Motor Overloads page.
19	5	Contactor	05945-004-25-78
20	4	Relay	05945-004-44-69
21	2	Bottom, Panduit 3" x 27 1/4"	05700-004-73-05
22	2	Cover, Panduit 3" x 27 1/4"	05700-004-73-10

MOTOR OVERLOADS

Pre-Wash Motor

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-88
230	3	60 Hz	05945-004-25-88
460	3	60 Hz	05945-004-25-87

Wash Motor

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-88
230	3	60 Hz	05945-004-25-88
460	3	60 Hz	05945-004-25-87

Power Rinse Motor

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-88
230	3	60 Hz	05945-004-25-88
460	3	60 Hz	05945-004-25-87

Drive Motor

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-80
230	3	60 Hz	05945-004-25-80
460	3	60 Hz	05945-004-25-85

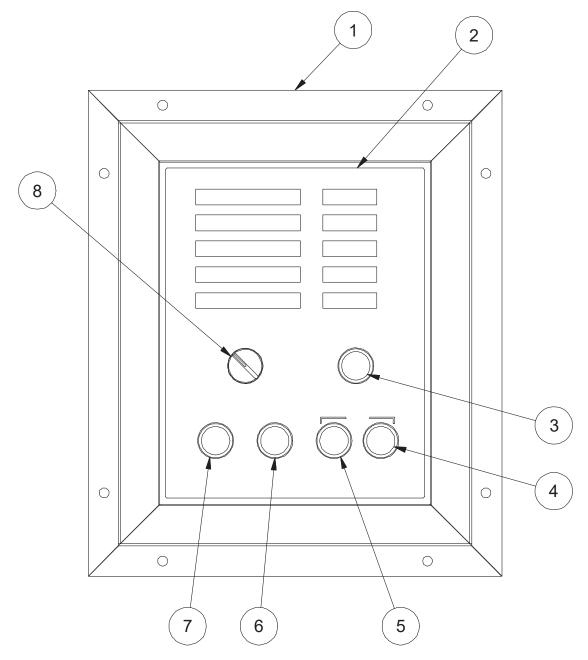
Exhaust Fan Motor

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-80
230	3	60 Hz	05945-004-25-80
460	3	60 Hz	05945-004-25-85

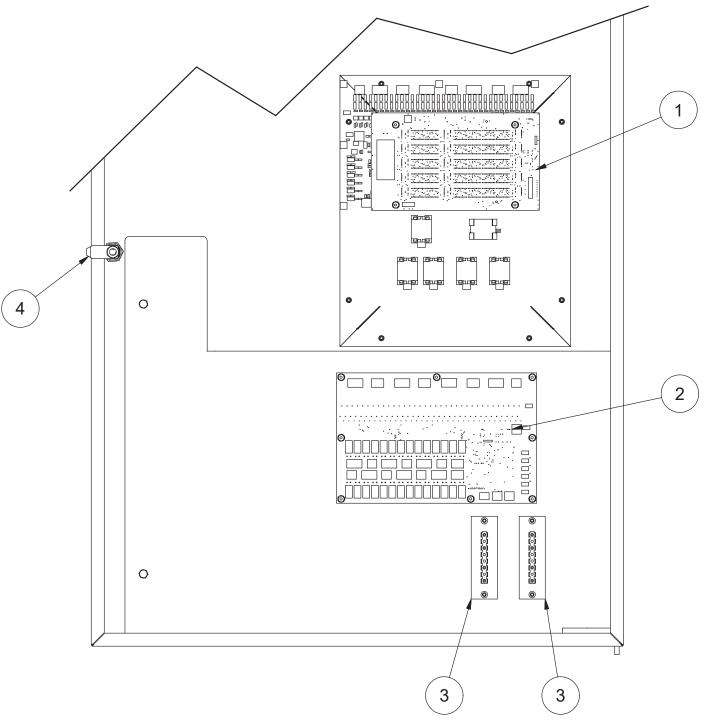
Blower

Volts	Phase	Freq	Motor Overload
208	3	60 Hz	05945-004-25-87
230	3	60 Hz	05945-004-25-87
460	3	60 Hz	05945-004-25-83

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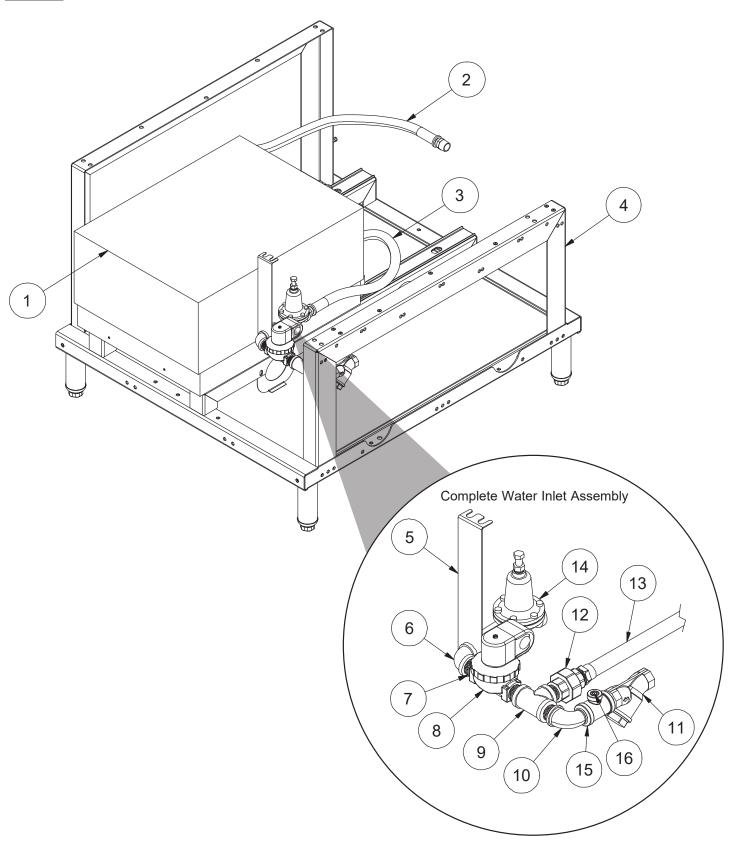
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Panel, Display	05700-004-65-70
2	1	Decal, Display Panel	05999-004-62-39
3	1	Switch, Blue (Turbo)	05930-004-73-01
4	1	Switch, Red (Stop)	05930-004-72-99
5	1	Switch, Green (Start)	05930-004-72-98
6	1	Switch, Black (Delime)	05930-004-73-00
7	1	Switch, Green (Power)	05930-004-72-97
8	1	Switch, Black Rotary (Speed)	05930-004-73-03



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	PCB, Display	05945-004-64-58
2	1	I/O Module	05945-004-64-57
3	2	Terminal Board	05940-004-21-34
4	1	Door Latch	05340-002-80-97
5	1	I/O Module Fuse (Not Shown)	05920-005-00-47

ELECTRIC BOOSTER & PLUMBING

NOTICE L-R shown.



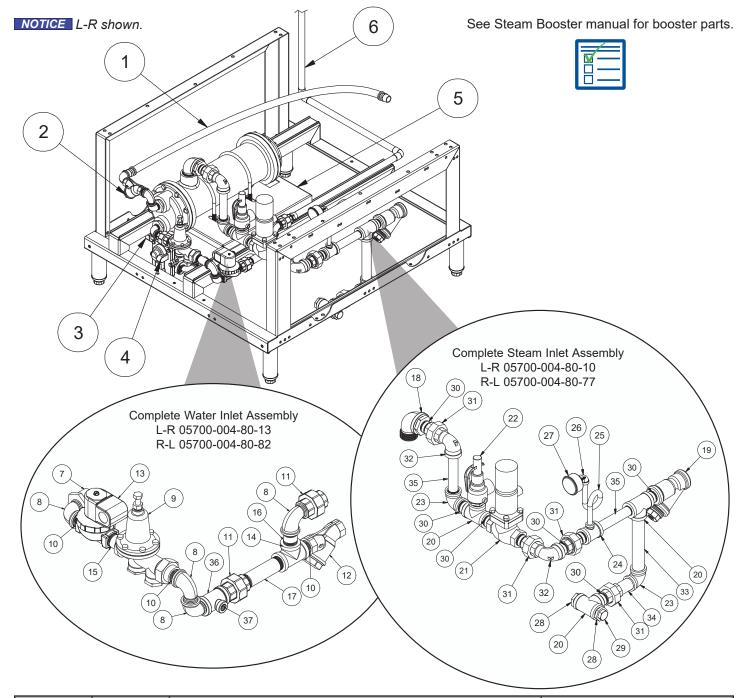
ELECTRIC BOOSTER & PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Heater, 27 kW, 208 V, 3 PH Booster Heater, 27 kW, 230 V, 3 PH Booster Heater, 27 kW, 460 V, 3 PH Booster	04540-500-05-00 04540-500-02-00 04540-500-12-00
2	1	Booster Hose, Top, L-R Booster Hose, Top, R-L	05700-004-72-47 05700-004-76-41
3	1	Booster Hose, Bottom, L-R Booster Hose, Bottom, R-L	05700-004-72-45 05700-004-76-43
4	1	Frame, Electrical Section	05700-004-62-76
5	1	Bracket, Booster Piping	05700-004-85-39
6	1	Elbow, 3/4" 90-degree Brass	04730-206-13-00
7	5	Nipple, 3/4" x 1 3/8" Brass	04730-207-34-00
8	1	Solenoid Valve, 3/4"	04810-100-53-00
9	1	Tee, 3/4" x 3/4" x 3/4" Brass	04730-211-01-34
10	1	Elbow, 3/4" 90-degree Brass	04730-206-04-34
11	1	Y-strainer, 3/4" Brass	04730-717-02-06
12	1	Union, 3/4"	04730-212-05-00
13	1	Water Inlet Riser Assembly	05700-004-63-09
14	1	Pressure Regulating Valve, 3/4"	06685-011-58-22
15	1	Tee, 3/4" x 3/4" x 1/4" Brass	04730-211-04-00
16	1	Plug, 1/4" Hex Socket Flush Brass	04730-004-23-47

Complete Water Inlet Assembly L-R 05700-004-63-10 R-L 05700-004-76-39

Contains items 5-16 above.

STEAM BOOSTER & PLUMBING

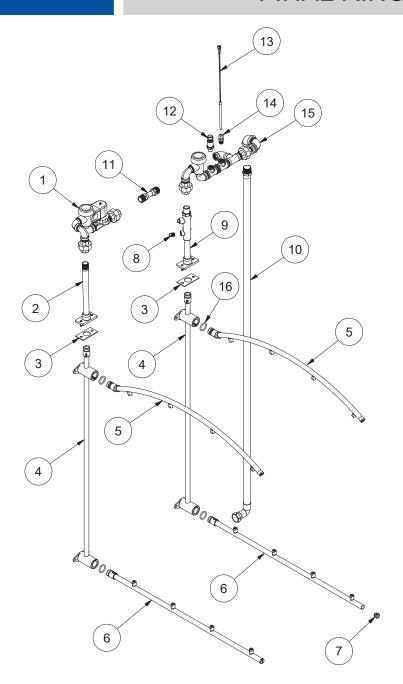


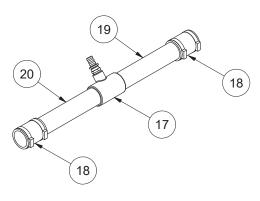
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Hose Assembly	05700-004-86-27
2	1	Outlet Assembly, L-R Outlet Assembly, R-L	05700-004-80-11 05700-004-80-81
3	1	Condensate Manifold Assembly, L-R Condensate Manifold Assembly, R-L	05700-004-80-00 05700-004-86-31
4	1	Steam Trap, L-R Steam Trap, R-L	05700-004-79-98 05700-004-94-76
5	1	Bracket, Steam Booster, L-R Bracket, Steam Booster, R-L	05700-004-80-84 05700-004-80-85

STEAM BOOSTER & PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
6	1	Water Inlet Riser Assembly, L-R Water Inlet Riser Assembly, R-L	05700-004-86-22 05700-004-86-25
7	1	Bushing, 1 1/4" x 3/4"	04730-011-88-80
8	4	Elbow, 3/4" 90-degree Brass	04730-206-04-34
9	1	Pressure Regulating Valve, 3/4"	06685-011-58-22
10	4	Nipple, 3/4" x 1 3/8" Brass	04730-207-34-00
11	3	Union, 3/4"	04730-212-05-00
12	1	Y-strainer, 3/4" Brass	04730-717-02-06
13	1	Solenoid Valve, 3/4"	04810-100-53-00
14	1	Tee, 3/4" x 3/4" x 3/4" Brass	04730-211-01-34
15	1	Nipple, 3/4" x 3" Brass	04730-011-38-29
16	1	Nipple, 3/4" x 2" Brass	04730-207-46-00
17	1	Nipple, 3/4" x 4 1/2" Brass	04730-004-04-53
18	1	Bushing, 1 1/2" x 1" Black Iron	04730-002-36-79
19	1	Y-strainer, 1" Black Iron	04730-217-02-32
20	3	Tee, 1" x 1" x 1" Black Iron	04730-911-01-34
21	1	Valve, 1" Bronze Steam	04810-002-92-23
22	1	Valve, Safety Relief	04820-100-01-35
23	2	Elbow, 90-degree, 1"	04730-906-03-34
24	1	Tee, 1" x 1" x 1/4" Black Iron	04730-911-01-00
25	1	Nipple, Pigtail, 1/4" Black Iron	04730-907-14-34
26	1	Elbow, 90-degree, 1/4" Black Iron	04730-002-87-10
27	1	Gauge, 0–100 PSI	06680-011-86-42
28	2	Reducer, 1" to 3/4"	04730-011-95-66
29	1	Plug, 3/4" Black Iron	04730-004-02-72
30	8	Nipple, 1" Close Black Iron	04730-907-08-34
31	4	Union, 1" Black Iron	04730-912-01-34
32	2	Elbow, 1" Street Black Iron	04730-002-86-58
33	1	Nipple, 1" x 8" Black Iron	04730-004-84-30
34	1	Nipple, 1" x 3" Black Iron	04730-004-80-03
35	2	Nipple, 3/4" x 6" Black Iron	04730-907-01-34
36	1	Tee, 3/4" x 3/4" x 1/4" Brass	04730-211-04-00
37	1	Plug, 1/4" Hex Socket Flush Brass	04730-004-23-47

FINAL RINSE PLUMBING & ARMS





Complete Final Rinse Plumbing Assembly 05700-004-63-11



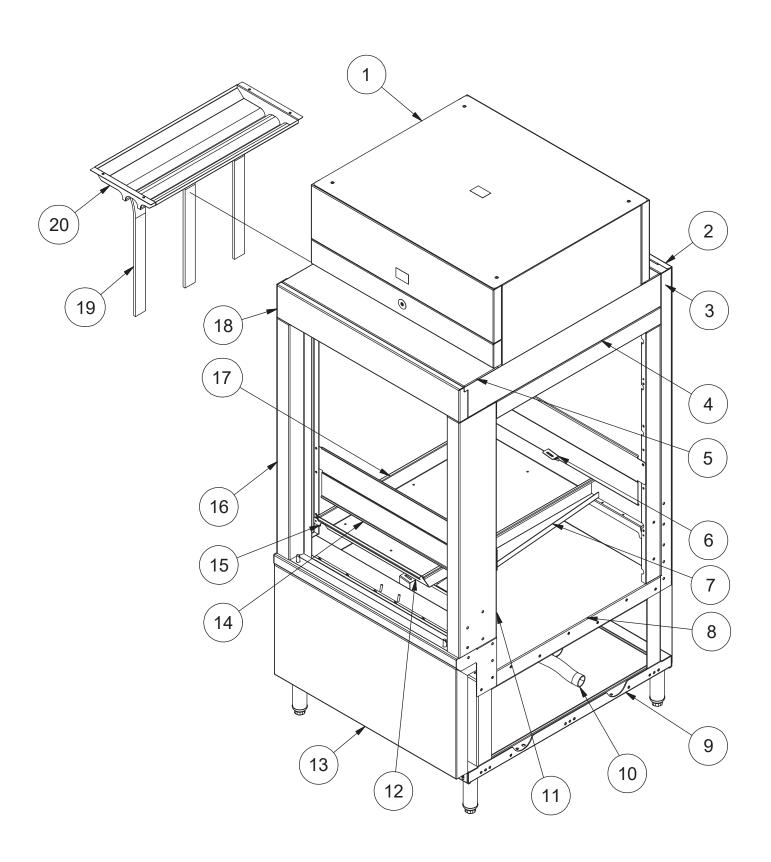
Complete Final Rinse Arm Assembly 05700-004-63-05

Does not include Item #8.



FINAL RINSE PLUMBING & ARMS

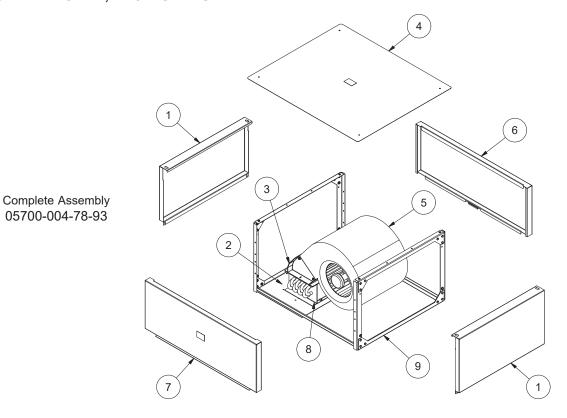
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Rinse Inlet Valve Assembly Two	05700-004-63-15
2	1	Rinse Nozzle Extension	05700-004-63-08
3	2	Gasket, Rinse Manifold	05330-003-75-91
4	2	Rinse Manifold Assembly	05700-004-62-92
5	2	Rinse Arm, Upper Arched (Includes Item #7)	05700-003-94-59
6	2	Rinse Arm, Lower (Includes Item #7)	05700-003-94-60
7	4	End-cap, Rinse Arm	05700-011-35-92
8	4	Plug, 1/4" Brass	04730-211-01-34
9	1	Rinse Injector (Includes Item #9)	05700-004-73-62
10	1	Rinse Inlet Riser Assembly	05700-004-63-12
11	1	Rinse Inlet Section	05700-004-63-13
12	1	Pressure Transducer	05945-004-17-01
13	1	Thermistor Probe	06685-004-17-26
14	1	Compression Fitting, 1/4" x 1/4"	04730-011-48-56
15	1	Rinse Inlet Valve Assembly One	05700-004-63-14
16	4	O-ring, Silicone, 11/16" x 7/8"	05330-003-77-82
17	1	Reducing Tee	04730-004-63-80
18	2	Connector, 2" No Hub	04730-002-66-87
19	1	Fitting	04730-004-52-94
20	2	Tube, CVPC, 2" x 12 1/2"	05700-004-73-59
21	2	Fill Hose, 3/4", 33" Long, L-R & R-L (Not Shown)	05700-004-72-40
22	1	Fill Hose, 3/4", 22" Long, L-R (Not Shown) Fill Hose, 3/4", 14" Long, R-L (Not Shown)	05700-004-72-62 05700-004-92-53



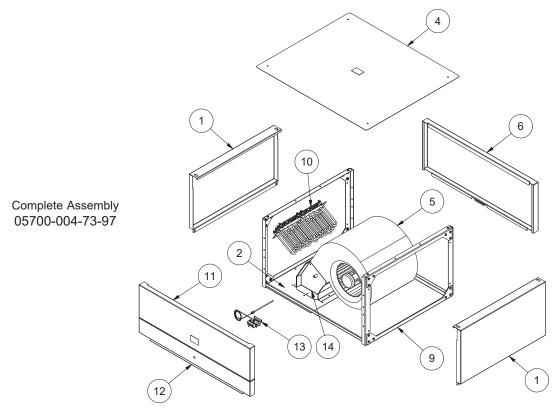
BLOWER/DRYER

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Blower Assembly	See next page.
2	1	Dress Panel, Rear	05700-004-72-74
3	1	Rear Panel, Blower	05700-004-78-81
4	1	End Plate Panel, Blower Right End Plate Panel, Blower Left (Not Shown)	05700-004-74-32 05700-004-74-14
5	1	Front Top Cover, Blower	05700-004-74-16
6	1	Bracket, Upper Rear Rail Support Bracket, Upper Front Rail Support (Not Shown)	05700-004-75-96 05700-004-75-95
7	1	Tray Support, Right Tray Support, Left (Not Shown)	05700-004-74-99 05700-004-74-98
8	1	Bottom Plate, Blower	05700-004-74-25
9	1	Frame Assembly	05700-004-77-63
10	1	Complete Drain Assembly, Blower	05700-004-75-02
11	1	Support, Corner Post, RH, L-R Support, Corner Post, RH, R-L	05700-004-75-27 05700-004-75-44
12	1	Bracket, Lower Front Rail Support Bracket, Lower Rear Rail Support (Not Shown)	05700-004-75-97 05700-004-75-98
13	1	Dress Panel, Front	05700-004-62-87
14	2	Guard, Conveyor Rear	05700-004-62-69
15	2	Tray Rail, Blower	05700-004-74-20
16	1	Support, Corner Post, LH, L-R Support, Corner Post, LH, R-L	05700-004-72-07 05700-004-76-68
17	1	Tray, Blower	05700-004-74-87
18	1	Door Header, Blower, L-R Door Header, Blower, R-L	05700-004-75-74 05700-004-76-67
19	3	Dish Stablilizer	05330-003-04-43
20	1	Blower Air Knives Box	05700-003-92-04

STEAM BLOWER, FLIGHTSTAR STEAM



ELECTRIC BLOWER, FLIGHTSTAR

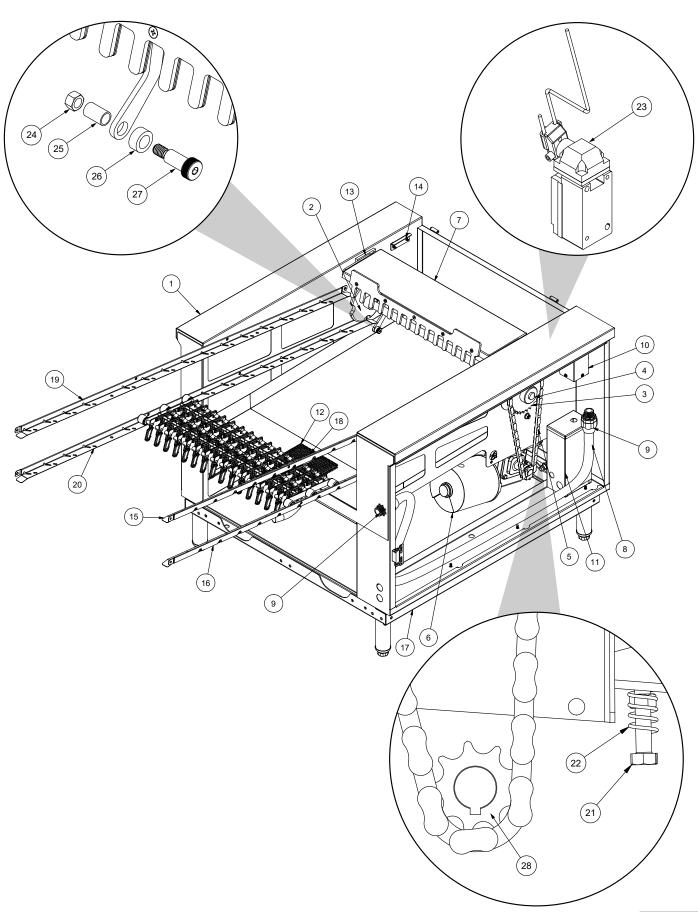


BLOWER ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Panel, Blower Side	05700-002-71-99
2	1	Plate, Blower Support	05700-002-84-67
3	1	Blower Dryer Heater Box, FlightStar Steam	05700-002-76-85
4	1	Panel, Blower Top	05700-002-72-00
5	1	Blower, 208-230/600 V, 60 Hz, Dual Cage Blower, 460 V, 60 Hz, Dual Cage	06105-002-72-15 06105-002-88-36
6	1	Panel, Blower Back	05700-004-74-09
7	1	Panel, Blower Front	05700-004-78-92
8	1	Heat Exchanger, FlightStar Steam	04420-002-76-68
9	1	Frame Assembly	05700-002-84-68
10	2	Heater, 4.5 kW, 208 V, FlightStar Heater, 4.5 kW, 240 V, FlightStar Heater, 4.5 kW, 460 V, FlightStar Heater, 4.5 kW, 600 V, FlightStar	04540-002-74-29 04540-002-87-79 04540-002-91-60 04540-002-90-30
11	1	Panel, Blower Front, FlightStar	05700-003-91-89
12	1	Panel, Blower Front Lower, FlightStar	05700-004-75-81
13	1	High Limit Thermostat, FlightStar	05930-003-92-41
14	1	Blower Dryer Heater Box, FlightStar	05700-002-72-14

ITEMS NOT SHOWN, FLIGHTSTAR STEAM

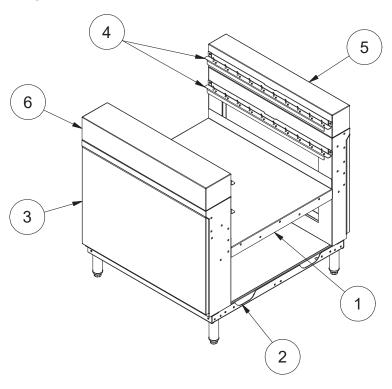
15	2	Nipple, 3/4" x 2" Brass Heat Exchanger	04730-002-90-27
16	2	Elbow, 3/4" 90-degree, Brass Heat Exchanger	04730-206-04-34
17	1	Hose Assembly, Outlet	05700-002-87-95
18	1	Hose Assembly, Inlet	05700-002-87-96



UNLOAD SECTION

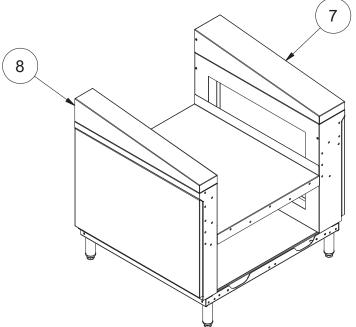
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tank, L-R	05700-004-74-46
2	2	Conveyor Drive Wheel	05700-002-67-03
3	1	Belt Sprocket, Large	06105-002-75-22
4	1	Drive Shaft	05700-004-63-85
5	1	Drive Assembly Chain	05700-002-88-43
6	1	L-R Drive Motor Assembly, 208/230 V Drive Motor Assembly, 460 V Gear Drive Only, 208/230/460 V R-L Drive Motor Assembly, 208/230 V Drive Motor Assembly, 460 V Gear Drive Only, 208/230/460 V	L-R 05700-002-66-38 05700-002-68-55 06105-002-68-52 R-L 05700-004-76-90 05700-004-80-76 06105-004-76-74
		L-R/R-L Drive Motor Only, 208/230 V Drive Motor Only, 460 V	L-R/R-L 06105-002-87-69 06105-002-87-70
7	1	Conveyor Shut-off Assembly	05700-004-74-66
8	1	Conduit, 1" x 62 3/4"	05700-004-79-00
9	2	Straight Plastic Fitting, 1"	05975-011-70-75
10	1	Switch Box	05700-004-74-88
11	1	Junction Box	05700-004-74-92
12	1	Strainer	05700-004-73-25
13	2	Guide Block	05700-004-74-77
14	2	Shelf Stop Bracket	05700-004-74-84
15	1	Upper Rail 1	05700-004-74-96
16	1	Lower Rail 1	05700-004-75-25
17	1	Base Assembly	05700-004-63-73
18	1	Drain	05700-003-02-24
19	1	Upper Rail 2	05700-005-11-06
20	1	Lower Rail 2	05700-005-14-67
21	2	Bolt, Spring Holding, 3/8"	05340-002-87-02
22	2	Spring	05340-002-87-62
23	1	Limit Switch, Conveyor Shut-off Kit, Limit Switch Install, L-R Kit, Limit Switch Install, R-L	05700-005-00-31 06401-005-00-16 06401-005-00-20
24	2	Nut, Hex, 3/8-16	05310-276-01-00
25	2	Bushing, Bronze	05700-004-74-75
26	2	Bushing, Nylon	05700-004-74-72
27	2	Bolt, Socket Head, Shoulder	05700-004-74-73
28	1	Belt Sprocket, Small	06105-002-75-21

STRAIGHT EXPANSION SECTION



ANGLED EXPANSION SECTION

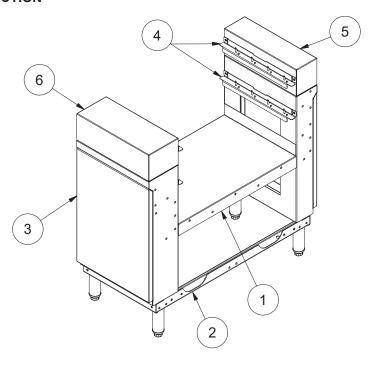
Risers on Unload Expansion are angled if it's the last section before the Unload Section. Parts are identical to the above except for the risers.



UNLOAD 36" EXPANSION

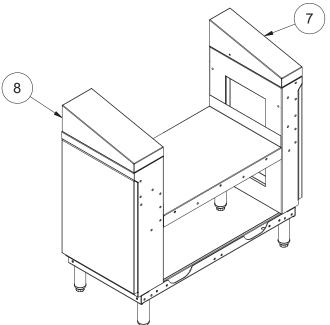
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tank	05700-004-80-28
2	1	Base	05700-004-80-30
3	2	Side Dress Panel	05700-004-80-21
4	4	Conveyor Rail, Lower Rear	05700-004-62-24
5	1	Riser, Rear Straight	05700-004-81-24
6	1	Riser, Front Straight	05700-004-81-22
7	1	Riser, Rear Angled, L-R Riser, Rear Angled, R-L	05700-004-81-35 05700-004-81-39
8	1	Riser, Front Angled, L-R Riser, Front Angled, R-L	05700-004-81-25 05700-004-81-37

STRAIGHT EXPANSION SECTION



ANGLED EXPANSION SECTION

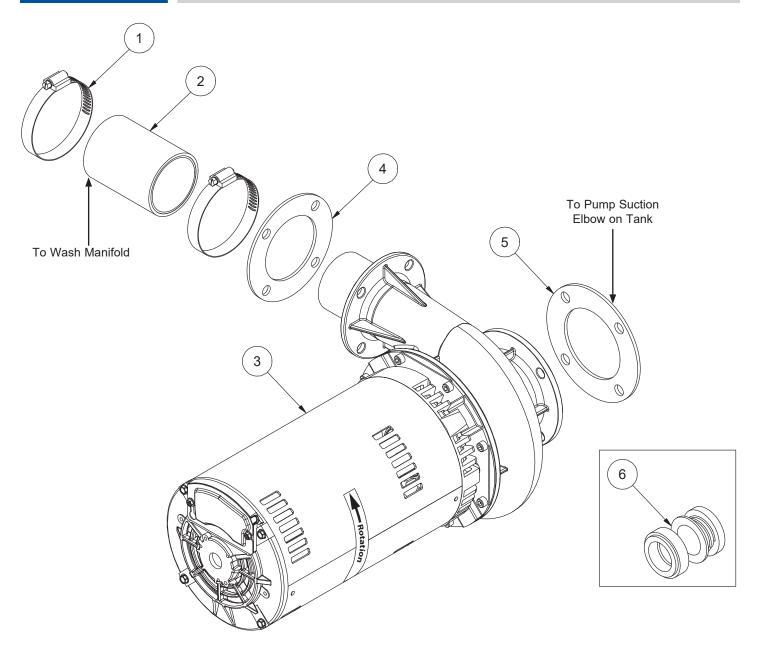
Risers on Unload Expansion are angled if it's the last section before the Unload Section. Parts are identical to the above except for the risers.



UNLOAD 18" EXPANSION

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tank	05700-004-80-37
2	1	Base	05700-004-80-40
3	2	Side Dress Panel	05700-004-80-41
4	4	Conveyor Rail, 18" Unload Expansion	05700-004-81-55
5	1	Riser, Rear Straight	05700-004-81-44
6	1	Riser, Front Straight	05700-004-81-42
7	1	Riser, Rear Angled, L-R Riser, Rear Angled, R-L	05700-004-81-47 05700-004-81-51
8	1	Riser, Front Angled, L-R Riser, Front Angled, R-L	05700-004-81-45 05700-004-81-49

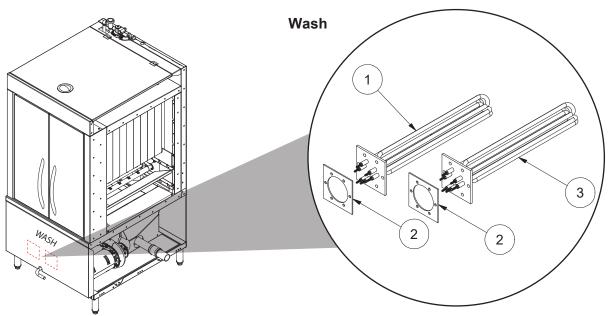
PRE-WASH/WASH/POWER RINSE MOTOR



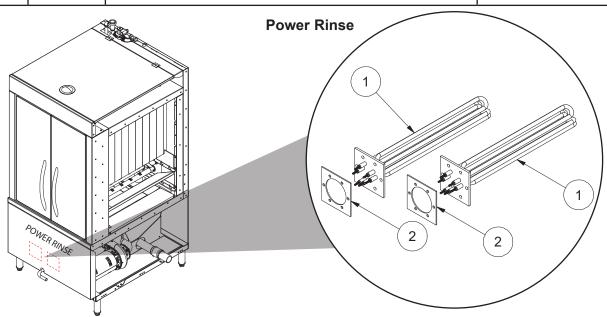
ITEM	QTY*	DESCRIPTION	PART NUMBER
1	2	Hose Clamp, 2 9/16" to 3 1/2"	04730-003-15-40
2	1	Drain Hose, 2 1/2" ID	05700-004-67-02
3	1	Pump & Motor Assembly, 3 HP	06105-004-56-23
4	1	Pump Discharge Gasket	05330-003-75-88
5	1	Pump Suction Gasket	05330-003-75-87
6	1	Pump Seal	05330-002-34-22

^{*}Each section (Pre-wash, Wash, and Power Rinse) contains the complete assembly shown above.

WASH/POWER RINSE HEATERS

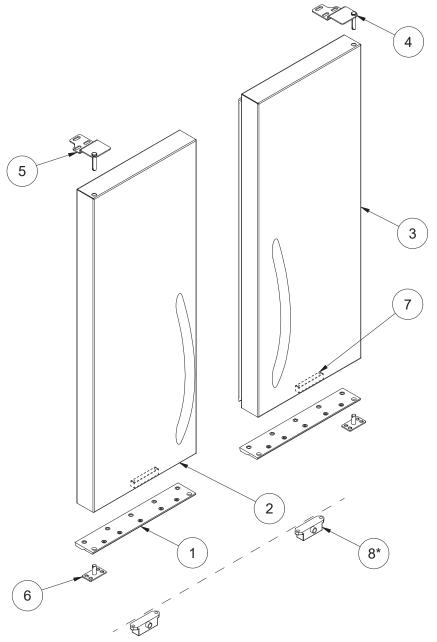


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Heater, 12 kW, 208 V Heater, 12 kW, 230 V Heater, 12 kW, 460 V	04540-004-56-21 04540-004-79-53 04540-004-79-54
2	2	Heater Gasket	05330-200-02-70
3	1	Heater, 15 kW, 208 V Heater, 15 kW, 230 V Heater, 15 kW, 460 V	04540-121-68-45 04540-121-68-46 04540-121-68-47



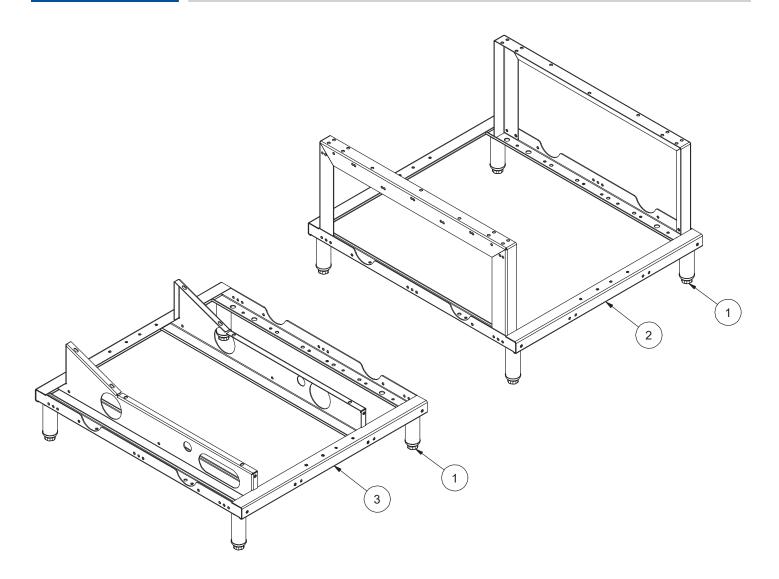
ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Heater, 15 kW, 208 V Heater, 15 kW, 230 V Heater, 15 kW, 460 V	04540-121-68-45 04540-121-68-46 04540-121-68-47
2	2	Heater Gasket	05330-200-02-70

DOORS



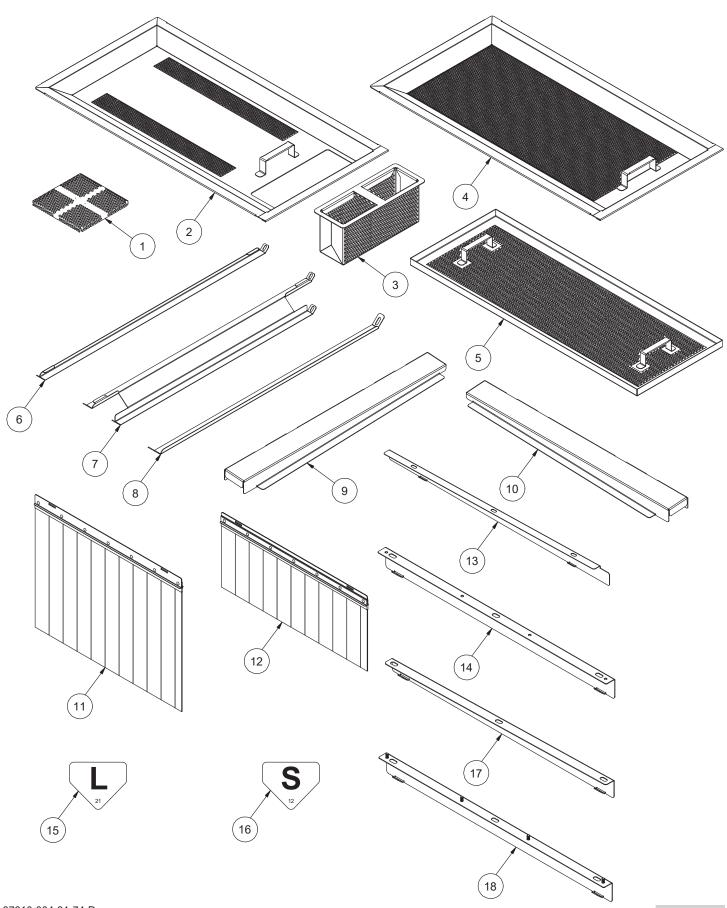
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Door Block (included in door assembly)	05700-004-31-36
2	1	Door Assembly, Left	05700-004-72-25
3	1	Door Assembly, Right	05700-004-72-30
4	1	Door Hinge, Right	05700-004-16-57
5	1	Door Hinge, Left	05700-004-16-56
6	2	Door Hinge Pin, Bottom	05700-004-62-22
7	2	Magnet, 3/8" x 2 1/2" (included in door assembly)	05930-111-51-68
8*	2	Switch, Door Safety	05930-002-36-80

^{*}Located on machine frame under door.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	4 per	Adjustable Foot Flanged Foot	05340-011-71-74 05340-002-15-47
2	1	Frame, Blower/Dryer Section Frame, Electrical Section (Not Shown)	05700-004-77-63 05700-004-62-76
3	1	Frame, Pre-Wash/Wash/Power Rinse Sections	05700-004-56-90
4	1	Frame, Load Expansion (Not Shown)	05700-004-81-58

STRAINERS & CURTAINS



STRAINERS & CURTAINS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Strainer, Load Strainer, Unload Retainer, Strainer, Load and Unload (Not Shown)	05700-003-22-99 05700-004-73-25 05700-004-65-46
2	1	Pan Strainer, Pre-wash	05700-004-62-02
3	1	Scrap Basket, Pre-wash	05700-004-61-64
4	1 per	Pan Strainer, Wash/Power Rinse	05700-004-62-03
5	2	Pan Strainer, Load Pan Strainer, Load Expansion	05700-004-75-66
6	1	Screen Rail One, Load	05700-004-65-51
7	1	Screen Rail Two, Load	05700-004-65-52
8	1	Screen Rail Three, Load	05700-004-65-53
9	1 per	Strainer Support, Side, Pre-Wash/Wash, L-R & R-L Strainer Support, Side, Pre-Wash/Wash, L-R & R-L	05700-004-61-59 05700-004-61-60
40	1 per	Strainer Support, Side, Power Rinse, L-R Strainer Support, Side, Power Rinse, L-R	05700-004-92-88 05700-004-92-87
10		Strainer Support, Side, Power Rinse, R-L Strainer Support, Side, Power Rinse, R-L	05700-004-61-60 05700-004-85-46
11	1 per	Curtain, Long	05700-002-79-70
12	1 per	Curtain, Short	05700-002-86-00
13	2 per	Curtain Holder, Load, Pre-Wash/Wash/Power Rinse, L-R Curtain Holder, Load, Pre-Wash/Wash/Power Rinse, R-L	05700-004-72-01 05700-004-76-06
14	1	Curtain Holder, Blower/Dryer Middle	05700-004-75-65
15	1 per	Decal, Long Curtain	09905-004-38-07
16	1 per	Decal, Short Curtain	09905-004-38-05
17	3	Curtain Holder, Controls, L-R Curtain Holder, Controls, R-L	05700-004-63-59 05700-004-63-60
18	1	Curtain Holder, Blower/Dryer Unload End	05700-004-75-26

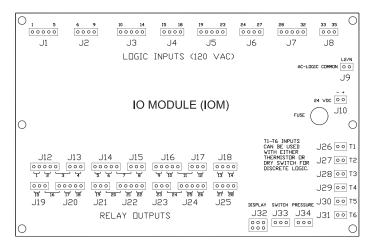
208-230-460 VOLT/50-60 HZ/3 PHASE

LEGEND 208/230/460 VAC 60Hz 3-PHASE

TB1-TB4 GND H1 H2 H3 H4 H5 M1 M2 M3 M4 M5 M6 HC1 HC2 HC3 MC1 MC2 MC3 MC4 MC5 MC4 MC5 MC6 R1 R2 R3 R4 R5 R6	POWER DISTRIBUTION BLOCKS EARTH GROUND HEATER 1, WASH 208 VOLTS, 12KW HEATER 2, WASH 208 VOLTS, 12KW HEATER 2, WASH 208 VOLTS, 12KW HEATER 2, RINSE 208 VOLTS, 12KW HEATER 2, RINSE 208 VOLTS, 12KW HEATER 2, RINSE 208 VOLTS, 14KW HEATER, BLOWER 208 VOLTS, 9KW (OPTION) MOTOR, POWER RINSE PUMP 208 VOLTS, 6.8A MOTOR, EXHAUST FAN 208 VOLTS, 4.2HP, 1.0A MOTOR, PEWASH PUMP 208 VOLTS, 3HP, 8.5A MOTOR, BLOWER (OPTION) CONTACTOR 1, WASH HEATER CONTACTOR 2, WASH HEATER CONTACTOR 2, RINSE HEATER CONTACTOR, BLOWER HEATER (OPTION) CONTACTOR, WASH PUMP MOTOR CONTACTOR, POWER RINSE PUMP MOTOR CONTACTOR, POWER RINSE PUMP MOTOR CONTACTOR, PEWASH PUMP MOTOR CONTACTOR, PREWASH PUMP MOTOR CONTACTOR, PREWASH PUMP MOTOR CONTACTOR, DRIVE MOTOR, HIGH SPEED CONTACTOR, BRIVE MOTOR, HIGH SPEED CONTACTOR, DRIVE MOTOR, HIGH SPEED CONTACTOR, DRIVE MOTOR, REVERSER RELAY, PEWASH TANK FILL RELAY, WASH TANK FILL RELAY, BOUSTER CONTROL POWER RELAY, POWER RINSE TANK FILL RELAY, POWER SAFETY PELAY WASH PIMP SAFETY	S11 S12 S13 S14 S15 S16 S17 S18 S19 S21 S22 S23 S23 SNS1 SNS2 SNS3 SNS5 TS1 TS2 TS3 TS2 TS3 TS4 TS5 DL1 DL2 DL3 DL4 DL5 DL6 DL7 DL8 FSPW1 FSPW2	SWITCH, DODR 2 PREWASH SECTION SWITCH, DODR 1 WASH SECTION SWITCH, DODR 1 WASH SECTION SWITCH, DODR 1 POWER RINSE SECTION SWITCH, DODR 1 POWER RINSE SECTION SWITCH, DODR 2 BUTCH RINSE SECTION SWITCH, DODR 1 BLOWER RINSE SECTION SWITCH, DODR 2 BLOWER DRYER (OPTIONAL) SWITCH, DODR 2 BLOWER DRYER (OPTIONAL) SWITCH, DRIVE-MOTOR SPEED SELECTOR SWITCH, DRIVE-MOTOR JAM SWITCH, SLIDE-STOP SWITCH, MANUAL/AUTOMATIC MODE SENSOR, TEMPERATURE, PREWASH SENSOR, TEMPERATURE, PREWASH SENSOR, TEMPERATURE, FINAL RINSE SENSOR, TEMPERATURE, FINAL RINSE SENSOR, WATER PRESSURE, FINAL RINSE THERMOSTAT, HIGH LIMIT, WASH THERMOSTAT, HIGH LIMIT, INTERNAL BLOWER MOTOR THERMOSTAT, HIGH LIMIT, INTERNAL BLOWER MOTOR THERMOSTAT, HIGH LIMIT, INTERNAL BLOWER MOTOR THERMOSTAT, HIGH LIMIT, BLOWER HEATER OVERLOAD RELAY, WASH PUMP MOTOR OVERLOAD RELAY, WASH PUMP MOTOR OVERLOAD RELAY, PREWASH PUMP MOTOR OVERLOAD RELAY, DRIVE MOTOR IOW SPEED OVERLOAD RELAY, DRIVE MOTOR REVERSER FLOAT SWITCH, PREWASH BOTTOM
	·		
		TS5	
		DL1	OVERLOAD RELAY, WASH PUMP MOTOR
	· ·	DL2	OVERLOAD RELAY, POWER RINSE PUMP MOTOR
		□L3	OVERLOAD RELAY, EXHAUST FAN MOTOR
		□L4	OVERLOAD RELAY, PREWASH PUMP MOTOR
	·		
R3	RELAY, POWER RINSE TANK FILL		
R4	RELAY, BOOSTER CONTROL POWER		
R5	RELAY, PREWASH PUMP SAFETY		
R6	RELAY, WASH PUMP SAFETY		
R7	RELAY, POWER RINSE PUMP SAFETY	FSW1	FLOAT SWITCH, WASH TOP
FRS	SOLENDID, FINAL RINSE	FSW2	FLOAT SWITCH, WASH BOTTOM
PWFS	SOLENOID, PREWASH TANK FILL	FSPR1 FSPR2	FLOAT SWITCH, POWER RINSE TOP FLOAT SWITCH, POWER RINSE BOTTOM
WFS	SOLENOID, WASH TANK FILL	PE1	PHOTO EYE, EMITTER
PRFS	SOLENOID, POWER RINSE TANK FILL	PE2	PHOTO EYE, RECEIVER
SK	SWITCH, KEYED (OPTION)	E1	LAMP, RUN MODE, LOAD SECTION
S1	SWITCH, MAIN POWER ON/OFF (MAINTAINED, LIGHTED)	E2	LAMP, RUN MODE, CONTROL SECTION
25	SWITCH, START, MAIN CONTROL SECTION (LIGHTED)	E3	LAMP, RUN MODE, UNLOAD SECTION
S3 S4	SWITCH, START, LOAD SECTION (LIGHTED) SWITCH, START, UNLOAD SECTION (LIGHTED)	T1	TRANSFORMER, CONTROL
S5	SWITCH, START, UNLUAD SECTION (LIGHTED) SWITCH, STOP MAIN CONTROL SECTION	F1	FUSE, CONTROL 2A/250VAC, SLOW-ACTING
26	SWITCH, STOP LOAD SECTION	F2	FUSE, RINSE AID 0.2A/250VAC, SLOW-ACTING
S7	SWITCH, STOP UNLOAD SECTION	F3	FUSE, DETERGENT 0.2A/250VAC, SLOW-ACTING
28	SWITCH, TURBO RINSE (MAINTAINED, LIGHTED)	F4	FUSE, EXT FAN CON 0.2A/250VAC, SLOW-ACTING
S9	SWITCH, DELIME (MAINTAINED, LIGHTED)	F5	FUSE, CONSTANT VOLTAGE 0.5A/250VAC,SLOW-ACTING
S10	SWITCH, DOOR 1 PREWASH SECTION	F6	FUSE, PREWASH FAN 0.2A/250VAC, SLOW-ACTING
	one on the original desiration of the original or the original origi	F7	FUSE, WASH FAN 0.2A/250VAC, SLOW-ACTING
		F8	FUSE, POWER RINSE 0.2A/250VAC, SLOW-ACTING

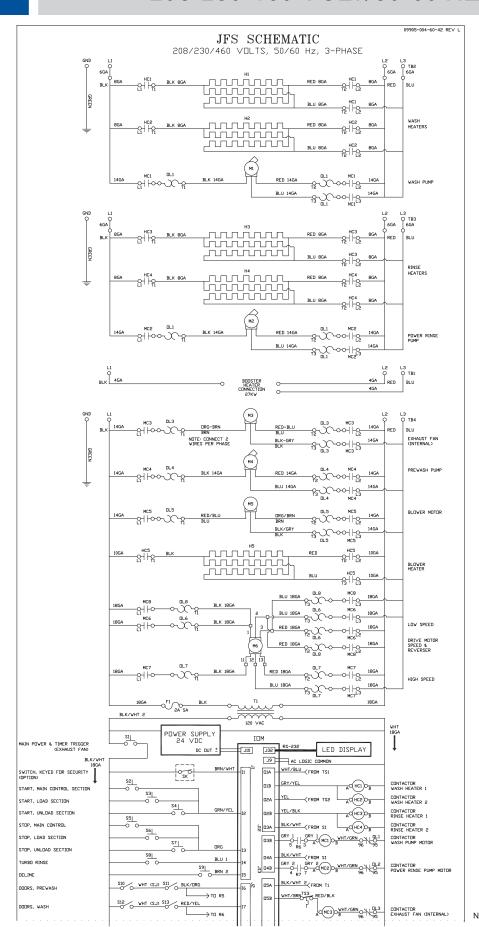
NOTES

- R4 IS TO BE INSERTED BETWEEN THE TRANFORMER & POWER SWITCH OF THE EXISTING BOOSTER WIRING. POWER SWITCH REMAINS IN "ON" POSITION. HIGH-LIMIT SWITCH USES WHITE LEADS, WHICH CONNECT TO COLORED MACHINE WIRING AS SHOWN.
- IF BELT IS FUNCTIONING IN REVERSE OF NORMAL OPERATION, SWAP RED AND BLACK WIRES ON MOTOR CONTACTOR (M6)
- IF MULTIPLE PREWASH SECTIONS ARE ADDED, ALL PREWASH DOOR SWITCHES AND FLOAT SWITCHES WILL BE WIRED IN SERIES
- IF MULTIPLE BLOWER DRYER SECTIONS ARE ADDED, ALL BLOWER DRYER DOOR SWITCHES AND THERMOSTATS WILL BE WIRED IN SERIES
- S23 IS USED TO OPERATE THE MACHINE BASED OFF OF EITHER THE PHOTOEYE SIGNAL(AUTOMATIC) OR A CONSTANT SIGNAL FROM L1 FROM THE TRANSFORMER (MANUAL)



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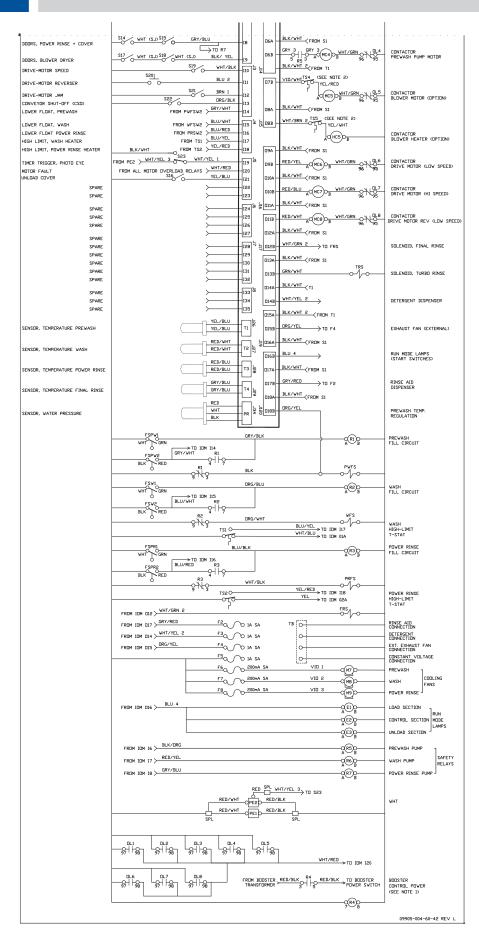
208-230-460 VOLT/50-60 HZ/3 PHASE



SCHEMATICS

208-230-460 VOLT/50-60 HZ/3 PHASE





SCHEMATICS

STEAM 208-230-460 VOLT/50-60 HZ/3 PHASE

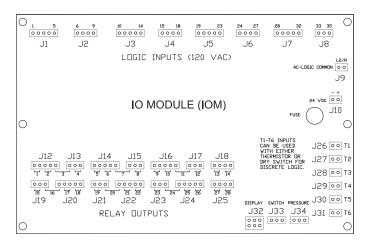
LEGEND 208/230/460 VAC 60Hz 3-PHASE

тв1-тв4	POWER DISTRIBUTION BLOCKS	221	SWITCH, DRIVE-MOTOR JAM
GND	EARTH GROUND	222	SWITCH, SLIDE-STOP
GIAD	EARTH GROOM	223	SWITCH, MANUAL/AUTOMATIC
M1	METER MACH RING 200 METER 200 254	SNS1	SENSOR, TEMPERATURE, PREWASH
	MOTOR, WASH PUMP 208 VOLTS, 3HP, 2.5A	SNSS	SENSOR, TEMPERATURE, WASH
M2	MOTOR, POWER RINSE PUMP 208 VOLTS, 6.8A	SNS3	SENSOR, TEMPERATURE, POWER RINSE
мз	MOTOR, EXHAUST FAN 208 VOLTS, 42HP, 1.0A	SNS4	SENSOR, TEMPERATURE, FINAL RINSE
M4	MOTOR, PREWASH PUMP 208 VOLTS, 3HP, 8.5A	SNS5	SENSOR, WATER PRESSURE, FINAL RINSE
M5	MOTOR, BLOWER (OPTION)	DL1	OVERLOAD RELAY, WASH PUMP MOTOR
M6	MOTOR, DRIVE 208 VOLTS, 25HP, 1.4A	DL2	OVERLOAD RELAY, POWER RINSE PUMP MOTOR
MC1	CONTACTOR, WASH PUMP MOTOR		
MC2	CONTACTOR, POWER RINSE PUMP MOTOR	DL3	OVERLOAD RELAY, EXHAUST FAN MOTOR
MC3	CONTACTOR, EXHAUST FAN MOTOR	OL4	OVERLOAD RELAY, PREWASH PUMP MOTOR
MC4	CONTACTOR, PREWASH PUMP MOTOR	DL5	OVERLOAD RELAY, BLOWER MOTOR (OPTION)
MC5	CONTACTOR, BLOWER MOTOR (OPTION)	□L6	OVERLOAD RELAY, DRIVE MOTOR HIGH SPEED
MC6	CONTACTOR, DRIVE MOTOR, LOW SPEED	OL7	OVERLOAD RELAY, DRIVE MOTOR LOW SPEED
MC7	CONTACTOR, DRIVE MOTOR, HIGH SPEED	DL8	OVERLOAD RELAY, DRIVE MOTOR REVERSER
MC8	CONTACTOR, DRIVE MOTOR REVERSER	FSPW1	FLOAT SWITCH, PREWASH TOP
R1	RELAY, PREWASH TANK FILL	FSPW2	FLOAT SWITCH, PREWASH BOTTOM
R2	RELAY, WASH TANK FILL	FSW1	FLOAT SWITCH, WASH TOP
R3	RELAY, POWER RINSE TANK FILL	FSW2	FLOAT SWITCH, WASH BOTTOM
R4	RELAY, BOOSTER CONTROL POWER	FSPR1	FLOAT SWITCH, POWER RINSE TOP
R5	RELAY, PREWASH PUMP SAFETY	FSPR2	FLOAT SWITCH, POWER RINSE BOTTOM
R6	RELAY, WASH PUMP SAFETY	PE1	PHOTO EYE, EMITTER
R7	RELAY, POWER RINSE PUMP SAFETY	PE2	PHOTO EYE, RECEIVER
FRS	· ·	E1	LAMP, RUN MODE, LOAD SECTION
	SOLENOID, FINAL RINSE	E2	LAMP, RUN MODE, CONTROL SECTION
PWFS	SOLENOID, PREWASH TANK FILL	E3	LAMP, RUN MODE, UNLOAD SECTION
WFS	SOLENDID, WASH TANK FILL	T1	TRANSFORMER, CONTROL
PRFS	SOLENDID, POWER RINSE TANK FILL	F1	FUSE, CONTROL 2A/250VAC, SLOW-ACTING
SK	SWITCH, KEYED (OPTION)	F2	FUSE, RINSE AID 0.2A/250VAC, SLOW-ACTING
S1	SWITCH, MAIN POWER ON/OFF (MAINTAINED, LIGHTED)	F3	FUSE, DETERGENT 0.2A/250VAC, SLOW-ACTING
25	SWITCH, START, MAIN CONTROL SECTION (LIGHTED)	F4	FUSE, EXT FAN CON 0.2A/250VAC, SLOW-ACTING
23	SWITCH, START, LOAD SECTION (LIGHTED)	F5	FUSE, CONSTANT VOLTAGE 0.5A/250VAC, SLOW-ACTING
S4	SWITCH, START, UNLOAD SECTION (LIGHTED)	F6	FUSE, PREWASH 0.2A/250VAC, SLOW-ACTING
25	SWITCH, STOP MAIN CONTROL SECTION	F7	FUSE, WASH FAN 02A/250VAC, SLOW-ACTING
26	SWITCH, STOP LOAD SECTION		
S7	SWITCH, STOP UNLOAD SECTION	F8	FUSE, POWER RINSE FAN 0.2A/250VAC, SLOW-ACTING
82	SWITCH, TURBO RINSE (MAINTAINED, LIGHTED)		SPLICE
89	SWITCH, DELIME (MAINTAINED, LIGHTED)	SSW	SOLENDID, WASH STEAM COIL
S10	SWITCH, DOOR 1 PREWASH SECTION	PRSS	SOLENOID, POWER RINSE STEAM COIL
S11	SWITCH, DOOR 2 PREWASH SECTION	BHSS	SOLENOID, STEAM BLOWER HEATER (OPTION)
S12	SWITCH, DOOR 1 WASH SECTION	BSS	SOLENOID, STEAM BOOSTER HEATER
S13	SWITCH, DOOR 2 WASH SECTION	TS1	BOOSTER THERMOSTAT
S14	SWITCH, DOOR 1 POWER RINSE SECTION		
S15	SWITCH, DOOR 2 POWER RINSE SECTION		
S16	SWITCH, COVER		
S17	SWITCH, DOOR 1 BLOWER DRYER (OPTIONAL)		
S18	SWITCH, DOOR 2 BLOWER DRYER (OPTIONAL)		
S18	SWITCH, DRIVE-MOTOR SPEED SELECTOR		
317	SWITCH, DRIVE-MUTUR SPEED SELECTOR		

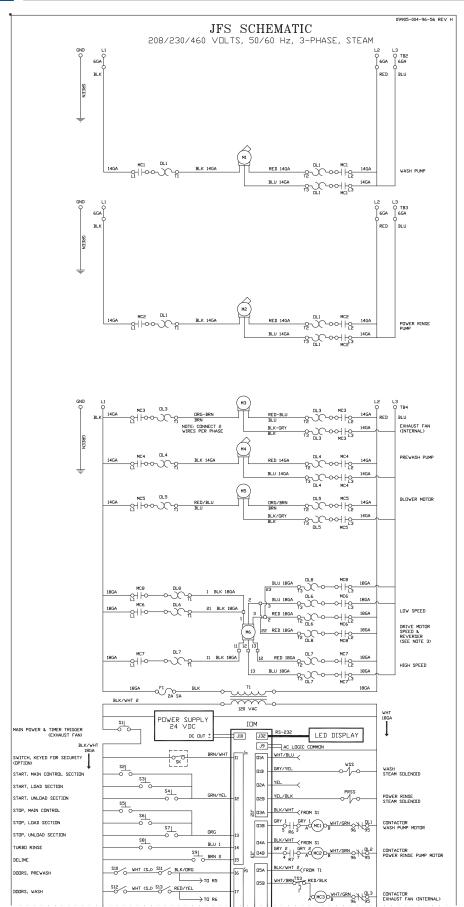
NOTES

- 1. R4 IS TO BE INSERTED BETWEEN THE L1 AND THE COMMON ON THE BOOSTER THERMOSTAT
 2. HIGH-LIMIT SWITCH USES WHITE LEADS, WHICH CONNECT TO COLORED MACHINE WIRING AS SHOWN.
 3. IF BELT IS FUNCTIONING IN REVERSE OF NORMAL OPERATION, SWAP RED AND BLACK WIRES ON MOTOR CONTACTOR (M6)
- IF MULTIPLE PREWASH SECTIONS ARE ADDED, ALL PREWASH DOOR SWITCHES AND FLOAT SWITCHES WILL BE WIRED IN SERIES

 IF MULTIPLE BLOWER DRYER SECTIONS ARE ADDED, ALL BLOWER DRYER DOOR SWITCHES AND THREMOSTATS WILL BLOWER DRYER DOOR SWITCHES AND THREMOSTATS WILL
- BE WIRED IN SERIES
- S23 IS USED TO DPERATE THE MACHINE BASED OFF OF EITHER THE PHOTOEYE SIGNAL(AUTOMATIC) OR A CONSTANT SIGNAL FROM L1 FROM THE TRANSFORMER (MANUAL)



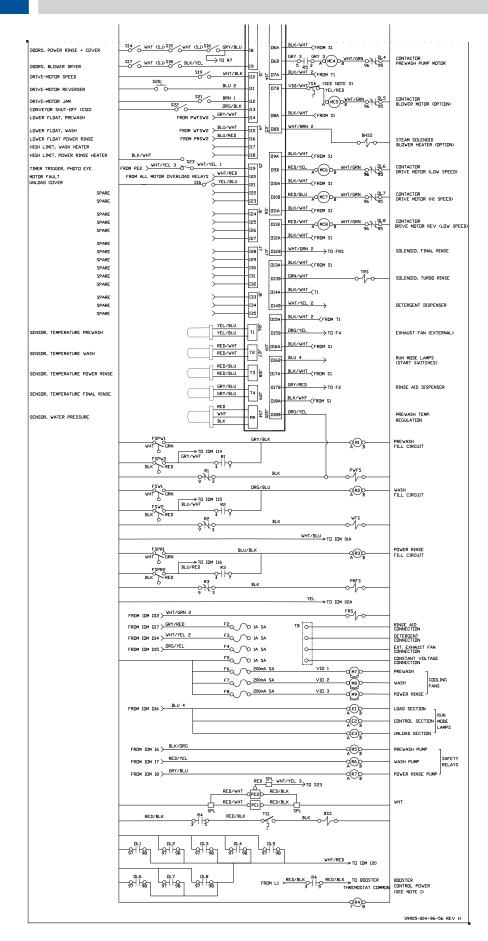
STEAM 208-230-460 VOLT/50-60 HZ/3 PHASE



SCHEMATICS

STEAM 208-230-460 VOLT/50-60 HZ/3 PHASE







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