



**TECHNICAL MANUAL
FLIGHT-TYPE DISHMACHINES
Master/Clipper RC**

Includes Installation, Operation, and Maintenance Instructions

Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996

800.344.4802

Fax 215.624.6966

www.insingermachine.com



Thank you for purchasing this quality Insinger product.

On the space provided below please record the model, serial number and start-up date of this unit:

Model: _____

Serial Number: _____

Start-Up Date: _____

When referring to this equipment please have this information available.

Each piece of equipment at Insinger is carefully tested before shipment for proper operation. If the need for service should arise please contact your local Authorized Insinger Service Company.

A Service Network Listing is provided on our web site, www.insingermachine.com or call Insinger at 800-344-4802 for your local authorized servicer.

For proper activation of the *Insinger Limited Warranty* a SureFire™ Start-Up & Check-Out Service should be completed on your machine. Refer to the Introduction section in this manual for an explanation of Insinger SureFire™ Start-Up & Check-Out Program.

Please read the Insinger Limited Warranty and all installation and operation instructions carefully before attempting to install or operate your new Insinger product.

To register your machine for warranty by phone, fax or the internet or for answers to question concerning installation, operation, or service contact our Technical Services Department:

TECHNICAL SERVICE CONTACTS	
Toll-Free	800-344-4802
Fax	215-624-6966
E-mail	service@insingermachine.com
Web	www.insingermachine.com

TABLE OF CONTENTS

Part 1	
Technical Information	3-13
• Introduction	
• Cut-sheets & Installation Drawings	
• Warranties	
Part 2	
Installation Instructions	14-15
• Installation and Start-Up Procedures	
Part 3	
Operating & Cleaning Instructions	16-17
• Operating Procedures	
• Cleaning Procedures	
Part 4	
Maintenance & Repair Procedures	18-20
• Maintenance & Repair Procedures	
• Basic Service Guide	
Part 5	
Electrical Schematics & Replacement Parts	21-31
• Machine Wiring Diagrams	
• Control Panel Layout & Component Drawings	
Part 6	
Spare Parts List	32
• Recommended Spare Parts List	
Part 7	
Replacement Parts	33-73
• Overall Assembly Drawings for:	
Clipper RC	
Master RC	
• Conveyor Overload Assembly	
• Pump Assemblies	
• Fill & Final Rinse Piping Assemblies	
• Photo-eye Assembly	
• Level Float & Detergent Probe Locations	
• Curtain Locations	
• Electrical Heaters	
• Steam Heating	
• Lighting Parts	
• Conveyor Assemblies	

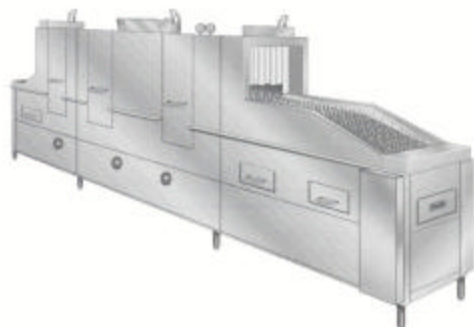


Item # _____

CLIPPER RC

AUTOMATIC THREE TANK RACKLESS CONVEYOR DISHWASHER

CSI - 11400



DESIGN

Automatic conveyor, flight type three tank dishwasher with recirculating prewash, wash and rinse and fresh water final rinse. Capacity is 8,812 dishes per hour with a conveyor speed of 6.8 ft. per minute. Designed for left or right hand conveyor travel, as specified.

STANDARD EQUIPMENT

- Exclusive CrossFire® Wash system (patented)
- Tank heat: 60 KW electric immersion heaters or steam injectors
- Capillary thermometers for prewash, wash, rinse and final rinse
- Final rinse pressure gauge
- Vacuum breaker on all incoming water lines
- Manifold cleanout brush
- S/S frame, legs and feet
- Inspection and cleanout doors
- Automatic tank fill
- Low water protection
- Detergent connection provision
- Door safety switches
- SureFire™ Start-Up and Check-Out Service
- Top mounted NEMA 12 control panel
- Steam booster
- Simplified scrap screen design
- Exhaust connections with adjustable dampers
- Standard frame drip proof motors
- Conveyor reversing switch
- Polypropylene belt with removable rack sections
- Conveyor safety stop bar
- Override switch for de-liming
- Interior work lights

OPTIONAL ACCESSORY EQUIPMENT

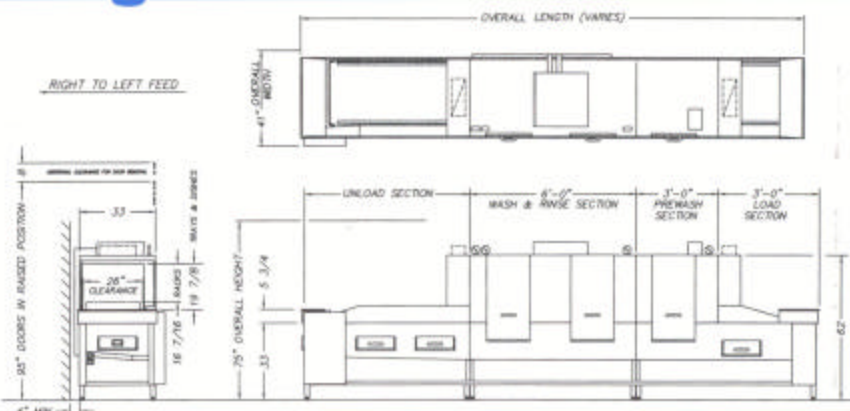
- Stainless steel steam coil tank heat
- Pressure reduction valve and line strainer
- Stainless steel belt with removable rack sections
- Single point electrical connection: motors, controls, and heaters
- Security package
- Electric booster
- S/S front enclosure panel
- S/S panels all sides
- Insulated hood and doors
- Totally enclosed motors
- 5 inch wide conveyor section for washing flatware



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CSI - 11400



Note: For all rough in connections see Installation and Layout Detail Drawing.

SPECIFICATIONS

CONSTRUCTION - Hood and tank constructed of 16 gauge 18-8 type 304 S/S. Hood unit of all welded seamless construction. S/S frame, legs and feet. All internal castings are non-corrosive nickel alloy, bronze or S/S investment.

DOORS - Three extra large die formed 18-8 type 304 S/S front inspection doors riding in all S/S channels. A triple ply leading edge on the door channels made of S/S with no plastic or nylon sleeves or liners used. Two intermediate S/S door-safety stops on each door.

CONVEYOR - Polypropylene or S/S rack sections on S/S belt with Hi-D rollers and removable rack sections. Conveyor drive system includes large speed reducer with cut gears operating in oil bath and frictionless, trouble-free overload release system. Dishware conveyed automatically through all washing and rinsing systems and is driven by an independent 1/2 HP motor. A stop bar sits at the end of the unload section. This will shut off the conveyor if any ware reaches the bar. A reversing switch is provided to assist in removing jams in the belt.

PUMPS - Centrifugal type "packless" pump with a brass petcock drain. Construction includes ceramic seal and a balanced cast impeller on a precision ground stainless steel shaft. All working parts mounted as an assembly and removable as a unit without disturbing pump housing. Two 2 HP motors, 1725 RPM- wash and rinse; and 1 1/2 HP- 1725 RPM prewash, standard horizontal C-face frame, drip proof, internally cooled with ball-bearing construction.

CONTROLS - Top-mounted control cabinet, NEMA 12 rated with heat insulation provided between hood and control cabinet, housing motor controls and overload protection, transformer, contactors and all dishwasher integral controls. All controls safe low voltage 24 VAC.

ENERGY SAVER - Electric photo-eye automatically operates the final rinse solenoid only when ware passes, saving water and energy. The photo eye also activates an adjustable timer control. If no ware passes during the set time, the machine shuts down.

SPRAY SYSTEM - Spray arms are made of 18-8 type 304 stainless steel pipe. Spray assemblies removable without the use of tools.

PREWASH - Upper and lower manifolds. One manifold above with 3 power wash arms, each designed with 7, 6 & 7 high pressure action cleansing slots and one manifold below with 3 power wash arms, each designed with 4 high pressure action cleansing slots. The slots are precision milled for water control, producing a fan spray. Prewash arms are fillet welded to the S/S manifold.

WASH - Upper and lower manifolds & the CrossFire® Wash System (patented). One manifold above with 3 power wash arms designed with 7, 6 & 7 high pressure action cleansing slots and one manifold below with 3 power wash arms, each designed with 6 high pressure action cleansing slots. The slots are precision milled for water control producing a fan spray. Wash arms are fillet welded to the S/S manifold. The CrossFire® system provides 4 horizontally spraying high pressure nozzles.

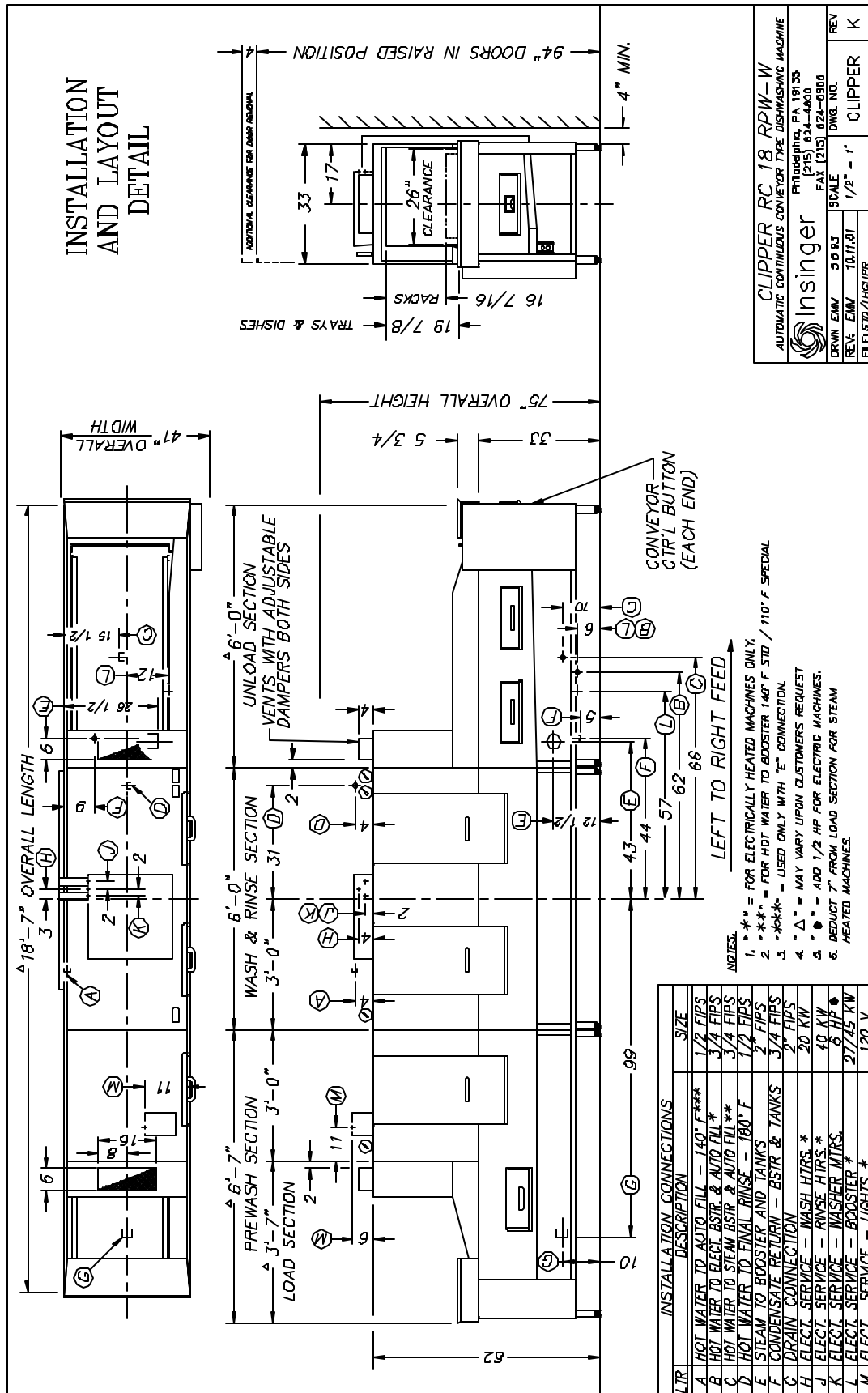
RINSE - Upper and lower manifolds. One manifold above with 3 power rinse arms, designed with 7, 6 & 7 high pressure action cleansing slots and one manifold below with 3 power rinse arms, each designed with 6 high pressure action cleansing slots. The slots are precision milled for water control, producing a fan spray. Rinse arms are fillet welded to the S/S manifold.

FINAL RINSE - Four nozzles above and multiple orifices below threaded into schedule 40 S/S pipes. Nozzles produce a fan spray reducing water consumption, maximizing heat retention.

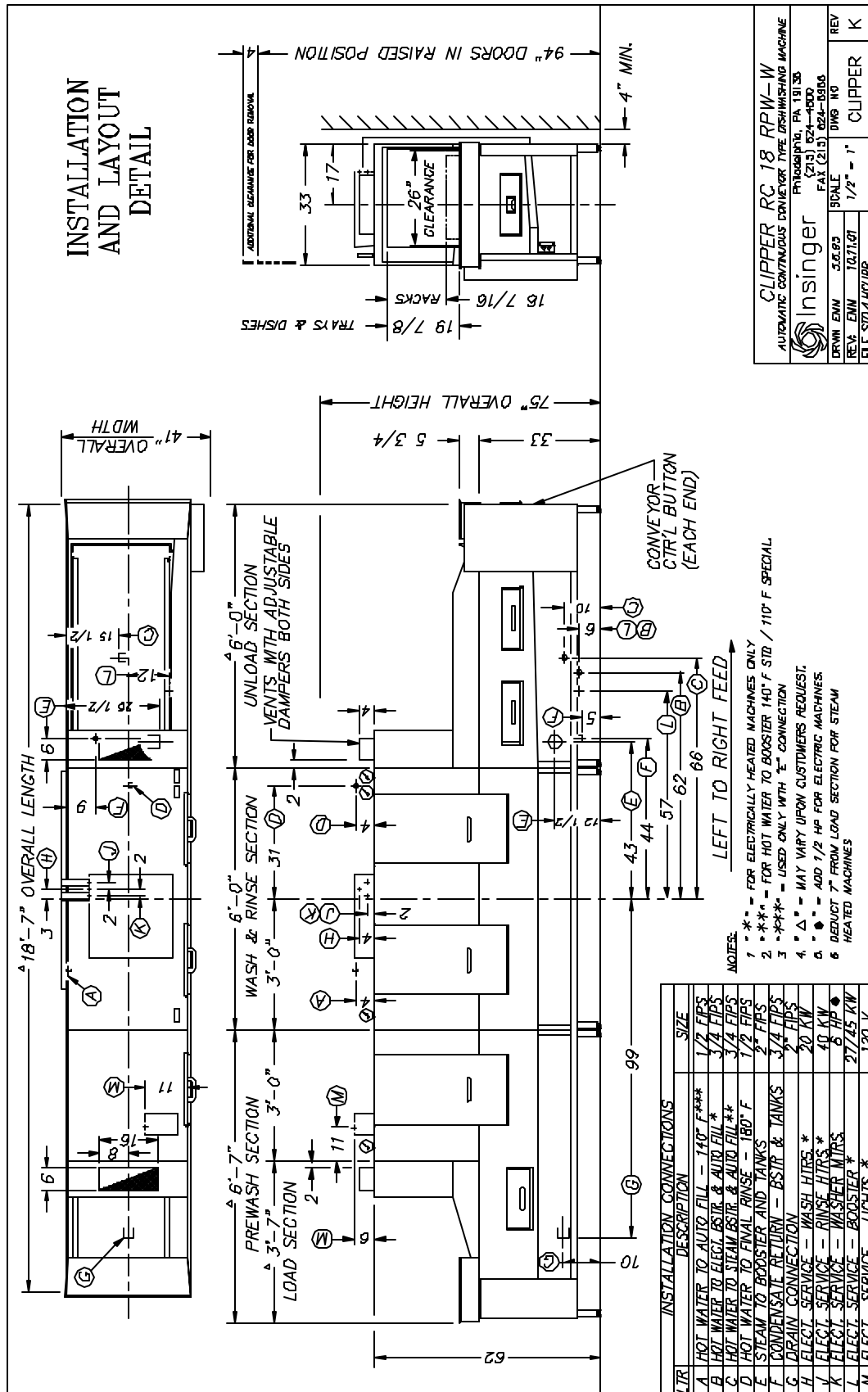
DRAIN - Drain valves externally controlled. Overflow assembly with skimmer cap is removable without use of tools for drain line inspection. Heaters protected by low water level control.

Capacity per hour	Tank capacity	Motor size	Electric usage	Steam consumption at 20 psi min.	Final rinse peak flow at 20 psi min.
8,812 dishes 500-1,000 meals	24 gals. (prewash) 27 gals. (wash) 30 gals. (rinse)	1 1/2 hp (prewash) 2 hp (wash) 2 hp (rinse) 1/2 hp (conveyor)	60 kw tanks 27 kw booster 40° rise 45 kw booster 70° rise	218 lbs./hr tank 79 lbs./hr rem. booster 40° rise 138 lbs./hr rem. booster 70° rise	3.7 gals./min.
Final rinse consumption at 20 psi min.	Exhaust hood requirement	Peak rate drain flow	Shipping weight	Current draw amps	Steam Electric w/o booster
222 gals./hr.	750 CFM Load 750 CFM Unload	23 gals./min.	3000 lbs. (21')	208/3/60 24.1 240/1/60 n/a 240/3/60 21.9 380/3/50 13.2 480/3/60 10.9	196.7 n/a 170.8 107.0 85.1

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CLIPPER RC 18 RPW-W			
AUTOMATIC CONTINUOUS CONVEYOR TYPE DISHWASHING MACHINE			
Insinger			
PHILADELPHIA, PA 19133			
(215) 834-4800			
FAX (215) 824-0900			
DRWN: EAM	500 RJ	SCALE	DWG. NO.
REV: EAM	10.11.01	1/2" = 1'	CLIPPER
FILED: STD/ALH/LPR			K



CLIPPER RC 18 RPW-W			
AUTOMATIC CONTINUOUS CONVEYOR TYPE DISHWASHING MACHINE			
Insinger			
PHILADELPHIA, PA 19135			
(215) 624-4800			
FAX (215) 624-6905			
DRWN ENW	3.8.89	SCALE	1/2" = 1"
REV. ENW	10/1/01	DWG NO	CLIPPER K
FILE STD/LR/UR			



Item # _____

MASTER RC

AUTOMATIC THREE TANK RACKLESS CONVEYOR DISHWASHER

CSI - 11400



DESIGN

Automatic conveyor, flight type three tank dishwasher with recirculating prewash, wash and rinse and fresh water final rinse. Capacity is 13,000 dishes per hour with a conveyor speed of 10.4 ft. per minute. Designed for left or right hand conveyor travel, as specified.

STANDARD EQUIPMENT

- Exclusive CrossFire® Wash system (patented)
- Tank heat: 60 KW electric immersion heaters or steam injectors
- Capillary thermometers for prewash, wash, rinse and final rinse
- Final rinse pressure gauge
- Vacuum breakers on all incoming water lines
- Manifold cleanout brush
- Inspection and cleanout doors
- S/S frame, legs and feet
- Automatic tank fill
- Low water protection
- Detergent connection provision
- SureFire™ Start-Up and Check-Out Service
- Top mounted NEMA 12 control panel
- Steam booster
- Simplified scrap screen design
- Door safety switches
- Exhaust connections with adjustable dampers
- Standard frame drip proof motors
- Conveyor reversing switch
- Polypropylene belt with removable rack sections
- Conveyor safety stop bar
- Override switch for de-liming
- Interior work lights

OPTIONAL ACCESSORY EQUIPMENT

- Stainless steel steam coil tank heat
- Pressure reduction valve and line strainer
- Stainless steel belt with removable rack sections
- Single point electrical connection: motors, controls, and heaters
- Electric booster
- Security package
- S/S front enclosure panel
- S/S panels all sides
- Insulated hood and doors
- Totally enclosed motors
- 5 inch wide conveyor section for washing flatware



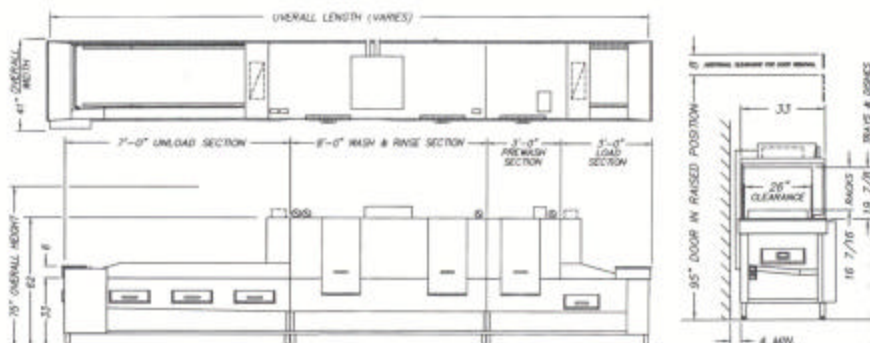
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Insinger

MASTER RC

CSI - 11400



Note: For all rough in connections see Installation and Layout Detail Drawing.

SPECIFICATIONS

CONSTRUCTION - Hood and tank constructed of 16 gauge 18-8 type 304 S/S. Hood unit of all welded seamless construction. S/S frame, legs and feet. All internal castings are non-corrosive nickel alloy, bronze or S/S investment.

DOORS - Three extra large die formed 18-8 type 304 S/S front inspection doors riding in all S/S channels. A triple ply leading edge on the door channels made of S/S with no plastic or nylon sleeves or liners used. Two intermediate S/S door-safety stops on each door.

CONVEYOR - Polypropylene or S/S rack sections on S/S belt with Hi-D rollers and removable rack sections. Conveyor drive system includes large speed reducer with cut gears operating in oil bath and frictionless, trouble-free overload release system. Dishware conveyed automatically through all washing and rinsing systems and is driven by an independent 1/2 HP motor. A stop bar sits at the end of the unload section. This will shut off the conveyor if any ware reaches the bar. A reversing switch is provided to assist in removing jams in the belt.

PUMPS - Centrifugal type "packless" pump with a brass petcock drain. Construction includes ceramic seal and a balanced cast impeller on a precision ground stainless steel shaft. All working parts mounted as an assembly and removable as a unit without disturbing pump housing. Two 3HP motors, 1725RPM - wash and rinse; and 2 HP - prewash, standard horizontal C-face frame, drip proof, internally cooled with ball-bearing construction.

CONTROLS - Top-mounted control cabinet, NEMA 12 rated with heat insulation provided between hood and control cabinet, housing motor controls and overload protection, transformer, contactors and all dishwasher integral controls. All controls safe low voltage 24 VAC.

ENERGY SAVER - Electric photo eye automatically operates the final rinse solenoid only when ware passes, saving water and energy. The photo eye also activates an adjustable timer control. If no ware passes during the set time, the machine shuts down.

SPRAY SYSTEM - Spray arms are made of 18-8 type 304 stainless steel pipe. Spray assemblies removable without the use of tools.

PREWASH - Upper and lower manifolds. One manifold above with 3 power wash arms, each designed with 7, 6 & 7 high pressure action cleansing slots and one manifold below with 3 power wash arms, each designed with 4 high pressure action cleansing slots. The slots are precision milled for water control, producing a fan spray. Wash arms are fillet welded to the S/S manifold.

WASH - Upper and lower manifolds & CrossFire® Wash system (patented). One manifold above with 3 power wash arms designed with 6, 5 & 6 high pressure action cleansing slots and one manifold below with 4 power wash arms, each designed with 6 high pressure action cleansing slots. The slots are precision milled for water control producing a fan spray. Wash arms are fillet welded to the S/S manifold. The CrossFire® system provides 4 horizontally spraying high pressure nozzles.

RINSE - Upper and lower manifolds. One manifold above with 3 power rinse arms, designed with 10, 9 & 10 high pressure action cleansing slots and one manifold below with 4 power rinse arms, each designed with 6 high pressure action cleansing slots. The slots are precision milled for water control, producing a fan spray. Rinse arms are fillet welded to the S/S manifold.

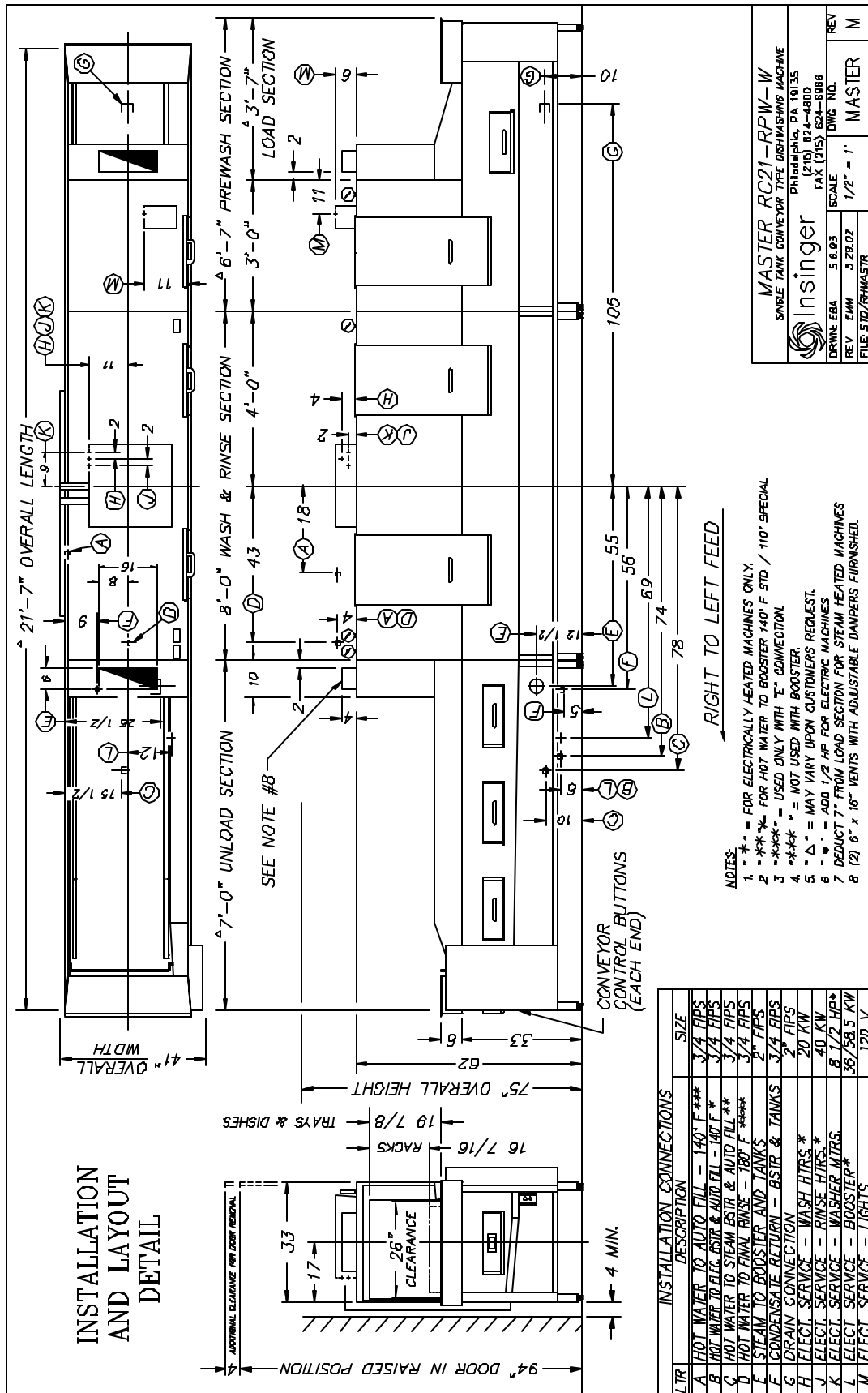
FINAL RINSE - Four nozzles above and four nozzles below threaded into S/S pipes. Nozzles produce a fan spray reducing water consumption, maximizing heat retention.

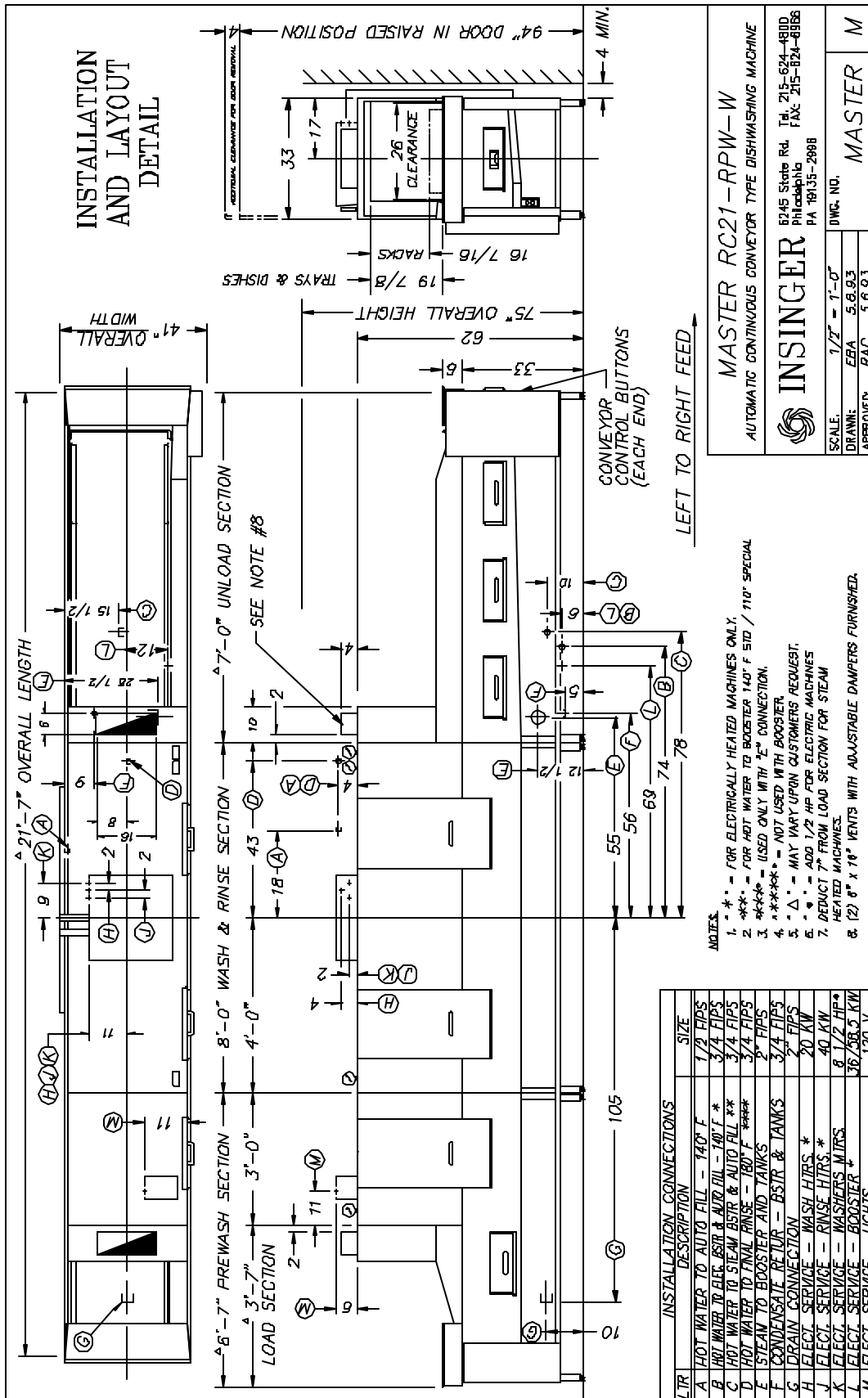
DRAIN - Drain valves externally controlled. Overflow assembly with skimmer cap is removable without use of tools for drain line inspection. Heaters protected by low water level control.

Capacity per hour	Tank capacity	Motor size	Electric usage	Steam consumption at 20 psi min.	Gas consumption
13,000 dishes 1,000-2,000 meals	24 gals. (prewash) 36 gals. (wash) 40 gals. (rinse)	2 hp (prewash) 3 hp (wash) 3 hp (rinse) 1/2 hp (conveyor)	60.0 kw tanks 36.0 kw booster 40° rise 58.5 kw booster 70° rise	218 lbs./hr tank 111 lbs./hr rem. booster 40° rise 195 lbs./hr rem. booster 70° rise	205,000 BTU/H 200 CFH nat. gas 82 CFH propane
Final rinse peak flow at 20 psi min.	Final rinse consumption at 20 psi min.	*Exhaust requirements	Peak rate drain flow	Current draw amps	Steam Gas w/o booster Electric w/o booster
5.24 gals./min.	314 gals./hr.	750 CFM Load 750 CFM Unload	23 gals./min.	208/3/60.....32.1.....39.3.....204.7 240/3/60.....29.1.....35.6.....178.0 380/3/50.....17.6.....21.6.....111.4 480/3/60.....14.5.....17.8.....88.7	
Shipping weight	Installation distance from vertical combustible service				
3327 lbs.	2"				

3M 01/03 PRINTED IN USA







MASTER/CLIPPER FLIGHT MACHINES

INTRODUCTION

Purpose

The purpose of this technical manual is to provide installation, operation, cleaning and maintenance directions.

A section is provided for replacement parts.

Scope

This manual contains all pertinent information to assist in the proper installation, operation, cleaning, maintenance, and parts ordering for Insinger Flight machines including the Clipper and Master.

The **installation instructions** are intended for qualified equipment installers. The **operation and cleaning instructions** are intended for the daily users of the equipment. The **maintenance and parts sections** are intended for qualified service and/or maintenance technicians. Replacement parts may be ordered directly from our factory or from your local Insinger Authorized Service Agency. You can speak to the **Insinger Technical Services Department, 800/344-4802**, or e-mail us at **service@insingermachine.com**. When calling for warranty information or replacement parts please provide the model and serial number of your Insinger Equipment. These important numbers should be noted in this manual on the spaces provided on the opening page.

Surefire™ Start-up & Check-out Program

Insinger is proud to offer our exclusive Surefire™ Start-up & Check-out Program to our commercial customers. This service is included in the purchase price of your new Insinger dishwasher. We will provide an authorized factory service technician for the initial start-up of your new Insinger dishwasher to ensure it is running at optimum levels from the very first pass. Please call the factory or your local Insinger Sales Representative to schedule this service.

NSF 3-2003 requirements for detergent and chemical sanitizer dispensers.

This machine must be operated with an automatic detergent dispenser and, if applicable, an automatic chemical sanitizer feeder, including a visual means to verify that detergents and sanitizers are delivered or a visual or audible alarm to signal if detergents and sanitizers are not available for delivery to the respective washing and sanitizing systems. Please see instructions for electrical and plumbing connections located in this manual and in the feeder equipment manual.

Definitions

Throughout this guide you will find the following terms: WARNING, CAUTION, & NOTE.

WARNING indicates potential physical danger.

CAUTION indicates potential equipment damage.

NOTE indicates helpful operating hints or tips.

You will visually be able to identify each as shown below:



WARNING:

Indicates potential physical danger.



NOTE:

Indicates helpful operating hints or tips.

CAUTION:

Indicates potential equipment damage.

INSINGER MACHINE COMPANY LIMITED WARRANTY

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it, then for a period of either 15 months from the date of shipment from Insinger or 1 year (12 months) from the date of installation, that said Insinger product shall be free from defects in material and workmanship. Whichever one of the two aforesated limited warranty time periods is the longest shall be the applicable limited warranty coverage time period.

Insinger may require reasonable proof of your date of purchase; therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the repair or replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger, this may be done through an Authorized Service Agency. Furnish serial number of machine with shipment and send to:

*Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996*

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid.

This limited warranty does not cover any failure or accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, acts of God or improper maintenance or service, or failure to perform normal and routine maintenance as set out in

the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet). Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing and or cleaning process.

Service must be done by either Insinger Appointed Service Agencies or agencies receiving prior authorization from Insinger.

All warranty work must be done during normal working hours, unless purchaser receives prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchant-ability and fitness or limited warranties as of this date, January 1, 1998. Some states do not allow limitation on how long an implied warranty lasts so this limitation may not apply to you.

Insinger is not liable for any special, indirect or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation nor exclusion may not apply to you.

Insinger does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment: and no such representations are binding on Insinger.

**INSINGER MACHINE COMPANY LIMITED WARRANTY
COMMERCIAL MARINE USE**

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it (installation manual), then for a period of 18 months from the date of installation on board the vessel, that said Insinger product shall be free from defects in material and workmanship.

Insinger may require reasonable proof of your date of equipment install, therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger. Furnish serial number of machine with shipment and send to:

*Insinger Machine Company, Inc.
6245 State Road
Philadelphia, PA 19135-2996*

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid. If part damages are not covered, Insinger will contact Customer and advise.

If a factory trained authorized technician is required to repair or replace defective parts or material during the 18 month warranty period, the cruise line will be responsible for the payment of travel expense and a minimum of four hours labor. Labor will be billed to the

customer at a reduced rate of \$40.00 per hour. If sailing with a vessel is required, then an eight hour per day minimum will apply.

This limited warranty does not cover accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, or improper maintenance or service, or failure to perform normal and routine maintenance as set out in the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet).

Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing, caring and or cleaning process.

Warranty service must be done by either Insinger Appointed Service Agencies or agencies, customers galley engineers receiving prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchantability and fitness or limited warranties as the above date.

Insinger does not authorize any person or company locally or overseas to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment; and no such representations are binding on Insinger.

INSTALLATION INSTRUCTIONS

Placement

Carefully uncrate machine.

Bolt the three sections together.



NOTE:

Use a silicone caulking between the sections in addition to the gasketing material provided. This will minimize the possibility of leaks.

Electrical Connections

Connect electrical lines sized for the correct voltage, current and phase of the machine. These should agree with machine requirements indicated on the nameplate and labels in control panel.

On machines not provided with a single-point connection there is an electrical connection required for the, **1.** Pumps and control circuit, **2.** Wash tank heaters (electric heat only) and, **3.** Rinse tank heaters (electric only).

Machines provided with a single-point connection require one electrical connection in the control panel for all functions excluding the booster.



NOTE:

In each case connections must be made to a circuit breaker or fused disconnect as provided by the end-user and required by local codes. A wiring diagram is supplied inside the control panel. Please return diagram when finished.



NOTE:

As with any 3 phase system, an electrician should check all motors for proper phasing, i.e., Pump motors must be running in direction indicated by arrow on housing.

Electrical termination points are also required between each of the sections in the termination box located on the frame in the rear of the machine near where the sections meet.

Mechanical Requirements

Connect 140°F and 180°F water supply to the tank and final rinse feeds respectively as tagged on the machines and noted on the installation drawing.

If machine is provided with steam heat connect the steam lines and steam condensate lines as tagged and noted on installation drawings.

Connect the drain lines.



NOTE:

Drain lines must be as specified on installation drawings. Drain line should be properly vented and should have fall of not less than 1/4" to the foot of proper flow. Some area plumbing codes require drains to flow into an open gap with an opening twice the diameter of the pipe. Check with your local plumbing codes for the type of drain connection required.



NOTE:

All lines should be flushed prior to use to remove debris.



NOTE:

Do not reduce the size of lines as specified in installation drawings. All lines are sized to facilitate necessary flows, pressures, etc.

Adjust the compression spring located on the conveyor overload shutoff mechanism. This can be found on the unload end of the machine under the mechanism guard. There is sticker marked with the factory test setting of the spring. Adjust to this point then run the conveyor full of ware. If the machine does not shut down the adjustment is set. If it does shut down adjust the spring tighter until the machine runs continuously.

HVAC

Ventilation system should be sized to provide adequate ventilation per machine specs. Refer to spec sheet.

Stainless steel, watertight ducting should be connected to the vent cowls on each end of the machine or an overhead venting system should be installed.

Chemicals

Upon completed installation of the dishwasher contact a local detergent/chemical supplier for the correct chemicals for your area.

Electrical connection points for the detergent dispenser and rinse injector are located inside the control panel. Refer to the wiring diagram for this machine for the proper connection points. The detergent density probe should be located in a convenient place in the wash tank.

Insinger dishwashers are user-friendly, making them the easiest dishwashers on the market to operate and maintain.

By following the operation procedure and general cleaning procedures your Insinger dishwasher will give you years of trouble free service.

OPERATION INSTRUCTIONS

1. Ensure drain overflow tube is in place. Close all tank drain valves. One drain is provided for each tank of the dish machine.
2. Check for proper installation and cleanliness of all internal, removable components such as suction strainers, scrap screens, and spray manifolds.
3. Ensure all water, and steam lines are open. Ensure electrical circuits are on.
4. Close machine doors.



NOTE:

An interlock is provided to shut the machine down if the doors are open, therefore the machine will not run if doors are opened. Machines provided with the Prison Package do not have this feature.

5. Move the 2 position selector switch to the "ON" position.
6. The machine will automatically begin to fill.
7. When the tanks are full the tank heat will operate automatically.



NOTE:

To ensure proper operation of the auto tank fill feature and the tank heaters the two (2) level probes located in each tank MUST be cleaned daily.

8. Depress the Green button on the control panel to operate the pumps.
9. Located at the load and unload end of the machine is a start/stop station for operating the conveyor system. Depress the green button to start the conveyor.



NOTE:

An emergency stop bar is located at the end of the conveyor belt to shut the belt down. This will minimize ware breakage if the machine is not unloaded in time.

10. For machines provided with the Conveyor Overload Shutoff Mechanism a light labeled "Check Conveyor Belt" is provided on the control panel. When this light illuminates the machine will automatically shut down. Check the conveyor belt for jamming or ware caught in the belt.



NOTE:

Should the light illuminate and the machine shut-down after an initial check for jams, DO NOT continue running the machine. Immediately contact a maintenance person or qualified service technician. Refer to the Conveyor Overload Shutoff Mechanism Adjustment section in the Maintenance Section of the manual.

11. The system is now ready for operation. All ware should be properly scrapped.
12. Place dirty ware on the conveyor belt. The ware will pass through the various machine cycles. The final rinse is automatically started when ware passes the photo-eye located at the entrance of the machine.



NOTE:

The photo-eye located at the entrance of the machine should be cleaned daily of lime build-up for proper operation of the energy saver feature and the final rinse.



NOTE:

Move the Power toggle switch to the "OFF" position before draining the machine.

13. Refer to the cleaning procedures for proper clean-up of the dish machine.
14. Report any unusual occurrences to qualified service personnel.

CLEANING PROCEDURES

The following cleaning procedures should be done daily, at the end of the shift.

Daily

1. Remove all internal removable parts including spray manifolds, scrap screens, drain overflow tubes, suction strainers and curtains.
2. Remove the end caps from the spray manifolds and clean with the brush provided. Flush the manifolds.
3. Flush scrap screens.
4. Clean drain overflow tube.



NOTE:

V-cup seal on the drain overflow tube may become gummed not allowing a proper seal of the overflow tube. This will cause the drain to leak water. Remove any build-up on the V-cup seal. When the seal becomes worn, replace.

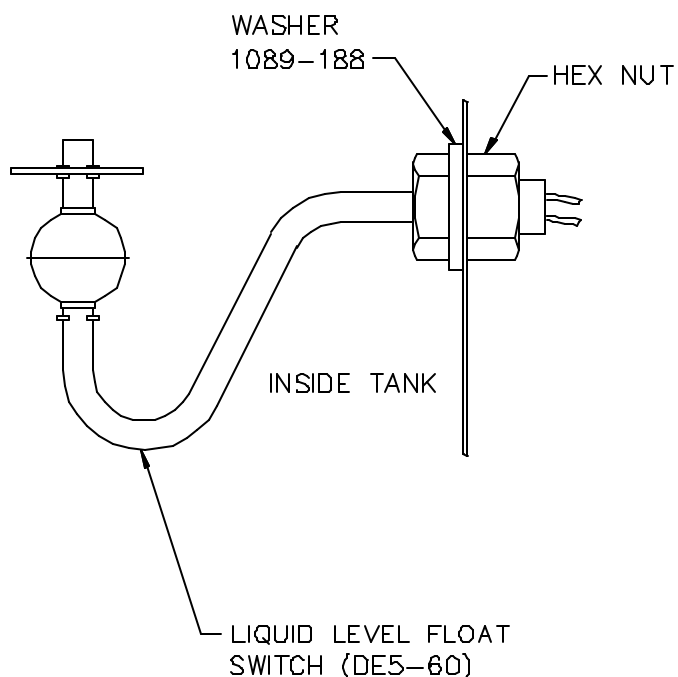
5. Clean suction strainers of build-up.



NOTE:

Improper cleaning of suction strainer will cause the pumps to cavitate. This will cause poor washing results.

6. Clean tank level floats (2 per tank) with Scotch-Brite or equivalent.



WARNING:

Level floats must be cleaned daily. Build-up of grease and scum will cause faulty operation of tank fill and heating system.

7. Clean curtains. When curtains are beyond cleaning or torn they should be replaced.
8. Final rinse nozzles should be cleaned of matter clogging the jet spray.
9. Clean the photo-eye lenses with a damp, soft cloth.
10. Doors should be left open to allow drying of interior surfaces.

The following is a basic guide for the repair and replacement of common dishwasher parts. Refer to the Basic Service Guide for troubleshooting tips.

MAINTENANCE REQUIREMENTS

Daily

1. Refer to the operation and cleaning instructions provided in this manual for daily cleaning procedures.

Weekly

1. The entire machine should be wiped down using an industrial grade stainless steel cleaner.
2. Under the supervision of your detergent supplier the machine interior must be properly de-limed.



NOTE:

The water quality in some areas requires de-liming to be done more frequently. Contact your detergent supplier for recommended de-liming frequency.

Quarterly

1. Remove and clean the strainer screens on water and steam lines. If the screens cannot be cleaned, replace.
2. Inspect condition of solenoid valve seats and diaphragms. Replace where necessary.
3. Inspect drain O-Rings for leakage. Replace where necessary.
4. Adjust conveyor chain tension using adjustment bolts located on exit end of machine.

MAINTENANCE PROCEDURES

Solenoid Valve Disassembly

1. Disconnect power supply to machine. Turn off water supply.
2. Remove cap on top of coil. Remove coil.
3. Remove 4 hex bolts and lift bonnet from valve body. Note positioning of spring and plunger.
4. Remove main piston.
5. Inspect for dirt, wear or lime build-up. Clean or replace as required.
6. Reassemble in reverse of disassembly.

Line Strainer Disassembly

1. Shut off water or steam supply.
2. Remove large hex nut on bottom of strainer body.
3. Remove strainer screen. Inspect and clean or replace as necessary.
4. Reassemble in reverse of disassembly. Water flow must be same direction as arrow on line strainer body. Use new gaskets to insure a tight seal.

Pump Disassembly

1. Before disassembling pump ensure there are no obstructions in the pump intake. Remove and clean the suction strainer (inside tank). See dwg. SK-4702 and SK-4702
2. IT IS NOT NECESSARY TO REMOVE THE PUMP HOUSING FROM THE MACHINE TO DISASSEMBLE THE PUMP.
3. Remove the pump motor and impeller adaptor by removing the 4 hex bolts attaching them to the pump housing.
4. Repair or replace the pump parts as required. Reassemble in reverse of disassembly.

Immersion Heater Replacement

1. The immersion heater MUST be completely submerged at all times. If this is not the case contact a qualified service technician. The heated surface should never be in contact with sludge. See dwg. SK-4703
2. Remove the housing covering the wiring terminations. Disconnect the immersion heater wires.
3. Remove the immersion heater by loosening and removing the large hex nut.
4. Install in reverse of removal.

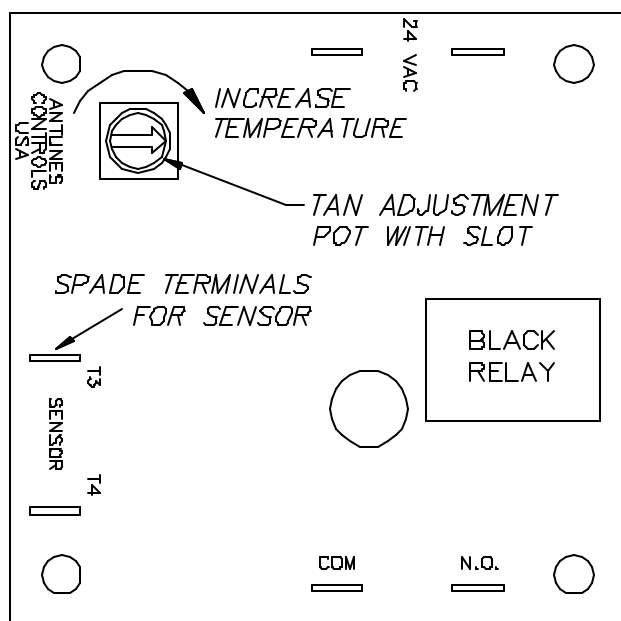


NOTE:

Use plumbers putty as gasketing around the immersion heater to insure no leaks.

Tank Heat Temperature Adjustment

1. A temperature control board is provided in the control panel for easy adjustment of tank temperature. Though tank temperature is adjusted during the machines factory test it is sometimes necessary to re-adjust the temperature at start-up.
2. Locate the temperature control board (P/N DE9-251). Use the control panel layout drawing located in Part 5, Electrical Schematic and Replacement Parts.
3. Adjust the tank temperature to the desired temperature by turning the potentiometer located on the temperature control board. An arrow on the potentiometer indicates increase.



TANK TEMPERATURE CONTROL BOARD
(DE9-251)

Troubleshooting Tank Temperatures

Electric Heat

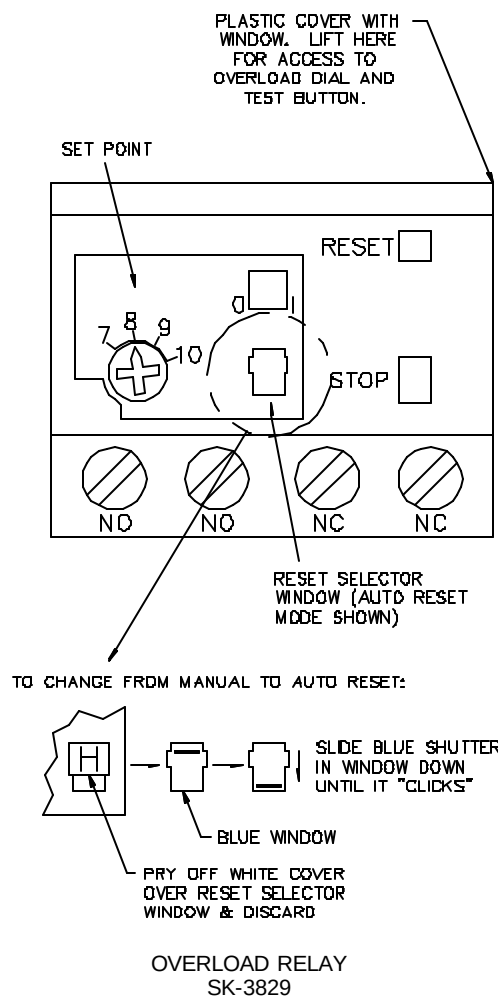
1. If temperature cannot be adjusted, check the temperature control board P/N DE9-251 proper operation. If the temperature control board is faulty, replace.
2. Verify tank heat contactor is working correctly. If not, replace. Verify all immersion heaters are working properly and not limed. If not, replace.

Steam Heat

1. If temperature cannot be adjusted, check the temperature control board P/N DE9-251 proper operation. If the temperature control board is faulty, replace.
2. Verify steam pressure per machine specifications.
3. Verify steam trap is not clogged. If so, replace.

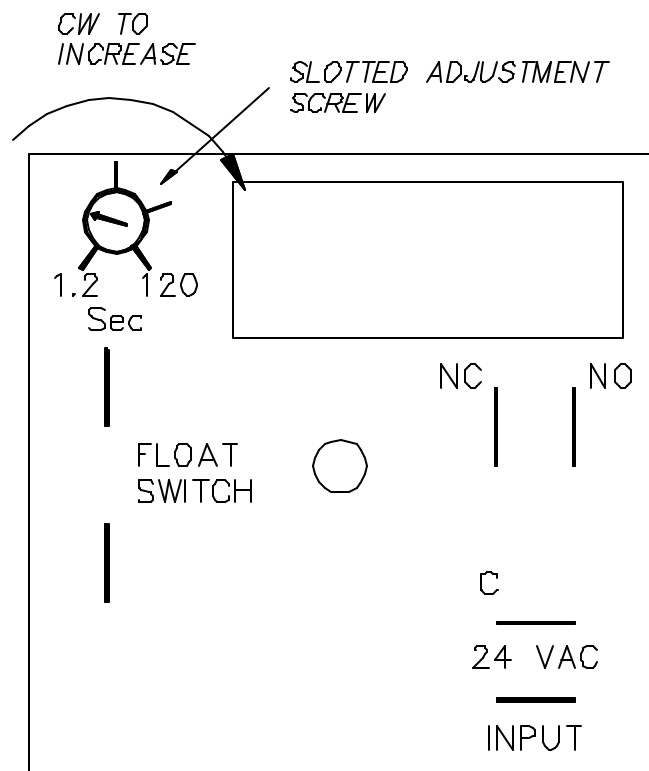
Motor Overloads

1. All motors used on Insigner Machines are provided with motor overloads. Motor overloads are adjusted when the machines are factory tested. Should it be necessary to adjust the motor overloads in the field first verify the motor current draw for the voltage the machine is using.
2. Using the Control Panel Component Layout Dwg. located in Part 5 to identify the overload adjust by turning the dial to the appropriate AMP draw.



Level System

1. The level control system consists of a level board (P/N DE7-35) for both the wash and rinse tank and a level float (P/N DE5-60) per tank.
2. The level float will not allow the tank heat to energize without water in the tank.



LIQUID LEVEL TIMER DE7-35

SKETCHA\SK-4698

Final Rinse Actuator

1. The final rinse is actuated by the photo-eye emitter and receiver located at the entrance to the machine. See dwg. 1100-265.
2. When the beam is broken by a plate, etc., the final rinse time is energized turning on the final rinse solenoid and allowing the water to flow. After one minute the timer will de-energize turning the solenoid off. The energy saver timer (P/N DE7-28) is reset to 0 at the same time the final rinse timer is energized. The energy saver timer is adjustable between 0-300 SEC.

Conveyor Belt Adjustment

1. The conveyor belt tension is adjustable by locating two adjustment bolts on the load side of the machine. The bolts can be moved in and out of the conveyor follower shaft therefore adjusting the belt tension.

Conveyor Overload Shut-off Mechanism Adjustment (P/N 1100-289)

1. A clutchless overload is used to shut the machine completely down should a jam occur in the conveyor system. The jam may be caused by ware being caught, bent tracks or misalignment of the conveyor belt.

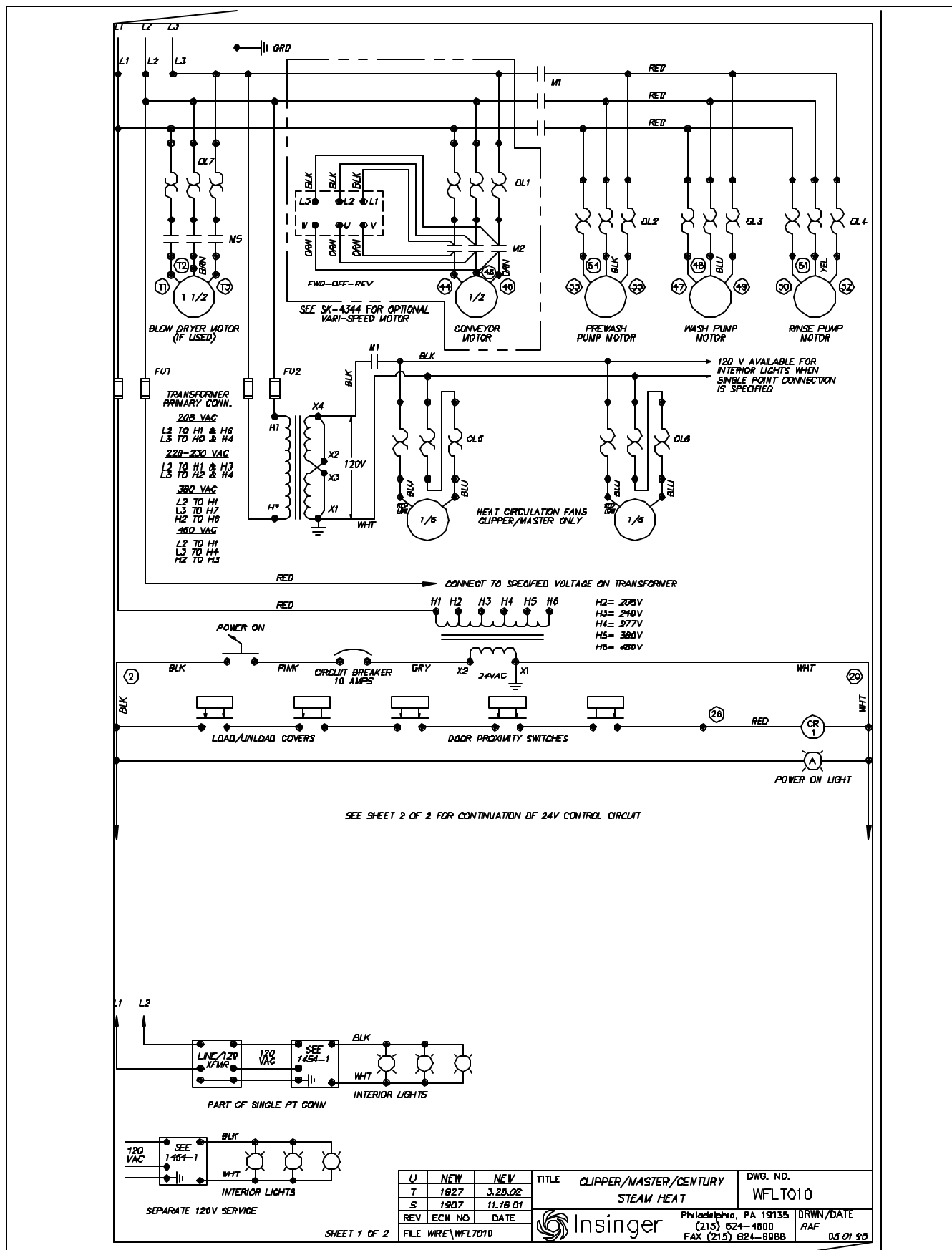
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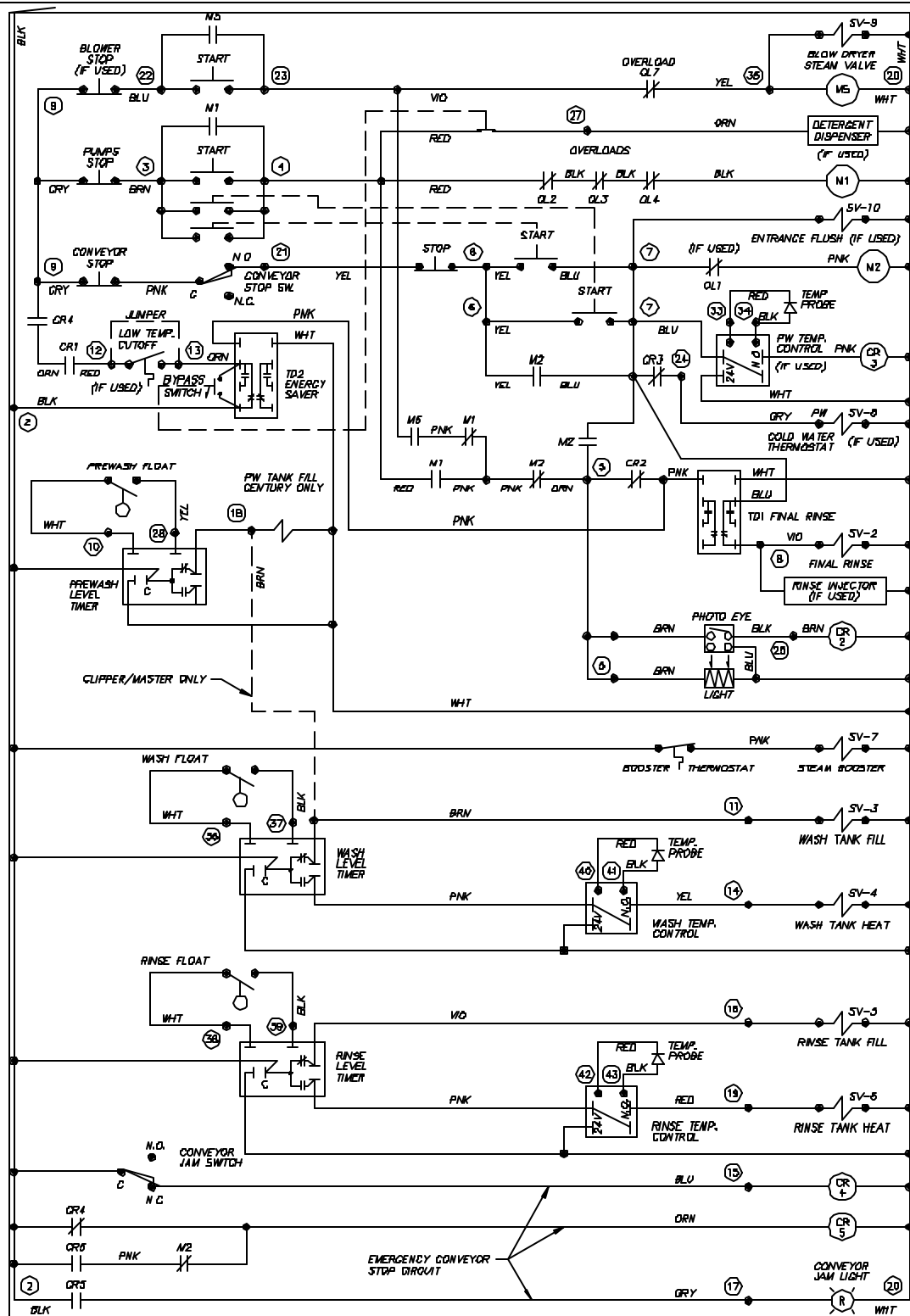
Should the tank heat energize without water in the tank, troubleshoot the system to find the problem. Check the floats.



WARNING:

Dirty level floats will cause the tank heat to energize with no water in the tanks. LEVEL FLOATS MUST BE CLEANED DAILY.

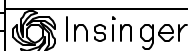


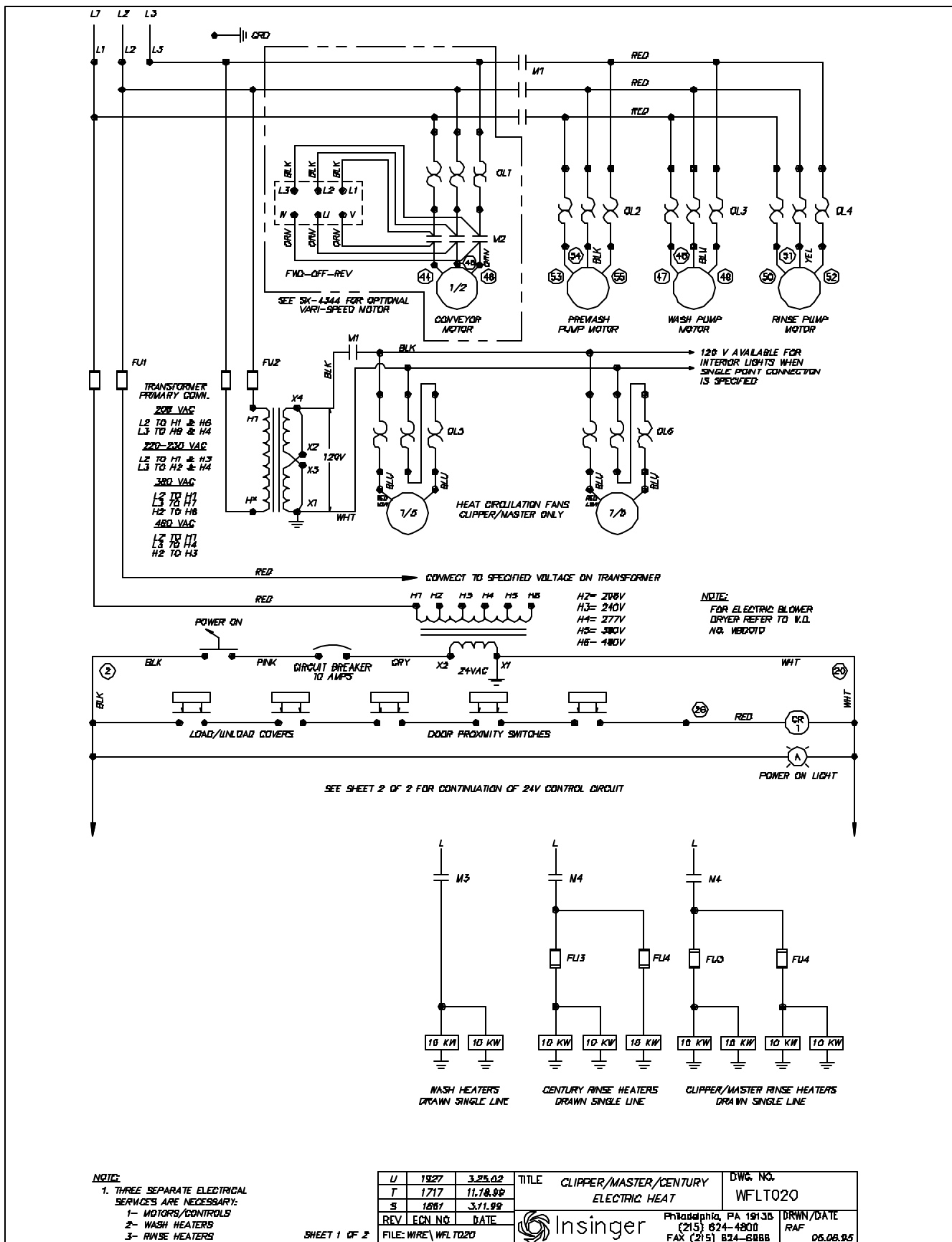


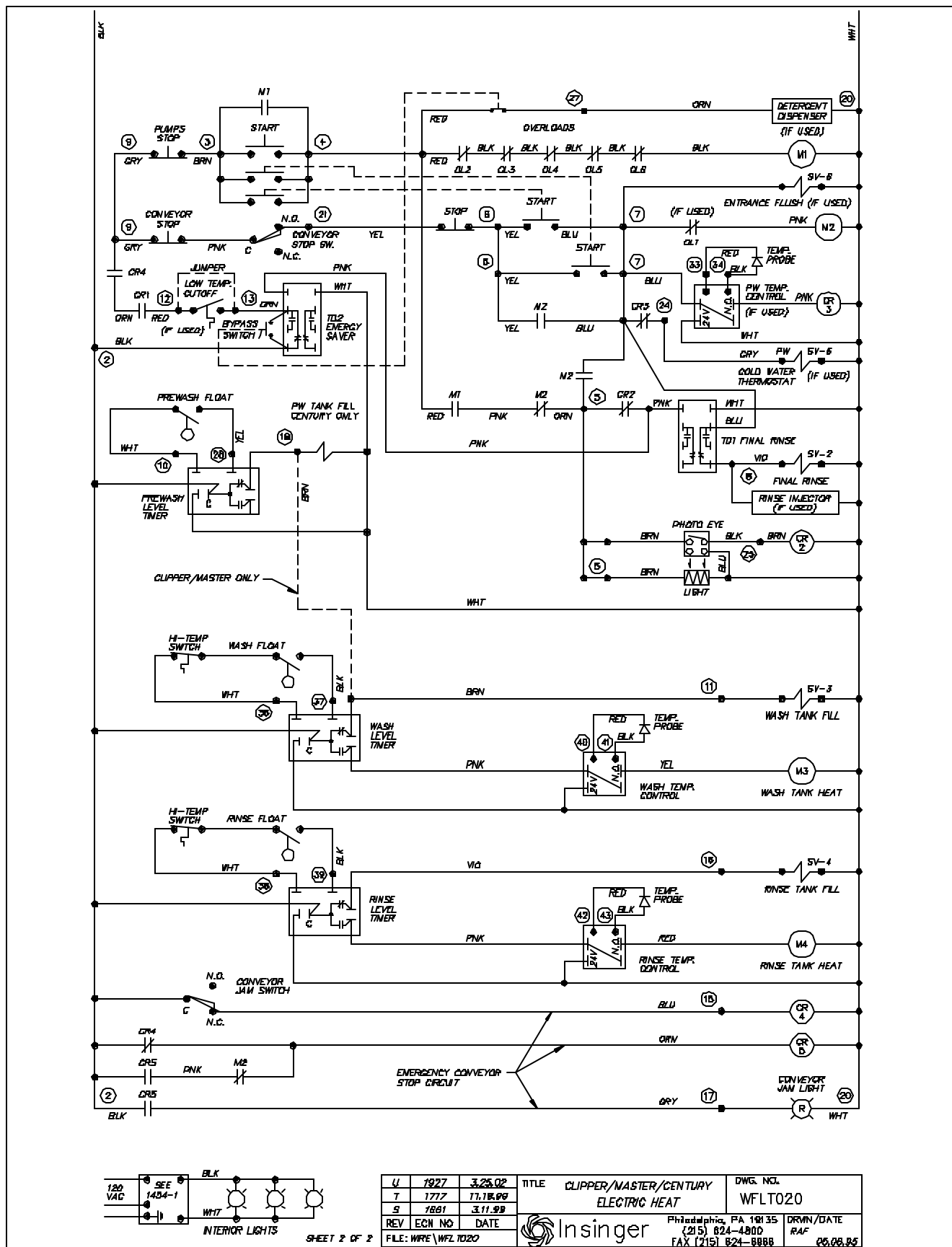
SHEET 2 OF 2

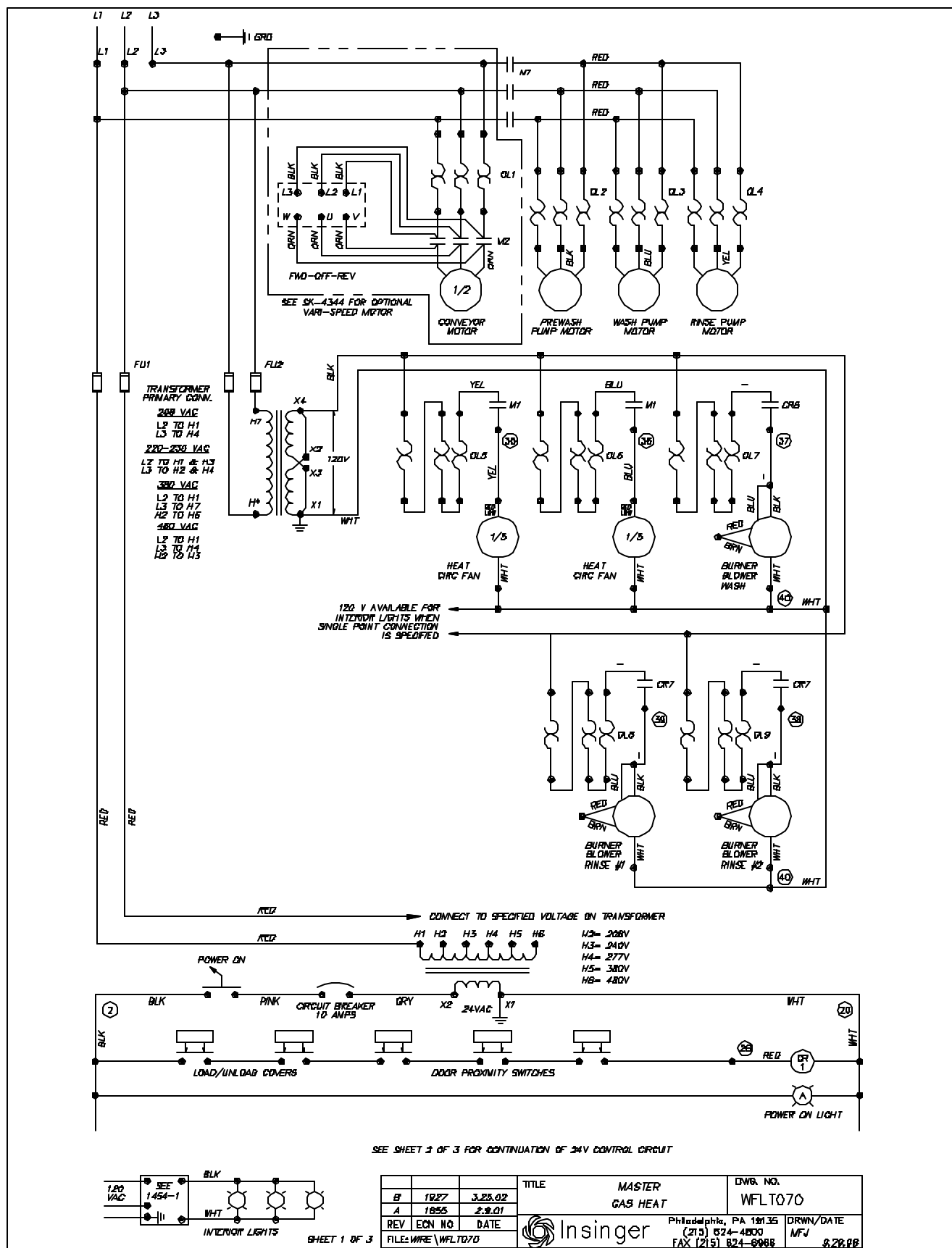
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S	1907	11.18.01
REV	EDN NO	DATE
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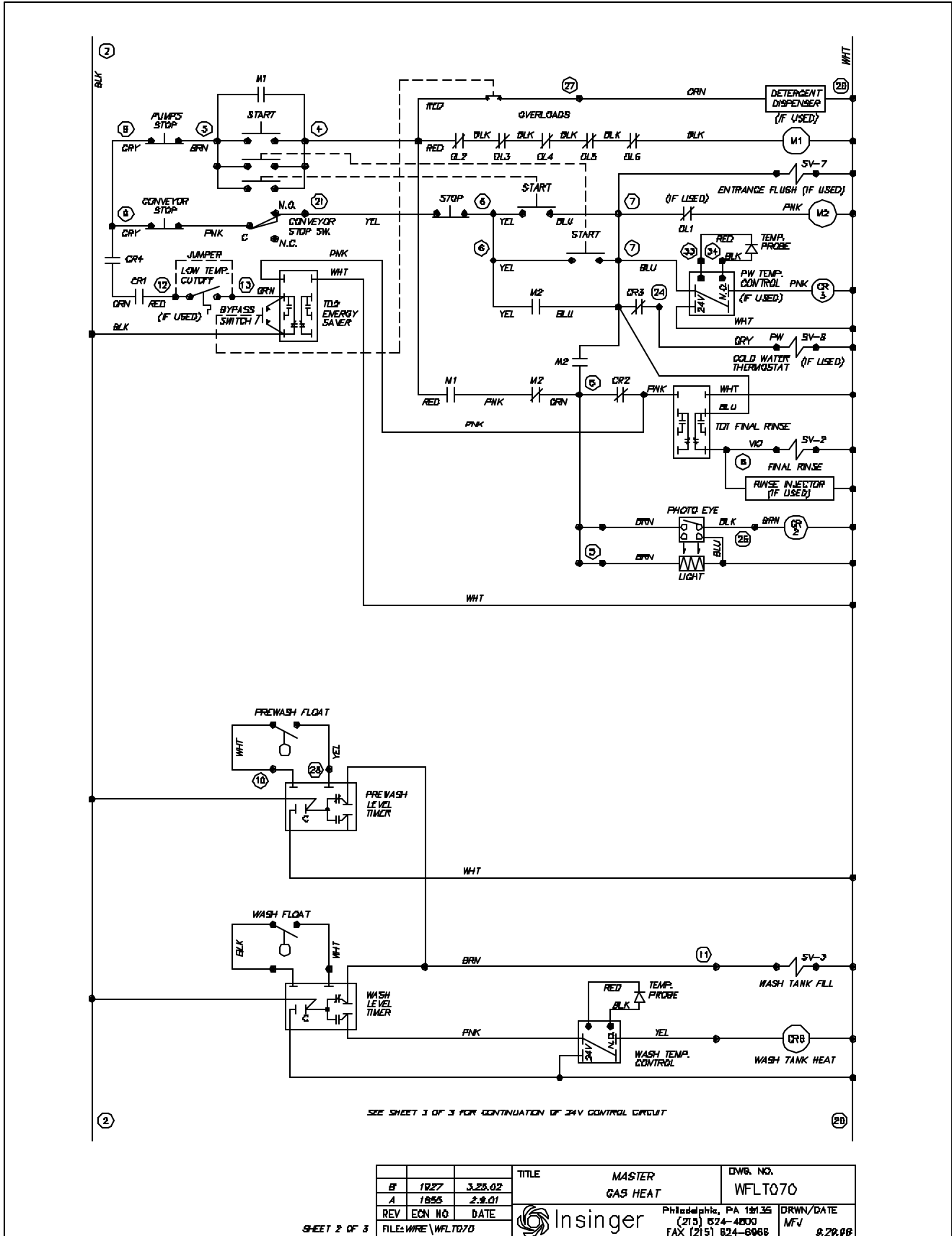
TITLE	CLIPPER/MASTER/CENTURY STEAM HEAT
DWG NO	WFLTD10
Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6000	DRWN/DATE RAF 05.01.95

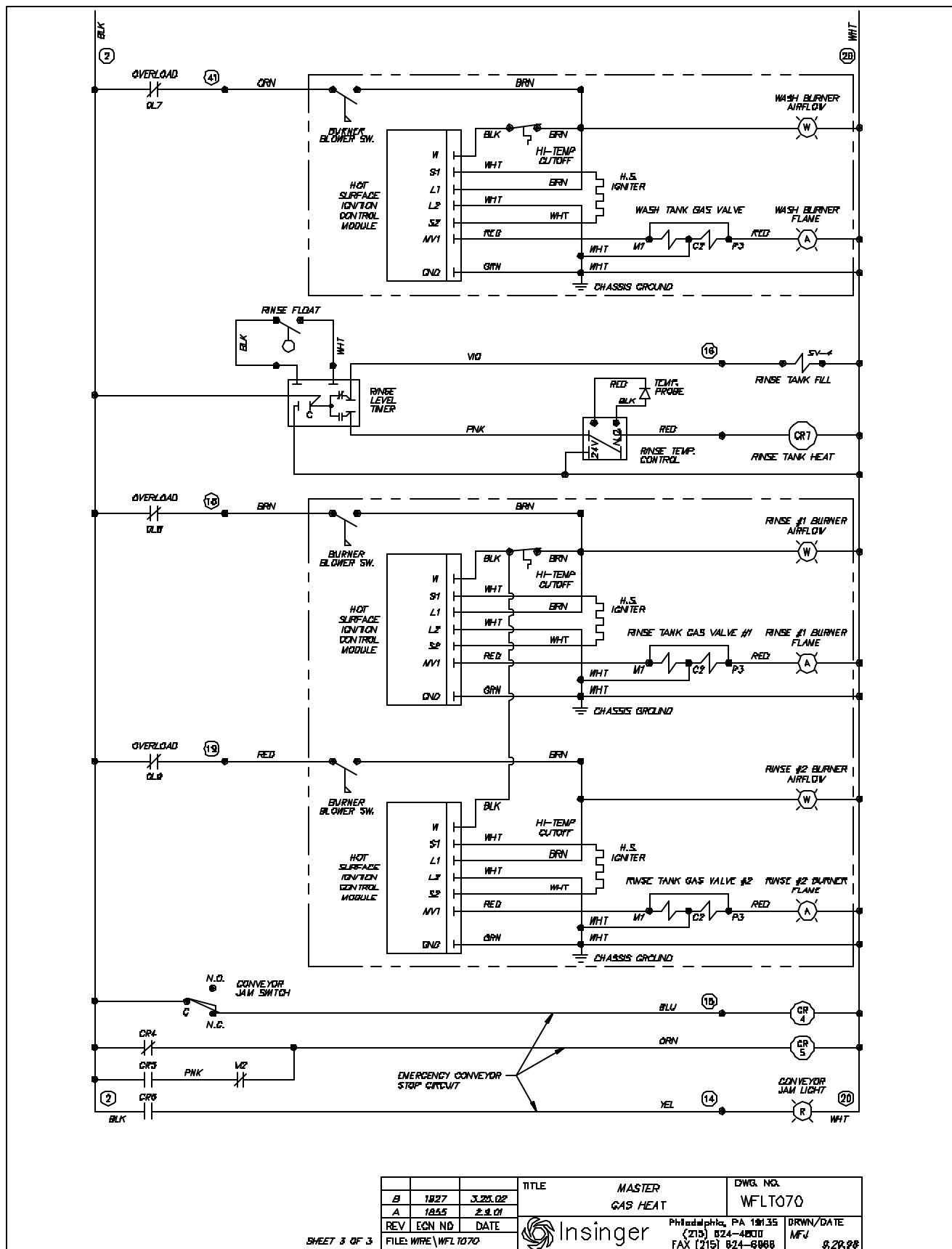














ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
70	CONTRACTOR (20 KW ELECT WASH TANK HEAT ONLY)	DE1-109	1	18	CONTACTOR (PUMPS) CENTURY	SP4	1	38	PILOT LIGHT ASSY - RED	DEB-81	1				
	30 A RES	DE1-110			CLIP & MAST (380 - 460 V) SP17	DE1-58AE		40	OVERLOAD BASE	DE2-80	1				
	50 A RES	DE1-111			CLIP & MAST (208 - 230 V) SP27	DE1-58AE		41	PUSHBUTTON ASSY, START	DE2-84	1				
	65 A RES	DE1-111			RELAY BASE	DE2-37	AR	42	PUSHBUTTON ASSY, STOP	DE2-85	1				
71	CONTRACTOR (30 KW ELECT RINSE TANK HEAT ONLY)	DE1-110	1	19	RELAY	DE2-38	AR	43	CONTROL BOX, NEMA 12	1442-32	1				
	50 A RES	DE1-111		20	RELAY	DE2-38	AR	44	CONTROL BOX COVER, NEMA 12	1442-32	1				
	65 A RES	DE1-111		21	RELAY HOLD DOWN SPRING	DE3-43	AR	45	OASMET, NEMA 12 BOX	8007-001	1				
	50 A RES	DE1-111		22	DN RAIL (35 mm)	DE3-42	1	46	NUT, NEMA 12 BOX	03120-EF-5	4				
	65 A RES	DE1-111		23	DN RAIL (13 mm)	DE3-42	1	47	DECAL	SK-3728	1				
	SP-47	DE1-98		24	TERMINAL SECTION	DE3-30	AR	48	DATA DECAL	SK-3715	1				
	SP-57	DE1-98		25	TERMINAL END COVER PLATE	DE3-40	1	49	SWITCH (FMO - OFF - REV)	DEB-56	1				
72	CONTRACTOR (40 KW ELECT RINSE TANK HEAT ONLY)	DE1-111	1	26	TERMINAL END CLAMP	DE3-41	2	50	FUSEBLOCK	DEB-186	1				
	65 A RES	DE1-111		27	TEMPERATURE CONTROL BOARD	DEB-261	AR			DEB-212	1				
	SP-47	DE1-84		28	GROUNDING STUD	D309C-GC-4G	2			DEB-213	1				
	SP-77	DE1-86		29	LOCKWASHER, 1/4"	D313C-6S	2								
	SP-77	DE1-86		30	HEX NUT, 1/4-20	D312C-GC-2	2								
73	FUSE BLOCK, 2 POLE (XFM PRIMARY)	DEB-186	1	31	CONTACT BLOCK, NO	DEB-50	1	51	FUSEBLOCK (CENTURY ONLY)	DEB-186	1				
14	FUSE (1000 VA TRANSFORMER PRIMARY)	DEB-175	2	32	AUX CONTACT NC	DE1-61AE	AR			DEB-212	1				
	FNO-R-4	DEB-175		33	AUX CONTACT NO	DEB-108	AR								
	FNO-R-5	DEB-178		34	CIRCUIT BREAKER (10A)	DE3-3	1	52	FUSE	DEB-188	1				
	FNO-R-7.5	DEB-178		35	TERMINAL BLOCK ASSY	DEB-58	2			DEB-208	1				
	FNO-R-8	DEB-178		36	SELECTOR SWITCH ASSY	DEB-60	1			DEB-211	1				
75	TIMER (ENERGY SAVER & FINAL RINSE)	DE7-28	2	37	CONTACT BLOCK, NC	DEB-62	1	53	FUSE (CENTURY ONLY)	DEB-184	3				
76	TIMER (LIQUID LEVEL)	DE7-35	AR	38	PILOT LIGHT ASSY - YELLOW					DEB-185					
77	CONTRACTOR (CONV & DRYER BLOWER) SP4	DE1-83	AR							DEB-189					

NOT SHOWN

ELECTRIC IMMERSION HEATER (10 KW)

440-460 V, 3 PH

380 V, 3 PH

230-240 V, 3 PH

208V, 3PH

TRANSFORMER (20V) FOR HEAT FANS

1000 VA

1000 VA (208 & 380 V ONLY)

REMOTE START/STOP PUSHBUTTON STA

TEMPERATURE SENSOR

SHEET 2 OF 2

CUTTER/MASTER/CENTURY

CONTROL PANEL LAYOUT

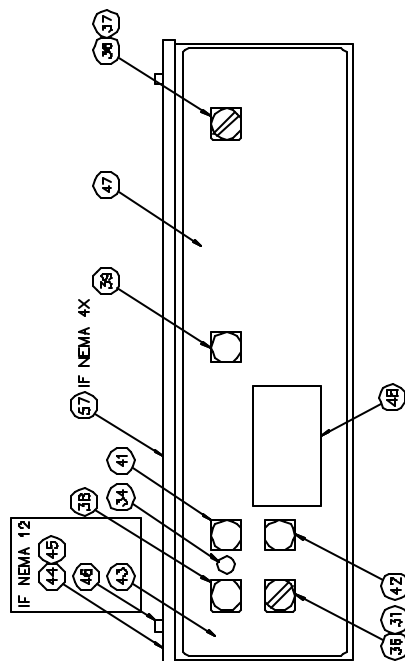
INSINGER

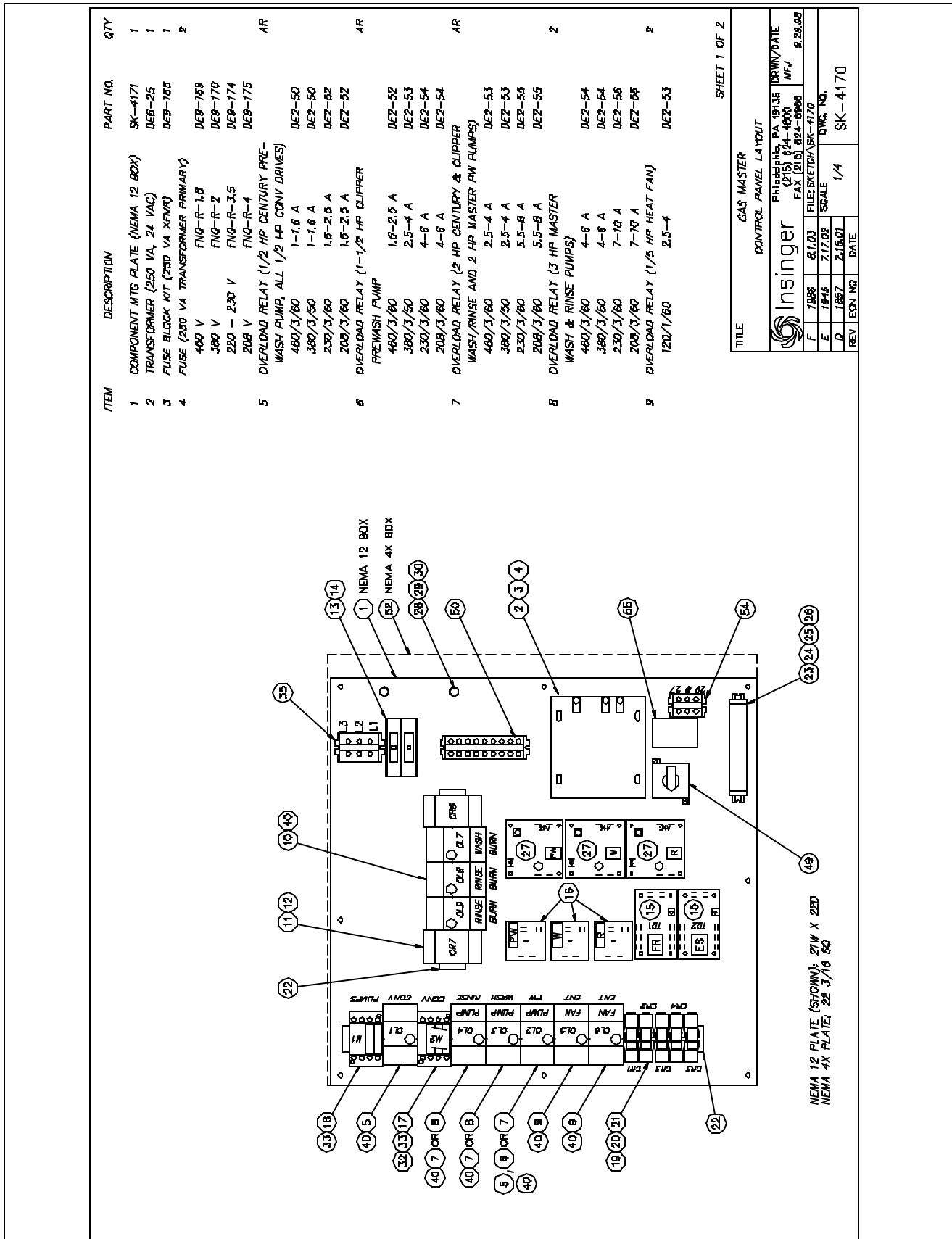
PHILADELPHIA, PA 19135
(215) 634-4800
FAX (215) 624-1885

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H	1887	2.16.01		

SCALE: 1/4" = 1"

DWG. NO. SK-3623

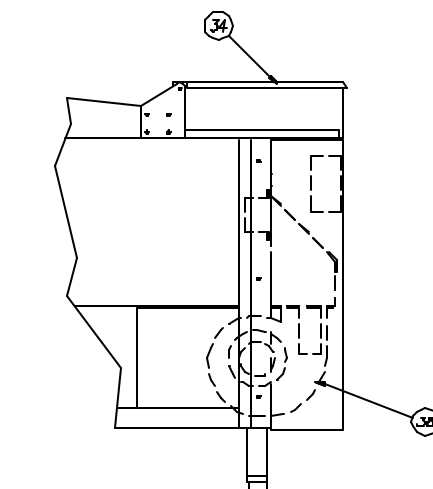
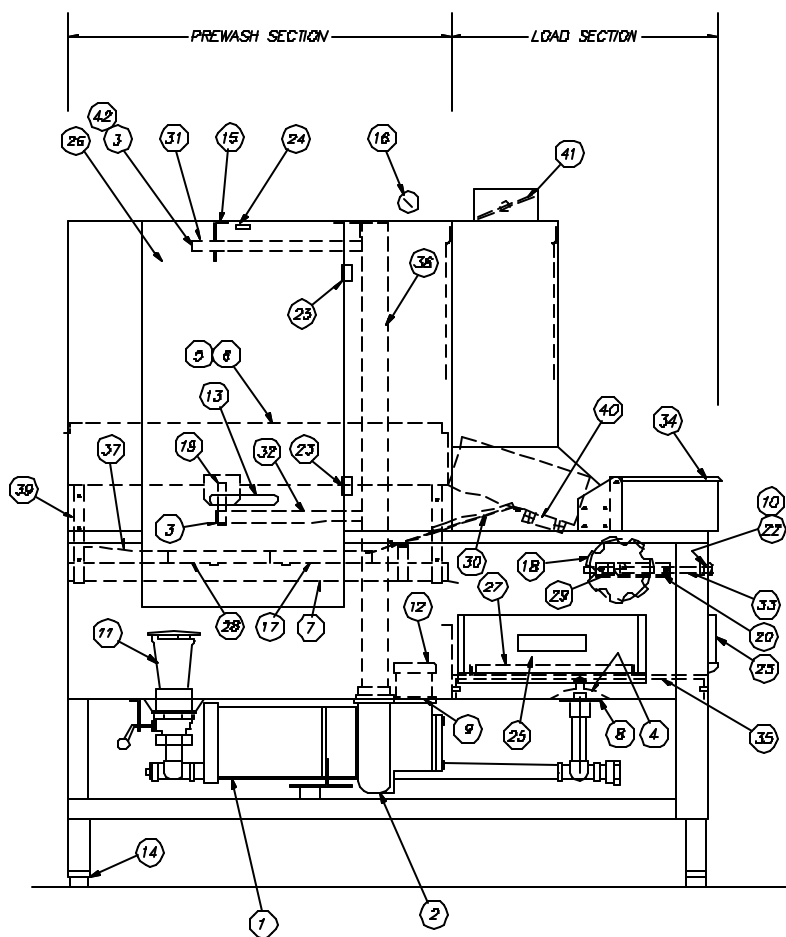




www.insingermachine.com 800-344-4802

RECOMMENDED MASTER/CLIPPER SPARE PARTS LIST

Part Number	Quantity	Description
Mechanical Parts		
D2-554-1	4	End Plug 1/2"
D2-554-2	4	End Plug, 3/4"
D2-541	2	Suction Strainer
D2099	1	Handle, Door
D2349	1	Latch, Spray Pipe
D2-522S	1	Curtain
D2286	3	Spray Nozzle, FR
D2701	3	Spray Nozzle, FR
D2390	2	Temperature Gauge
954-50	1	Drain Assembly
D2-594	1	O-ring, Manifold
RC15-226	6	Section Link, Belt
D582	6	Roller, Belt
D2160	12	Cotter Pin, Belt
SK1115	24	Split Rivet, Belt
D2930RK	1	Solenoid Valve Repair Kit, 1/2"
D2242	1	Vacuum Breaker Repair Kit, 1/2"
Electrical Components		
DE7-28	1	Timer
DE7-35	1	Timer, Level
DE5-60	1	Level Float
DE9-251	1	Temperature Control Board
DE5-37	2	Magnetic Switch
DE5-4	1	MicroSwitch
For Steam Tank Heat Add:		
1 Each Solenoid Valve Repair Kits:		
D2947RK	1	
D2946RK	3/4"	
D2475	1 1/4"	
For Electric Heat Add:		
DE13-Sfy3		Immersion Heater y = Specify Voltage



RIGHT HAND MACHINE SHOWN (STEAM)

SHEET 1 OF 2

FILE: SKETCH\SK-2605R

△ EGN #2007 3.22.04

CLIPPER MASTER 2', 3', 4' LOAD - 3' PW	
 INSINGER MACHINE COMPANY	
6245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-624-8988 PA 19135-2996	
SCALE: 1"=12'	DWG. NO.
DRAWN: PG 3.31.99	SK-2605R
APPROVED: MFJ 3.31.99	

ITEM	PART NO.						PART NAME	REQ'D	
	STANDARD WIDTH			31" WIDE					
	STD HEIGHT	3" EX HIGH	6" EX HIGH	STD HEIGHT	3" EX HIGH	6" EX HIGH			
1	-	-	-	-	-	-	MOTOR (AS SPECIFIED)	1	
2	D-2471	D-2471	D-2471	D-2471	D-2471	D-2471	PUMP	1	
3	D2-554-2	D2-554-2	D2-554-2	D2-554-2	D2-554-2	D2-554-2	END PLUG	6	STD WIDTH
								7	31" WIDE
4	D-108	D-108	D-108	D-108	D-108	D-108	DRAIN STRAINER	1	
5	1113-46	1113-46	1113-46	1113-46	1113-46	1113-46	TRACK-UPPER FRONT	1	
6	1113-46	1113-46	1113-46	1113-46	1113-46	1113-46	TRACK-UPPER REAR	1	
7	1113-30	1113-30	1113-30	1113-30	1113-30	1113-30	TRACK-LOWER	2	2" LOAD
	1103-83	1103-83	1103-83	1103-83	1103-83	1103-83	TRACK-LOWER	2	3" LOAD
	1113-29	1113-29	1113-29	1113-29	1113-29	1113-29	TRACK-LOWER	2	4" LOAD
8	D-514	D-514	D-514	D-514	D-514	D-514	GASKET	1	
9	D-530	D-530	D-530	D-530	D-530	D-530	GASKET	1	
10	D-685	D-685	D-685	D-685	D-685	D-685	"B" RING-ADJ. SCREW	2	
11	954-1	954-1	954-1	954-1	954-1	954-1	DRAIN ASS'Y (SEE PARTS LIST)	1	
12	D2-941	D2-941	D2-941	D2-941	D2-941	D2-941	SCTION STRAINER	1	
13	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	DOOR HANDLE & ROD	1	
14	D-2248	D-2248	D-2248	D-2248	D-2248	D-2248	ADJUSTABLE FOOT	4	
15	D-2348	D-2348	D-2348	D-2348	D-2348	D-2348	SPRAY PIPE LATCH	1	
16	D-2390	D-2390	D-2390	D-2390	D-2390	D-2390	THERMOMETER	1	
17	1105-83	1105-83	1105-83	1426-30	1426-30	1426-30	SCRAP SCREEN	4	
18	D2-138	D2-138	D2-138	D2-138	D2-138	D2-138	BELT SPROCKET	2	
19	1100-73	1100-73	1100-73	1428-105	1428-105	1428-105	GRABBLE-SPRAY PIPES	1	
20	1100-147	1100-147	1100-147	1100-147	1100-147	1100-147	CHANNEL FOR SHAFT	2	
21	-	-	-	-	-	-	-	1	
22	D2-838	D2-838	D2-838	D2-838	D2-838	D2-838	COLLAR- ADJ. SCREW	2	
23	D-2715	D-2715	D-2715	D-2715	D-2715	D-2715	DOOR LATCH	1	
24	DE3-37	DE3-37	DE3-37	DE3-37	DE3-37	DE3-37	MAGNET SWITCH	1	
25	1100-94	1100-94	1100-94	1100-94	1100-94	1100-94	DOOR-LOAD SECT.	2	STEAM MACH.
								1	ELECT. MACH.
26	1100-28	1442-33	1442-33	1100-28	1442-33	1442-33	DOOR-R.W.	1	
27	1100-37	1100-37	1100-37	1426-28	1426-28	1426-28	SCRAP SCREEN	2	2" LOAD
								3	3" LOAD
								4	4" LOAD
28	1100-81	1100-81	1100-81	1426-28	1426-28	1426-28	SCRAP SCREEN	4	
29	1100-148	1100-148	1100-148	1426-80	1426-80	1426-80	CONVEYER SHAFT	1	
30	1100-196	1100-196	1100-196	1403-198	1403-198	1403-198	BAFFLE-LOAD PW	1	R.H. MACH
	1105-102	1105-102	1105-102	1426-91	1426-91	1426-91			L.H. MACH
31	1100-357A	1100-357A	1100-357A	1100-357B	1100-357B	1100-357B	MANFOLD ASS'Y-UPPER	1	
32	1100-71	1100-71	1100-71	1426-48	1426-48	1426-48	MANFOLD ASS'Y-LOWER	1	
33	1100-148	1100-148	1100-148	1100-148	1100-148	1100-148	ADJUSTABLE SCREW	2	
34	1100-134	1100-134	1100-134	1426-85	1426-85	1426-85	END REST	1	STEAM MACH.
									ELECT. MACH.
35	1100-38	1100-38	1100-38	1100-38	1100-38	1100-38	SCRAP SCREEN SUPPORT	1	
36	1113-43	1113-43	1113-43	1113-43	1113-43	1113-43	DISCHARGE TUBE ASS'Y	1	
37	1100-108	1100-108	1100-108	1426-28	1426-28	1426-28	TRAY SPACER	1	R.H. MACH
									L.H. MACH
38	1105-95	1105-95	1105-95	1426-82	1426-82	1426-82			
39	SC508	SC508	SC508	SC508	SC508	SC508	BLOWER, 120 VAC	2	
39	1100-90	1100-90	1100-90	1426-22	1426-22	1426-22	TRACK SUPPORT	2	
40	1100-65	1100-65	1100-65	1426-21	1426-21	1426-21	TRACK SUPPORT	1	
41	D2-728	D2-728	D2-728	D2-728	D2-728	D2-728	DAMPER BLADE	1	
42	D3-398	D3-398	D3-398	D3-398	D3-398	D3-398	END PLUG RETAINER	6	

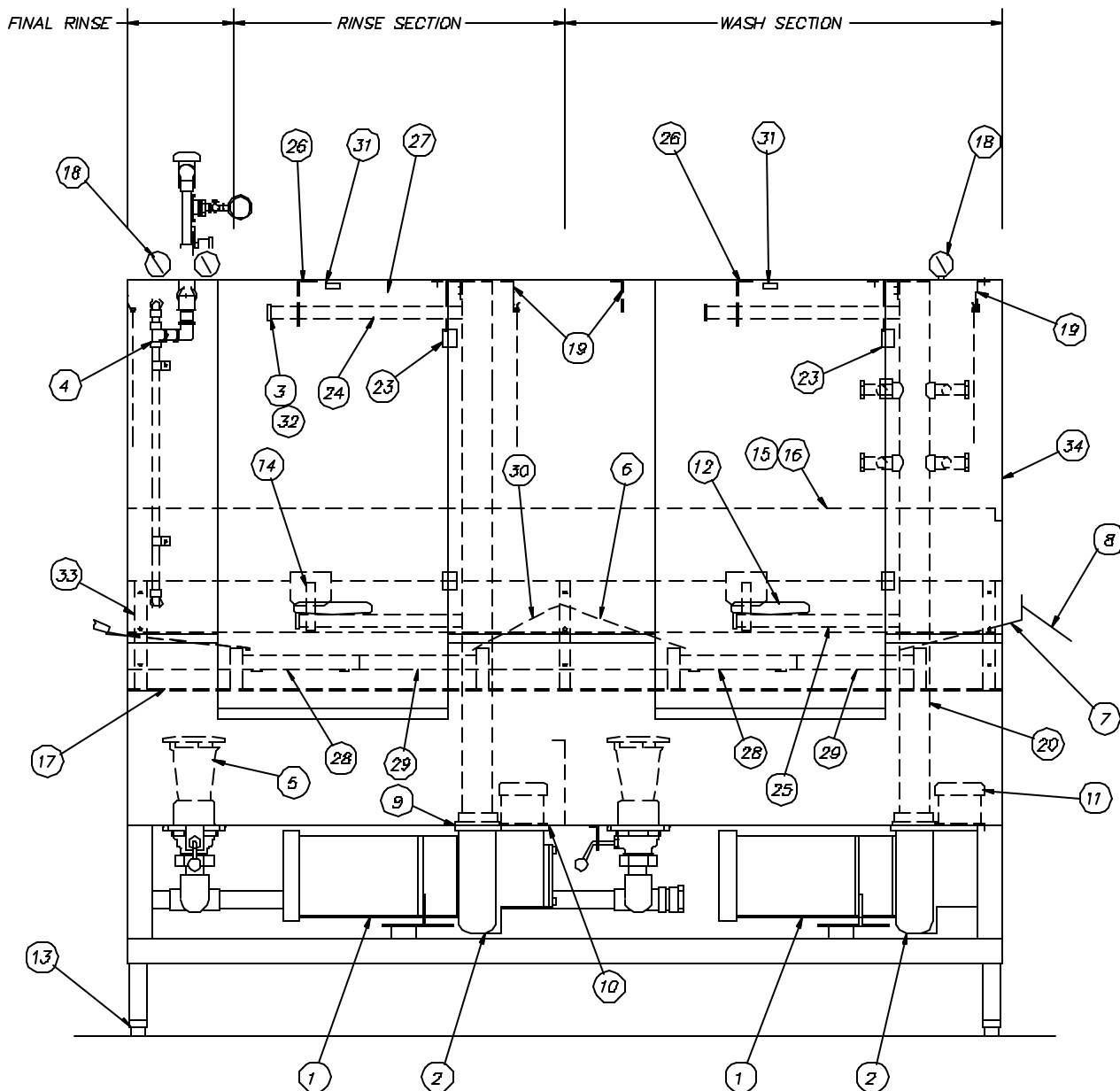
* ITEM 17 QUANTITY 1 R.H. MACHINE - 2 L.H. MACHINE
 ITEM 26 QUANTITY 1 R.H. MACHINE - 2 L.H. MACHINE

SHEET 2 OF 2

CLIPPER\MASTER 2',3',4' LOAD-3' PW	
 INSINGER MACHINE COMPANY	8245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-624-6866 PA 19135-2986
SCALE: 1"=12'	DWG. NO.
DRAWN: PC 3.31.88	SK-2605R
APPROVED: MFJ 3.31.89	

△ EEN #2007 3.22.04

5: SKETCH\SK-2605R



RIGHT HAND MACHINE SHOWN

SHEET 1 OF 2

△ EGN #2007 3.22.04

FILE: SKETCH\SK-2610R

CLIPPER WASH & RINSE SECTION		
 INSINGER MACHINE COMPANY		
6245 State Rd. Tel. 215-624-4800 Philadelphia PA 19135-2996 FAX: 215-624-6966		
SCALE:	1"=12	DWG. NO. SK-2610R
DRAWN:	PG 4.16.99	
APPROVED:	MFJ 4.16.99	

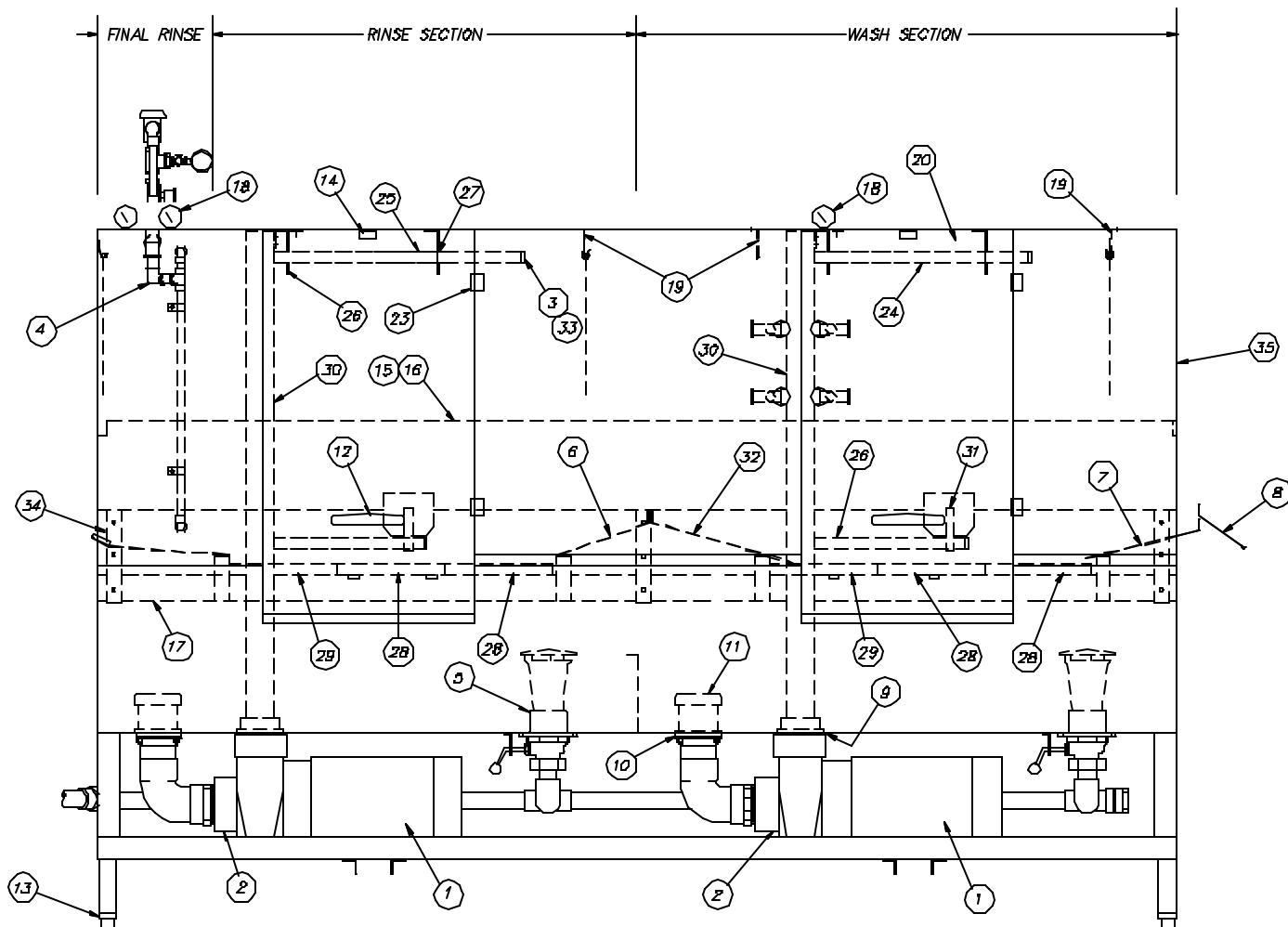
ITEM	PART NO.						PART NAME	QTY	
	STANDARD WIDTH			31" WIDE					
	STD HEIGHT	3" EX HIGH	6" EX HIGH	STD HEIGHT	3" EX HIGH	6" EX HIGH			
1	-	-	-	-	-	-	MOTOR (AS SPECIFIED)	2	
2	D-2471	D-2471	D-2471	D-2471	D-2471	D-2471	PUMP	2	
3	D2-664-2	D2-664-2	D2-664-2	D2-664-2	D2-664-2	D2-664-2	END PLUG	12	
4	1100-330	1100-330	1100-330	1486-20	1485-20	1486-20	FINAL RINSE ASS'Y (SEE PARTS LIST)	1	
5	054-1	054-1	054-1	054-1	054-1	054-1	DRAIN ASS'Y (SEE PARTS LIST)	2	
6	1100-183	1100-183	1100-183	1483-16R	1483-16R	1483-16R	BAFFLE-CENTER	1	R.H. MACH.
	1113-33	1113-33	1113-33	1480-22	1480-22	1480-22			L.H. MACH.
7	1100-194	1100-194	1100-194	1485-18R	1485-18R	1485-18R	BAFFLE-WASH	1	R.H. MACH.
	1113-34	1113-34	1113-34	1485-24	1485-24	1485-24			L.H. MACH.
8	1100-185	1100-185	1100-185	1426-34	1426-34	1426-34	BAFFLE-AT SPLIT	1	R.H. MACH.
	1103-106	1103-106	1103-106	1426-80	1426-80	1426-80			L.H. MACH.
9	D-014	D-014	D-014	D-014	D-014	D-014	GASKET	2	
10	D-630	D-630	D-630	D-630	D-630	D-630	GASKET	2	
11	D2-541	D2-541	D2-541	D2-541	D2-541	D2-541	SUCTION STRAINER	2	
12	RC19-20 RC19-21	RC19-20 RC19-21	RC19-20 RC19-21	RC19-20 RC19-21	RC19-20 RC19-21	RC19-20 RC19-21	DOOR HANDLE & ROD	2	
13	D-2248	D-2248	D-2248	D-2248	D-2248	D-2248	ADJUSTABLE FOOT	4	
14	1100-73	1100-73	1100-73	1426-103	1426-103	1426-103	CRADLE-SPRAY PIPES	2	
15	1113-48	1113-48	1113-48	1113-48	1113-48	1113-48	TRACK-UPPER FRONT	1	
16	1113-49	1113-49	1113-49	1113-49	1113-49	1113-49	TRACK-UPPER REAR	1	
17	1100-185	1100-185	1100-185	1100-185	1100-185	1100-185	TRACK-LOWER	2	R.H. MACH.
	1113-28	1113-28	1113-28	1113-28	1113-28	1113-28			L.H. MACH.
18	D-2380	D-2380	D-2380	D-2380	D-2380	D-2380	THERMOMETER	3	
19	1100-18R	1100-18R	1100-18R	1486-13R	1485-13R	1486-13R	BAFFLE-TOP	3	
20	1113-41A	1113-41B	1113-41C	1113-41A	1113-41B	1113-41C	DISCHARGE TUBE ASSY	2	
21	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	
23	D-2715	D-2715	D-2715	D-2715	D-2715	D-2715	DOOR LATCH	4	
24	1100-359B	1100-359B	1100-359B	1100-359D	1100-359D	1100-359D	MANIFOLD ASSY UPPER	2	
25	1100-71	1100-71	1100-71	1426-49	1426-49	1426-49	MANIFOLD ASSY-LOWER	2	
26	D-2349	D-2349	D-2349	D-2349	D-2349	D-2349	SPRAY PIPE LATCH	2	
27	1100-28	1442-35	1442-35	1100-28	1442-35	1442-35	DOOR	2	
28	1100-61	1100-61	1100-61	1426-28	1426-28	1426-28	SCRAP SCREEN	2	
29	1104-73	1104-73	1104-73	1426-31	1426-31	1426-31	SCRAP SCREEN W/DR DISCHARGE	2	
30	1100-182	1100-182	1100-182	1483-17R	1483-17R	1483-17R	BAFFLE-CENTER	1	R.H. MACH.
	1100-183	1100-183	1100-183	1483-162	1483-162	1483-162			L.H. MACH.
31	DE5-37	DE5-37	DE5-37	DE5-37	DE5-37	DE5-37	MAGNET SWITCH	2	
32	D3-558-2	D3-558-2	D3-558-2	D3-558-2	D3-558-2	D3-558-2	END PLUG RETAINER	12	
33	1100-50	1100-50	1100-50	1426-31	1426-31	1426-31	TRACK SUPPORT	3	
34	1100-15	-	-	1426-41	-	1442-12	GASKET	2	

SHEET 2 OF 2


 EON 1007 3.22.04

TCH/SK-2610R

CLIPPER WASH & RINSE SECTION	
 INSINGER MACHINE COMPANY	
5245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-824-6868 PA 19135-2996	
SCALE: 1"=12" DRAWN: PG 4.16.99 APPROVED: MFJ 4.16.99	DWG. NO. SK-2610R



RIGHT HAND MACHINE SHOWN

SHEET 1 OF 2

△ EQN #2007 3.22.04

FILE: SKETCH\SK-2846

MASTER WASH & RINSE SECTION	
 INSINGER MACHINE COMPANY	
8245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-624-6966 PA 19135-2996	
SCALE: 1"=12	DWG. NO.
DRAWN: PG 4.9.99	SK-2846
APPROVED: MFJ 4.9.99	

ITEM	PART NO.						PART NAME	REQ'D	
	STANDARD WIDTH			31" WIDE					
	STD HEIGHT	3" EX HIGH	6" EX HIGH	STD HEIGHT	3" EX HIGH	6" EX HIGH			
1	-	-	-	-	-	-	MOTOR (AS SPECIFIED)	2	
2	D2-2603	D2-2603	D2-2603	D2-2603	D2-2603	D2-2603	PUMP	2	
3	D2-554-2	D2-554-2	D2-554-2	D2-554-2	D2-554-2	D2-554-2	END PLUG	14	
4	1100-318	1100-318	1100-318	1100-318	1100-318	1100-318	FINAL RINSE ASS'Y (SEE PARTS LIST)	1	
5	954-1	954-1	954-1	954-1	954-1	954-1	DRAIN ASS'Y (SEE PARTS LIST)	2	
6	1104-71	1104-71	1104-71	1426-37	1426-37	1426-37	BAFFLE-CENTER	1	R.H. MACH
	1105-138	1105-138	1105-138	1426-87	1426-87	1426-87			L.H. MACH
7	1104-72	1104-72	1104-72	1426-38	1426-38	1426-38	BAFFLE-WASH	1	R.H. MACH
	1105-140	1105-140	1105-140	1426-88	1426-88	1426-88			L.H. MACH
8	1100-195	1100-195	1100-195	1426-34	1426-34	1426-34	BAFFLE-AT SPLIT	1	R.H. MACH
	1105-106	1105-106	1105-106	1426-80	1426-80	1426-80			L.H. MACH
9	1104-67	1104-67	1104-67	1104-67	1104-67	1104-67	GASKET	2	
10	D-530	D-530	D-530	D-530	D-530	D-530	GASKET	2	
11	D2-541	D2-541	D2-541	D2-541	D2-541	D2-541	SUCTION STRAINER	2	
12	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	RC15-20 RC15-21	DOOR HANDLE & ROD	2	
13	D-2248	D-2248	D-2248	D-2248	D-2248	D-2248	ADJUSTABLE FOOT	4	
14	DE5-37	DE5-37	DE5-37	DE5-37	DE5-37	DE5-37	MAGNET/SWITCH	2	
15	1104-50	1104-50	1104-50	1104-50	1104-50	1104-50	TRACK-UPPER FRONT	1	
16	1104-51	1104-51	1104-51	1104-51	1104-51	1104-51	TRACK-UPPER REAR	1	
17	1104-39	1104-39	1104-39	1104-39	1104-39	1104-39	TRACK-LOWER	2	R.H. MACH
	1105-135	1105-135	1105-135	1105-135	1105-135	1105-135			L.H. MACH
18	D-2390	D-2390	D-2390	D-2390	D-2390	D-2390	THERMOMETER	3	
19	1104-10R	1104-10R	1104-10R	1426-33	1426-33	1426-33	BAFFLE-TOP	3	
20	1100-28	1442-35	1442-35	1100-28	1442-35	1442-35	DOOR	2	
21	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	
23	D-2715	D-2715	D-2715	D-2715	D-2715	D-2715	DOOR LATCH	4	
24	1104-95A	1104-95A	1104-95A	1104-95C	1104-95C	1104-95C	MANIFOLD ASS'Y-UPPER-WASH	1	
25	1104-96A	1104-96A	1104-96A	1104-96C	1104-96C	1104-96C	MANIFOLD ASS'Y-UPPER-RINSE	1	
26	1104-60	1104-60	1104-60	1426-47	1426-47	1426-47	MANIFOLD ASS'Y-LOWER	2	
27	D-2348	D-2348	D-2348	D-2348	D-2348	D-2348	SPRAY PIPE LATCH	2	
28	1100-61	1100-61	1100-61	1426-28	1426-28	1426-28	SCRAP SCREEN	4	
29	1104-73	1104-73	1104-73	1426-31	1426-31	1426-31	SCRAP SCREEN W&R DISCHARGE	2	
30	1104-64A	1104-64B	1104-64C	1104-64A	1104-64B	1104-64C	DISCHARGE TUBE ASS'Y	2	
31	1100-73	1100-73	1100-73	1426-105	1426-105	1426-105	CRADLE-SPRAY PIPES	2	
32	1104-45	1104-45	1104-45	1426-40	1426-40	1426-40	BAFFLE-CENTER	1	R.H. MACH
	1105-139	1105-139	1105-139	1426-88	1426-88	1426-88			L.H. MACH
33	D3-558-2	D3-558-2	D3-558-2	D3-558-2	D3-558-2	D3-558-2	END PLUG RETAINER	14	
34	1100-50	1100-50	1100-50	1426-21	1426-21	1426-21	TRACK SUPPORT	3	
35	1100-15	-	-	1426-41	-	1442-12	GASKET	2	

SHEET 2 OF 2

ECN #2007 3.22.04

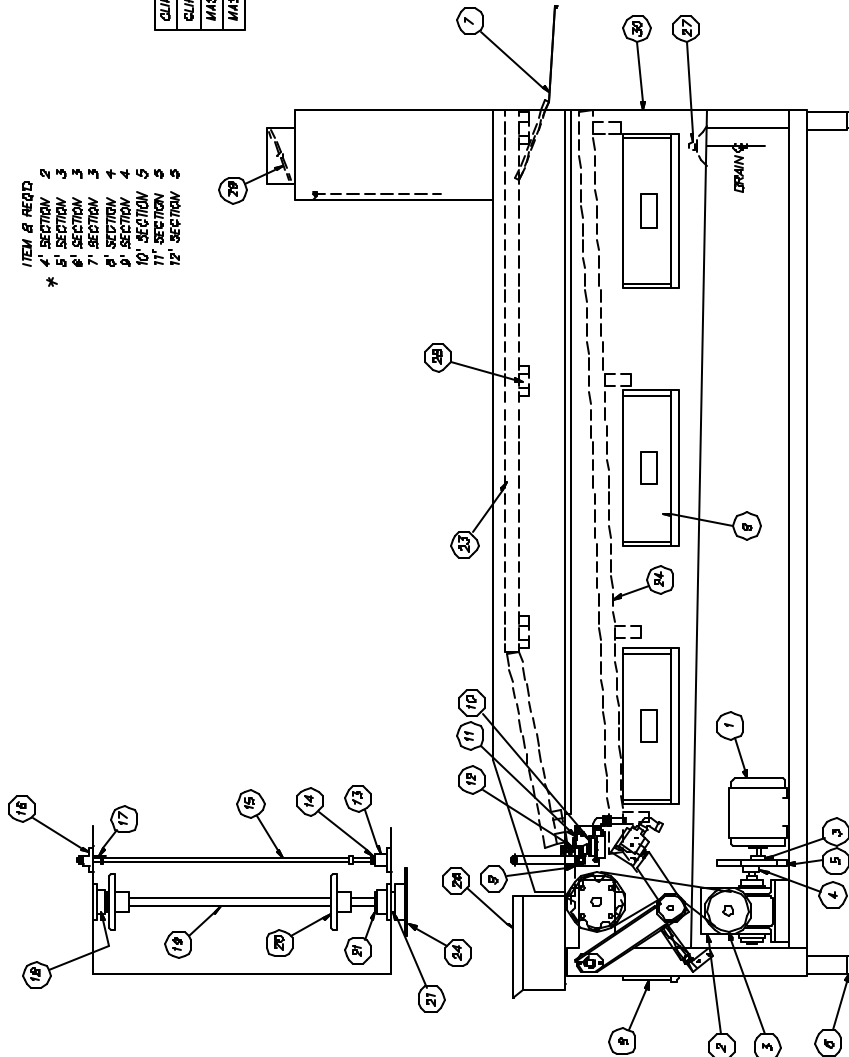
SKETCH/5K-2846

MASTER WASH & RINSE SECTION	
 INSINGER MACHINE COMPANY	
6245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-624-6966 PA 19135-2996	
SCALE: 1"=12"	DWG. NO.
DRAWN: PG 4.9.99	SK-2846
APPROVED: MFJ 4.9.99	

ITEM & REQ'D
 * 1 SECTION 2
 5 SECTION 3
 6 SECTION 3
 7 SECTION 3
 8 SECTION 4
 9 SECTION 4
 10 SECTION 5
 11 SECTION 5
 12 SECTION 5

ITEM	PART NO.		PART NAME	REQ'D
	STD WIDTH	31" WIDE		
1	-	-	MOTOR (AS SPECIFIED)	7
2	D2344A	D2344A	REDUCER	1
3	818-18	818-18	PULLEY-MOTOR	1
4	D-3537	D-3537	PULLEY-REDUCER	1
5	D2-082	D2-082	DRIVE BELT	1
6	D-3948	D-3948	ADJUSTABLE FOOT	4
7	1100-107	1465-15R	BAFFLE	1
8	1100-84	1100-84	CLEANOUT DOOR	*
9	1100-110	1100-730	MIS. BRACKET-MICROSWITCH	7
10	D-2206A	D-2206A	MICROSWITCH	1
11	1100-138	1100-138	SPRING-MICROSWITCH	1
12	1100-131	1100-131	ACTUATOR-MICROSWITCH	1
13	D2-141	D2-141	BEARING-STOP BAR-FRONT	1
14	D2-839	D2-839	COLLAR-STOP BAR	2
15	1100-126	1428-84	STOP BAR	1
16	1100-124	1100-724	BEARING-STOP BAR-REAR	7
17	1100-126	1100-726	BRACKET-STOP BAR ADJ.	1
18	1100-118	1100-718	BEARING BKT.-DRIVE SHAFT	2
19	1100-118	1428-82	DRIVE SHAFT-CONVEYOR BELT	1
20	D2-158	D2-158	SPROCKET-CONVEYOR BELT	2
21	1100-122	1100-122	SPACER-DRIVE SPROCKET	2
22	D-2333	D-2333	CHAIN SPROCKET-MASTER	1
23	D-2388A	D-2388A	CHAIN SPROCKET-MASTER	1
24	1113-47	1113-47	UPPER TRACK-FRONT & REAR	1 EA
25	1100-105	1100-105	LOWER TRACK-FRONT & REAR	1 EA
26	-	-	CHAIN (NOT SHOWN)	1
27	1100-114	1428-83	END REST	7
28	D106	D106	DRAIN COVER	7
29	1100-55	1428-21	TRACK SUPPORT	*
30	D2-728	D2-728	DAMPEN BLADE	1
31	1100-115	1428-41	SKIS	7

CLIPPER R.H.
 CLIPPER L.H.
 MASTER R.H.
 MASTER L.H.



RIGHT HAND MACHINE SHOWN

FILE: SKETCH\SK-2607

△ ECH #2007 3.22.04

CLIPPER\MASTER

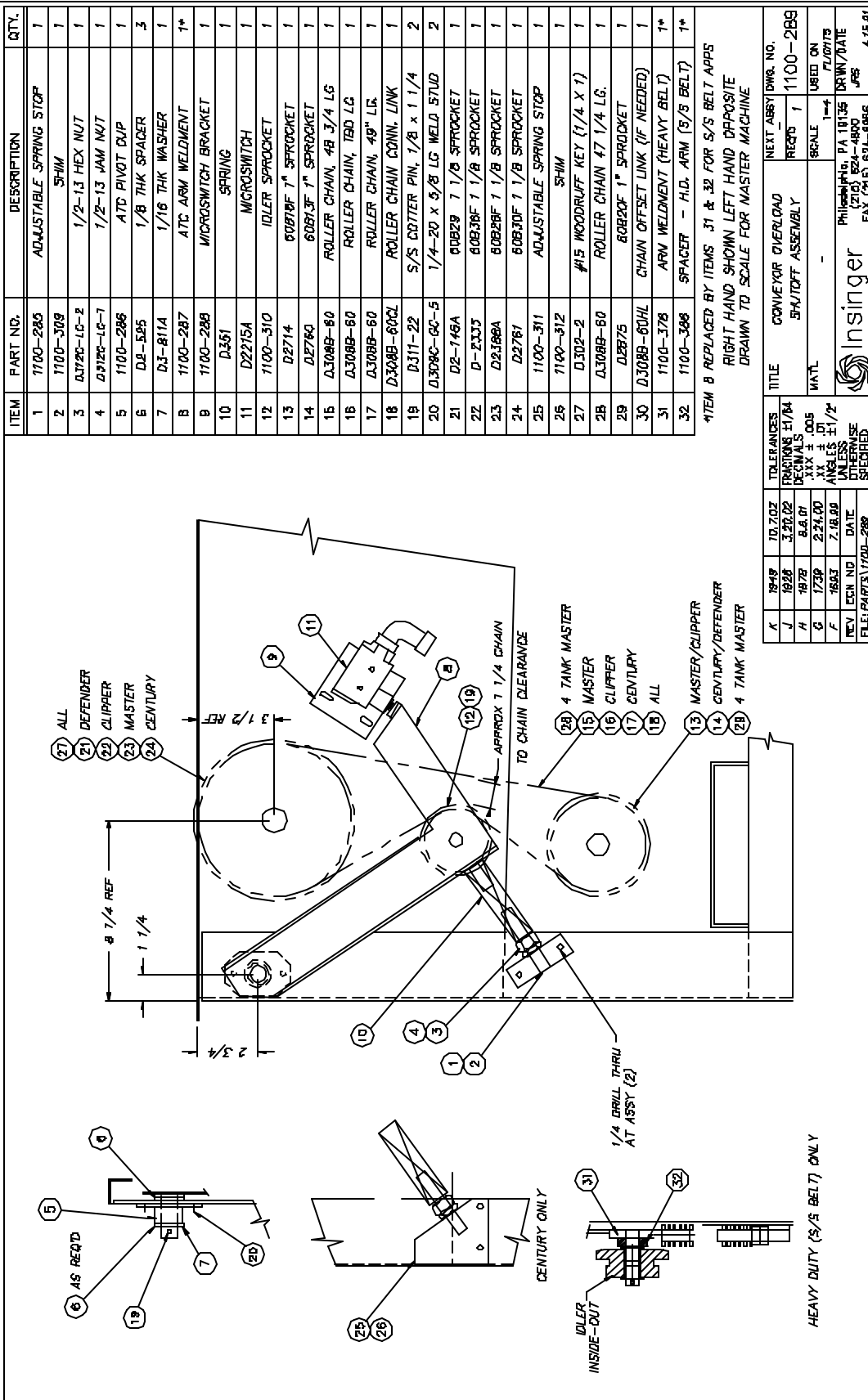
4'5",6'7',8',9',10',11',12' UNLOAD SECTION



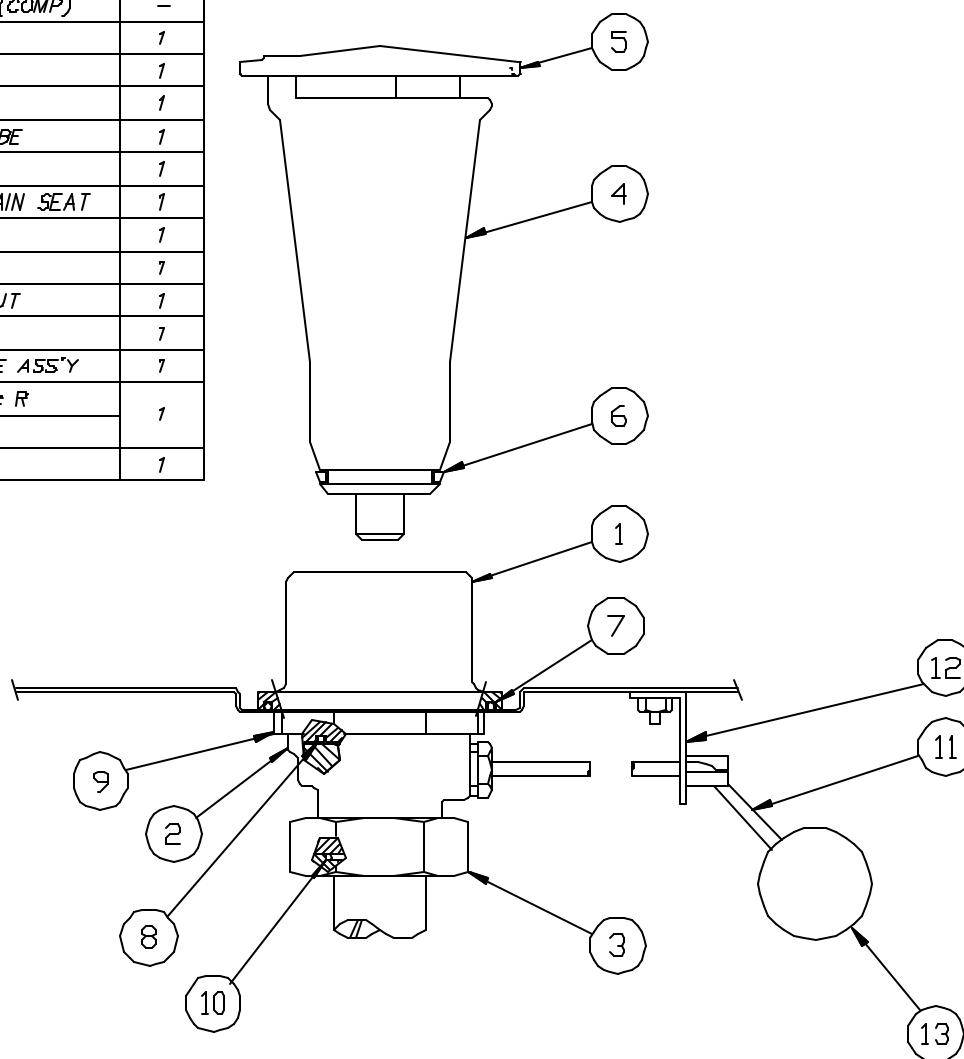
INSINGER
 MACHINE COMPANY

6245 State Rd. Tel: 215-824-4800
 Philadelphia PA 19135-2998
 FAX: 215-824-5965

SCALE: 1"=12'	DWG. NO. SK-2607
DRAWN: PG 4.12.99	
APPROVED: MFL 4.12.99	



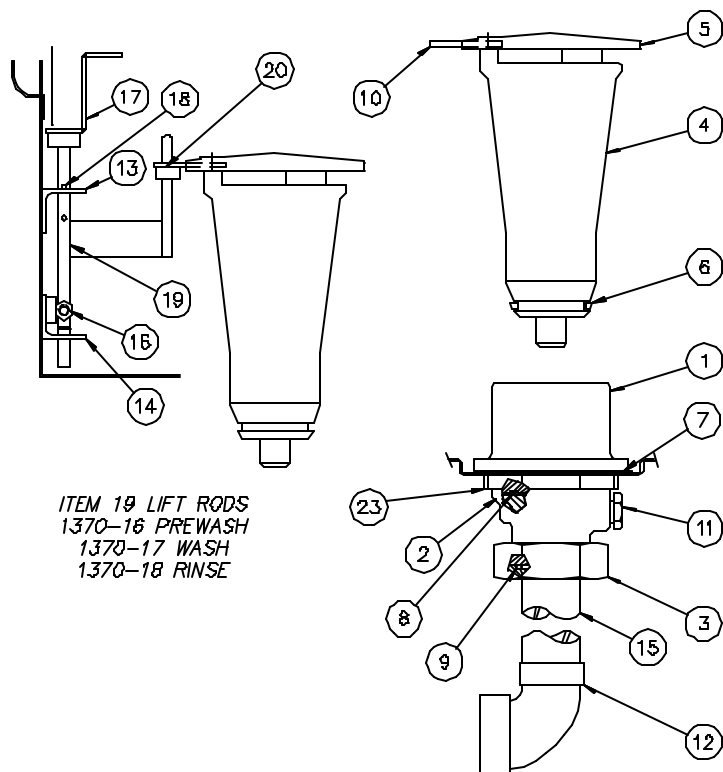
ITEM	PART NO.	NAME OF PART	REQ'D
	954-50	DRAIN ASS'Y (COMP)	-
1	954-50A	UPPER BODY	1
2	954-50B	LOWER BODY	1
3	954-50C	NUT	1
4	954-50D	OVERFLOW TUBE	1
5	D-193	SKIMMER CAP	1
6	D2-557	"V" SEAL-DRAIN SEAT	1
7	954-9	FLAT WASHER	1
8	D2-549	"D" RING	1
9	D-305	DRAIN JAM NUT	1
10	D2-550	"D" RING	1
11	1100-79	DRAIN HANDLE ASS'Y	1
12	954-8	BRACKET W & R	1
	954-8A	BRACKET P.W.	
13	D2-507	BALL	1



△ ECN #2007 3.22.04

FILE: SKETCH\SK-2613

INSINGER DRAIN ASSEMBLY		
 INSINGER MACHINE COMPANY		
6245 State Rd. Tel. 215-624-4800 Philadelphia FAX: 215-624-6966 PA 19135-2996		
SCALE:	1=1	DWG. NO. SK-2613
DRAWN:	FG 4.19.99	
APPROVED:	MFJ 4.19.9	

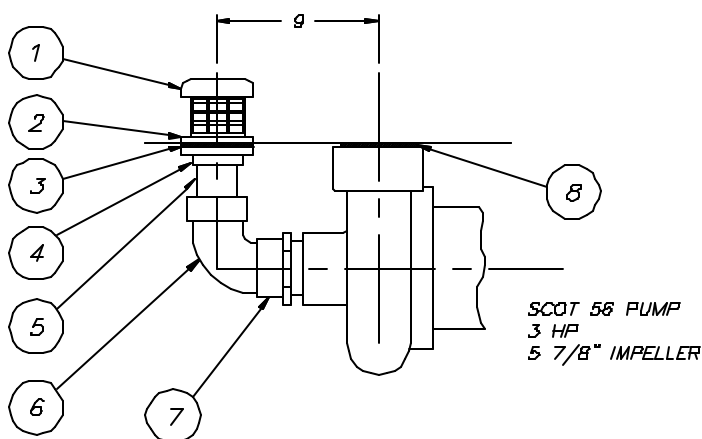
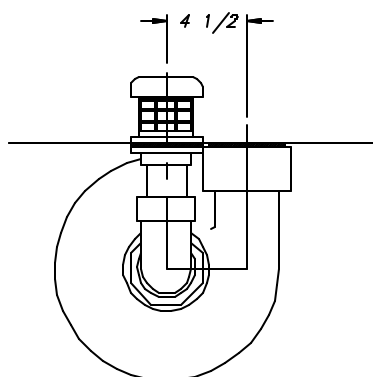


ITEM	PART NO.	DESCRIPTION	QTY.
1	954-50A	UPPER VALVE BODY	1
2	954-50B	LOWER VALVE BODY	1
3	954-50C	O-RING NUT	1
4	954-50D	OVERFLOW TUBE	1
5	1370-3	SKIMMER CAP (MODIFIED)	1
6	D2-557	*V* SEAL	1
7	954-9	SEALING WASHER	1
8	D2-549	O RING	1
9	D2-550	O RING	2
10	1370-5	SKIMMER CAP TAB	1
11	1370-11	PLUG	1
12	D315A-H3-H1	90° ELL 1-1/2 C x 1-1/2 FPT	1
13	1370-6	UPPER BRACKET	1
14	1370-7	LOWER BRACKET	1
15	D-207A-B12-17	CU TUBE, 1-1/2 CTS x 4-1/4 LG	1
16	D2738	SPRING PLUNGER	1
17	1370-30	LIFT HANDLE	1
18	D311-8	ROLL PIN, 1/8 DIA	2
19	SEE TABLE	LIFT ROD	1
20	D2739	CLAMP COLLAR, 1/4 DIA	1
21	SK 3476	DECAL	1
22	1370-19	INSTALLATION NOTES	X
23	D305A	DRAIN JAM NUT	1

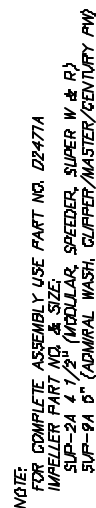
			TOLERANCES
			FRACTIONS ±1/64
			DECIMALS .XXX ± .005
			.XX ± .01
			ANGLES ±1/2°
			UNLESS OTHERWISE SPECIFIED
REV	ECN NO	DATE	
FILE: PARTS\1370-20			

TITLE DRAIN ASSY - SELF CLOSING MASTER STEAM HEAT		NEXT ASSY	DWG. NO.
MAT'L NOTED		REQ'D 3	1370-20
		SCALE 1=4	USED ON MASTER
 Insinger Machine Company Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-8986		DRWN/DATE MFJ 10.16.92	

ITEM	PART NO.	SIZE	DESCRIPTION	QTY.
1	D2-541	A	SUCTION STRAINER	1
2	D2-135	A	STRAINER FLANGE	1
3	D-530	A	GASKET	1
4	1104-68	A	TANK FLANGE	1
5	D207A-B21-11	-	COPPER TUBING 3" CTS X 2 3/4 LG.	1
6	D316A-L3-L4	-	90° FTG. ELBOW 3" C	1
7	D317A-L2-L3	-	ADAPTER 3" MIPS X 3" C	1
8	1104-67	A	GASKET	1



			TOLERANCES	TITLE	SUCTION LINE	NEXT ASSY	DWG. NO.
			FRACTIONS ±1/64		ASSEMBLY	REQ'D 1	1104-69
			DECIMALS				
			.XXX ± .005				
			.XX ± .01				
			ANGLES ±1/2°		NOTED	SCALE 1=8	USED ON MASTER
			UNLESS OTHERWISE SPECIFIED				
REV	ECN NO	DATE		 Insinger Machine Company	Philadelphia, PA 19135 (215) 624-4800		DRWN/DATE
FILE: PARTS\1104-69					FAX (215) 824-6986		PHILIP 10.7.87

[illegible]

ITEM	PART NO.	DESCRIPTION	QTY.
1	-	MOTOR	1
2	104.000.165	FINGER	1
3	118.000.117	O-RING, SHAFT	1
4	110.000.178	SHAFT SLEEVE, BRONZE	1
5	132.000.202	ADAPTER IRON - IM140/180	1
6	101.000.168	SEAL, 1 1/2"	1
7	104.000.174	SEAL RETAINER	1
8	118.000.157	GASKET, CASE	1
9	-	IMPELLER, 6 7/8"	1
10	102.000.102	KEY	1
11	118.000.1639	IMPELLER RETAINER	1
12	103.000.152	WEAR RING	1
13	-	CASE	1

TOLERANCES		TITLE		PARTS LIST		NEXT ASSY DWG. NO.	
FRACTIONS	±1/64	SKETCH	3 HP SCOT 30 FC/MP	REV'D	-	SK	-4702
DECIMALS	±.005	WATL	-	SCALE	-	USED ON	VARIOUS
ANGLES	±1/2°	REV	-	DATE	-	DRWN/DATE	DOC
UNLESS OTHERWISE SPECIFIED		INSINGER		PINEBURG, PA 19130		215 834-4800	
FILE: SKETCH 15K-1702		INSINGER		FAX (215) 834-8008		JL24.04	

TO AUTO TANK FILL &
FLUSH CONNECTION
ASSY DMC NO. 1100-282

7

27

14

SECTION A-A
TYP. 2 PLACES

HOOD REAR

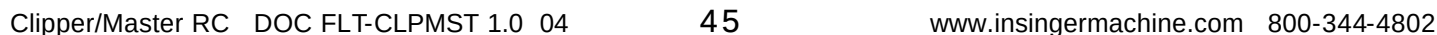
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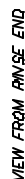
RINSE

WASH

NOTE:
FOR COLD WATER THERMOSTAT PIPING
SEE DWG. NO. 1100-87.

[illegible]

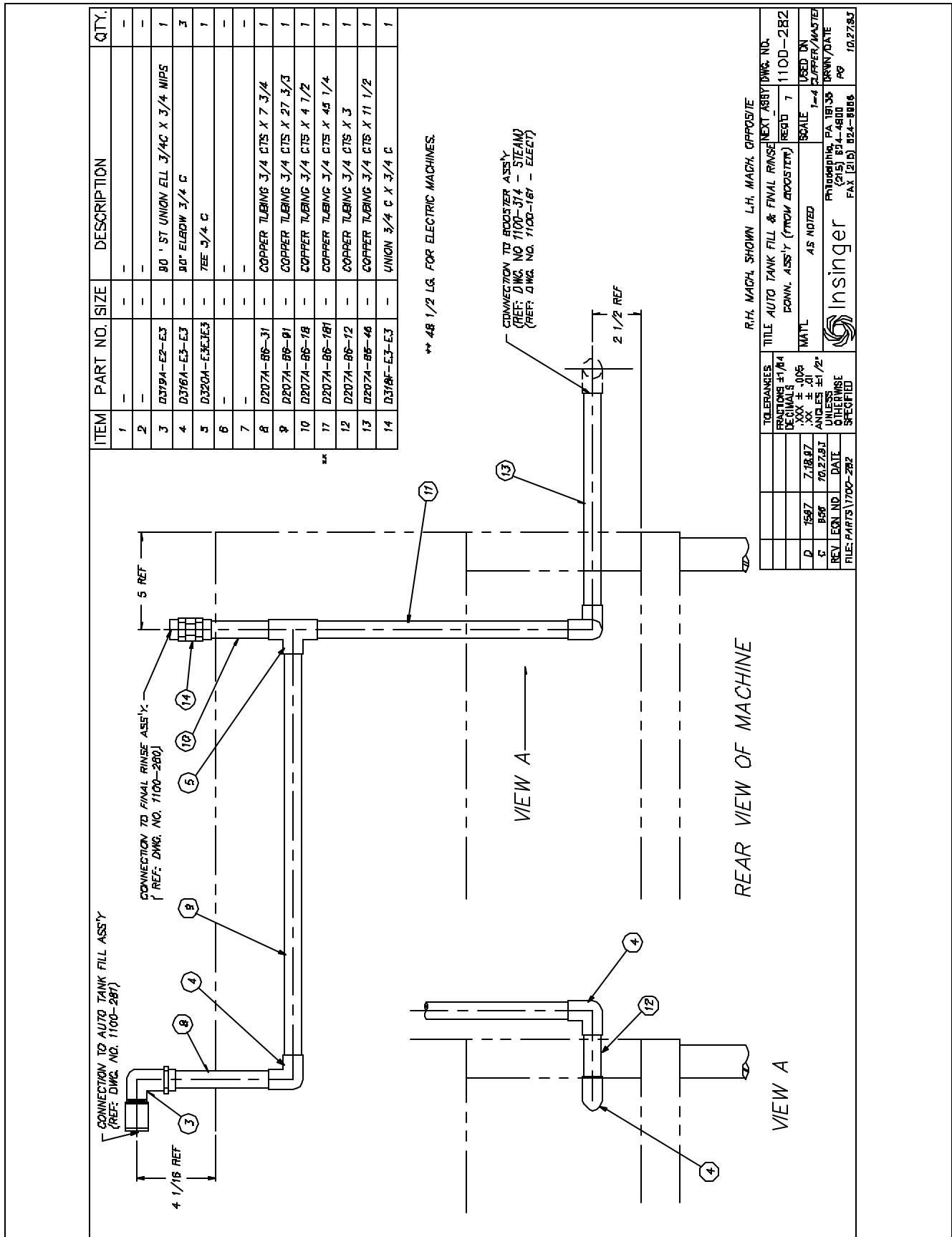


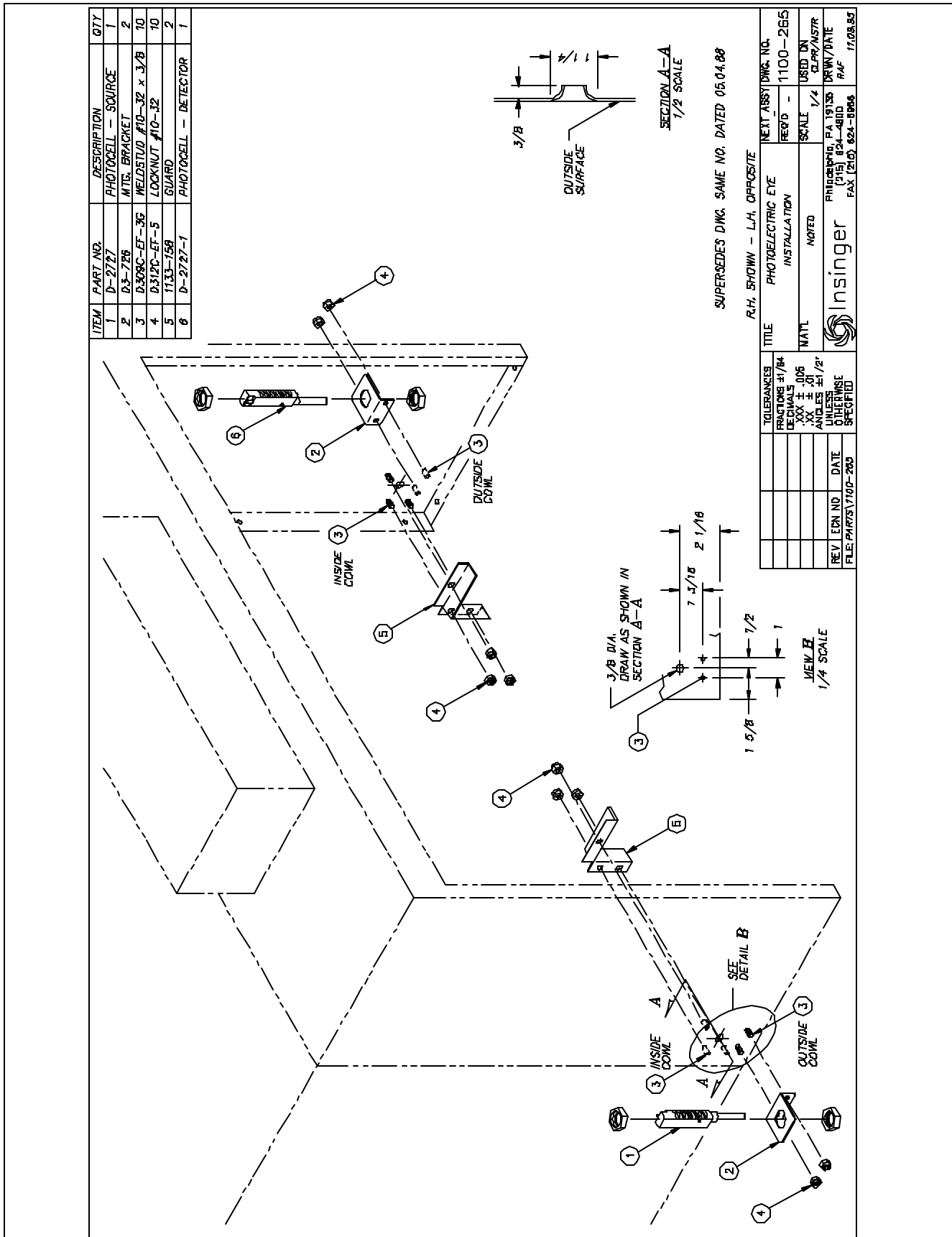


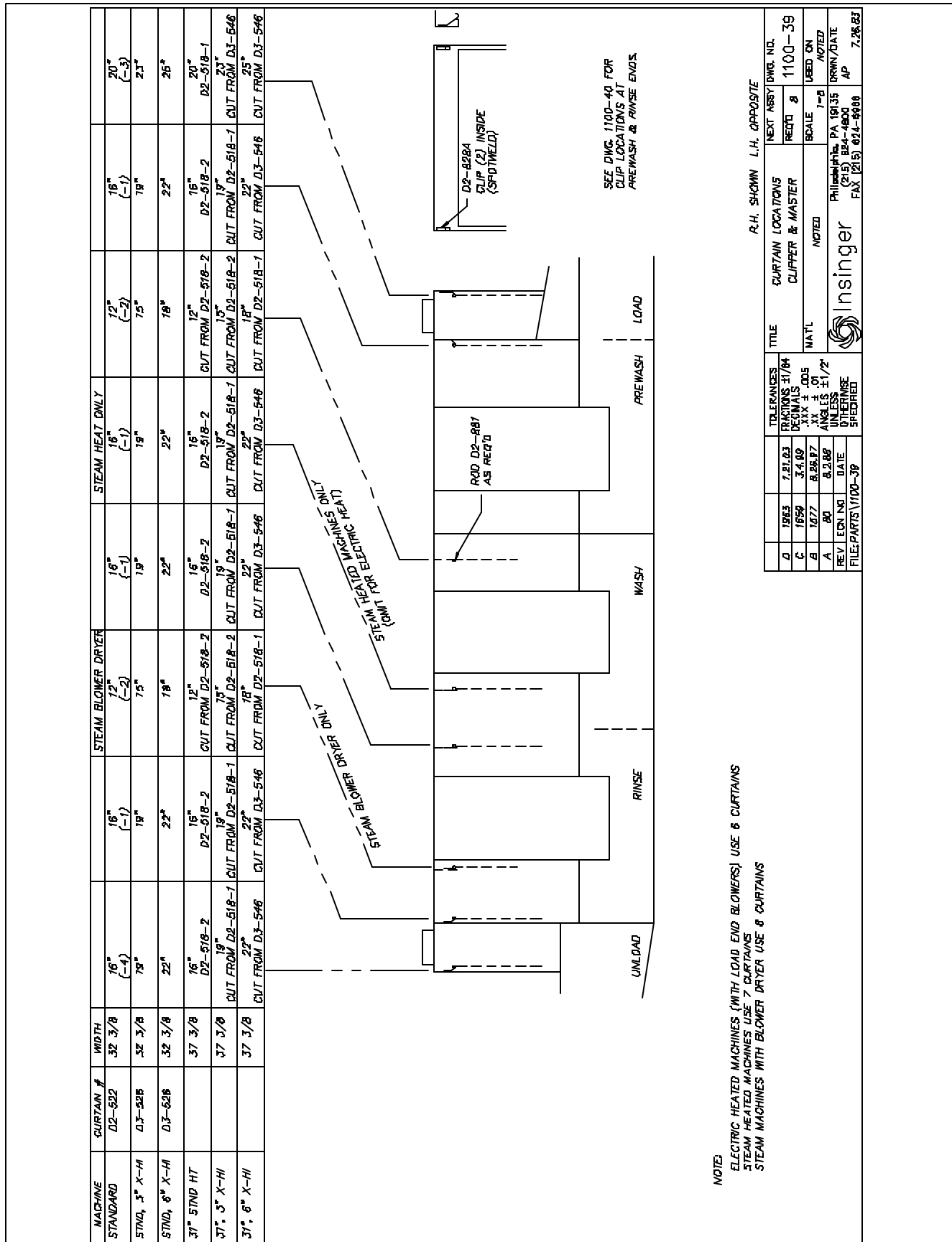
NASHINE	ITEM # 1	ITEM # 2	ITEM # 3	2 nd DIM.
STANDARD	1100-37B	1100-32BA	1100-32B	14 1/2
STD WIDE, 3 rd EX HIGH	1100-37BA	1100-32B	1100-32B	17 1/2
STD WIDE, 6 th EX HIGH	1100-37EB	1100-32BA	1100-32B	50 1/2
31 WIDE-STD HIGH	1100-37AC	1100-32BA	1442-29	14 1/2
31 WIDE, 3 rd EX HIGH	1100-37BC	1100-32BA	1442-29	17 1/2
31 WIDE, 6 th EX HIGH	1100-37EC	1100-32BA	1442-29	50 1/2

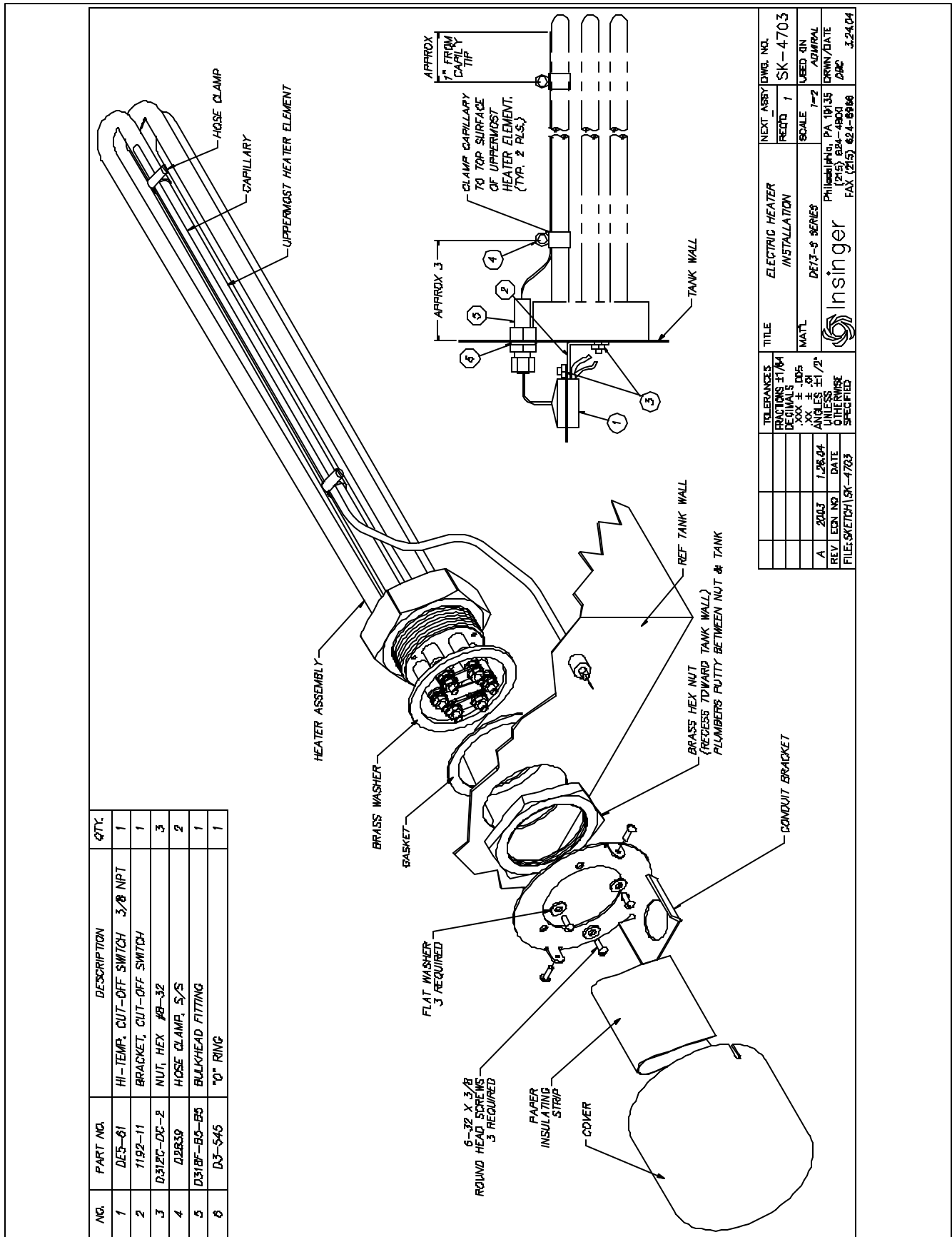
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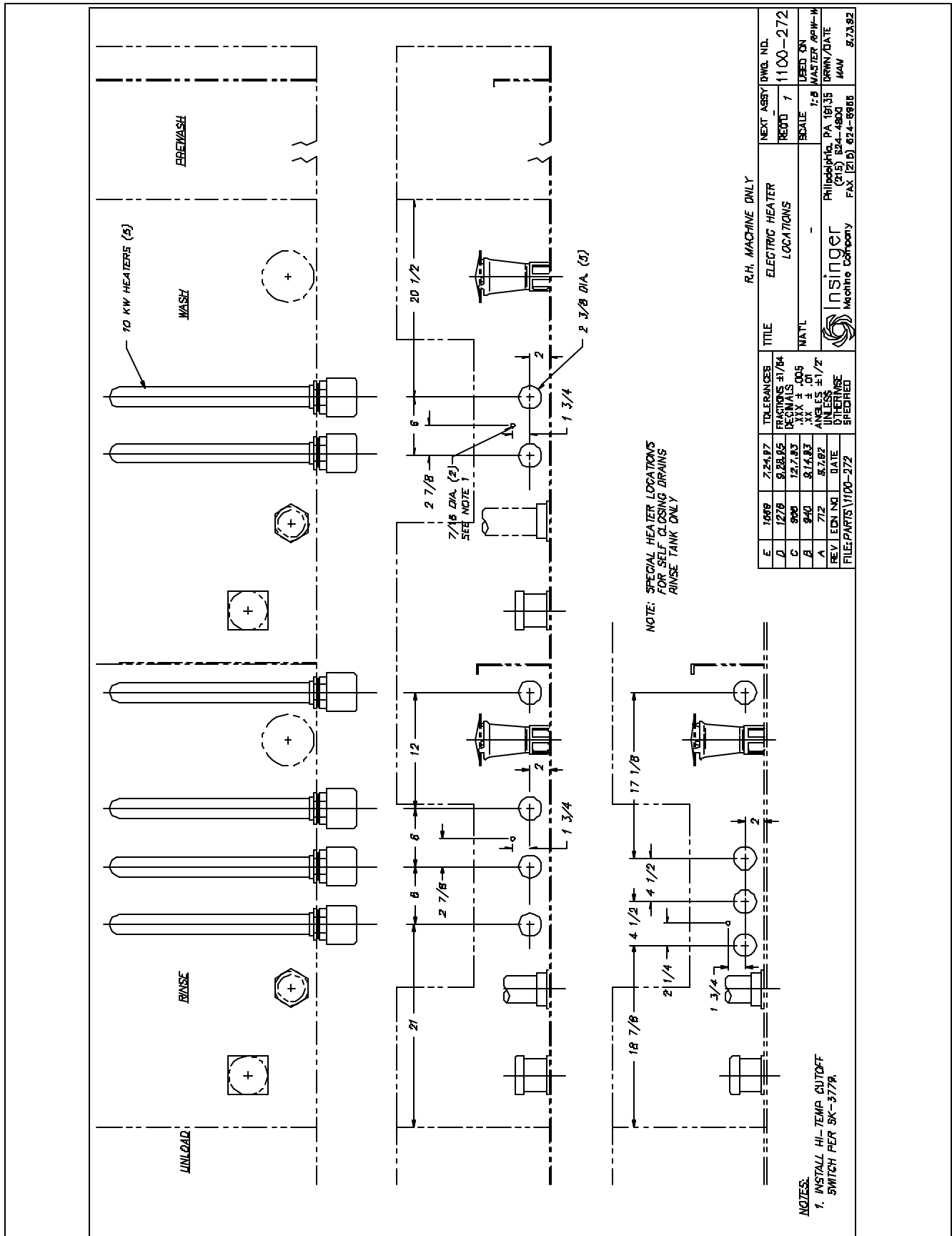
* DENOTES NICKEL PLATED

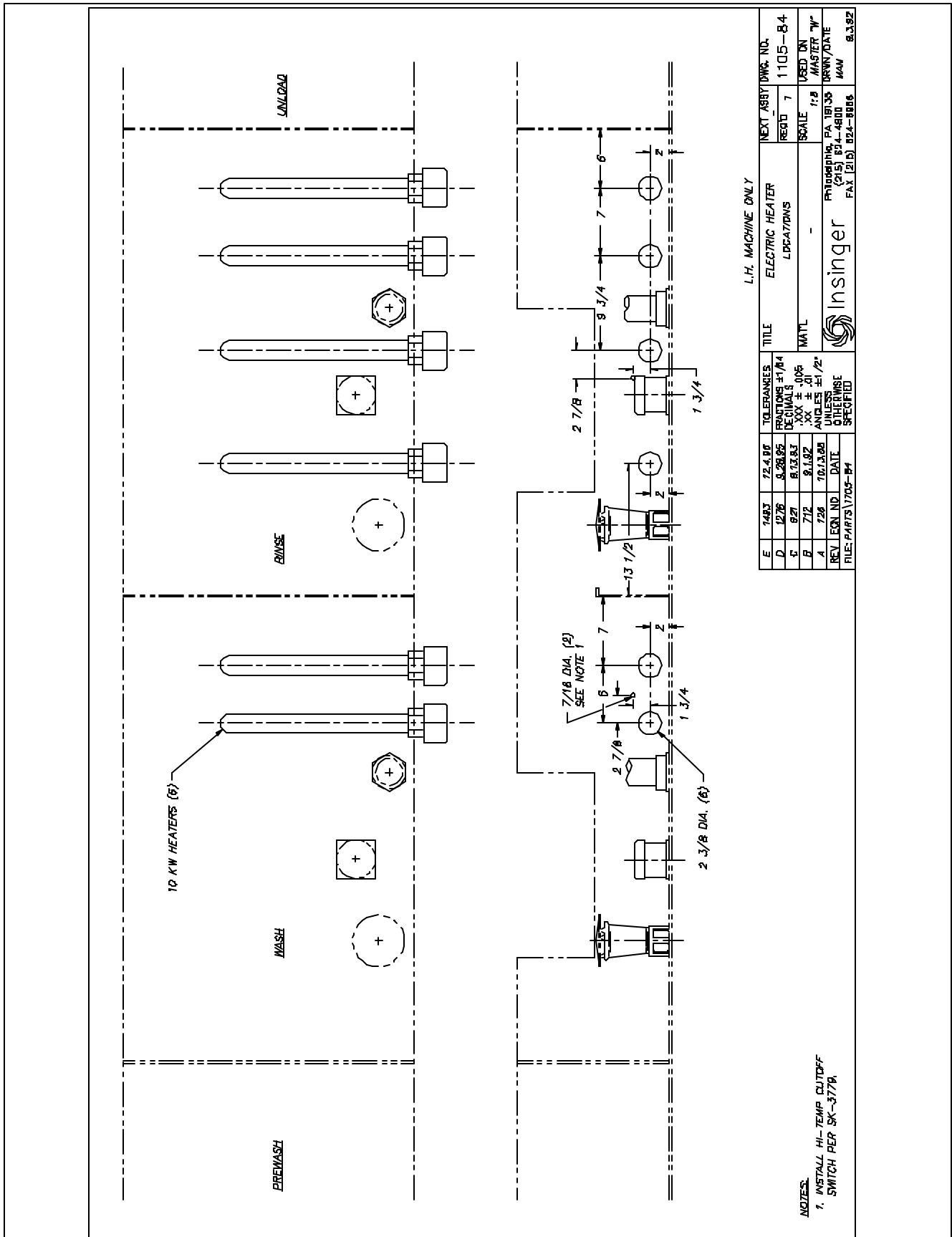




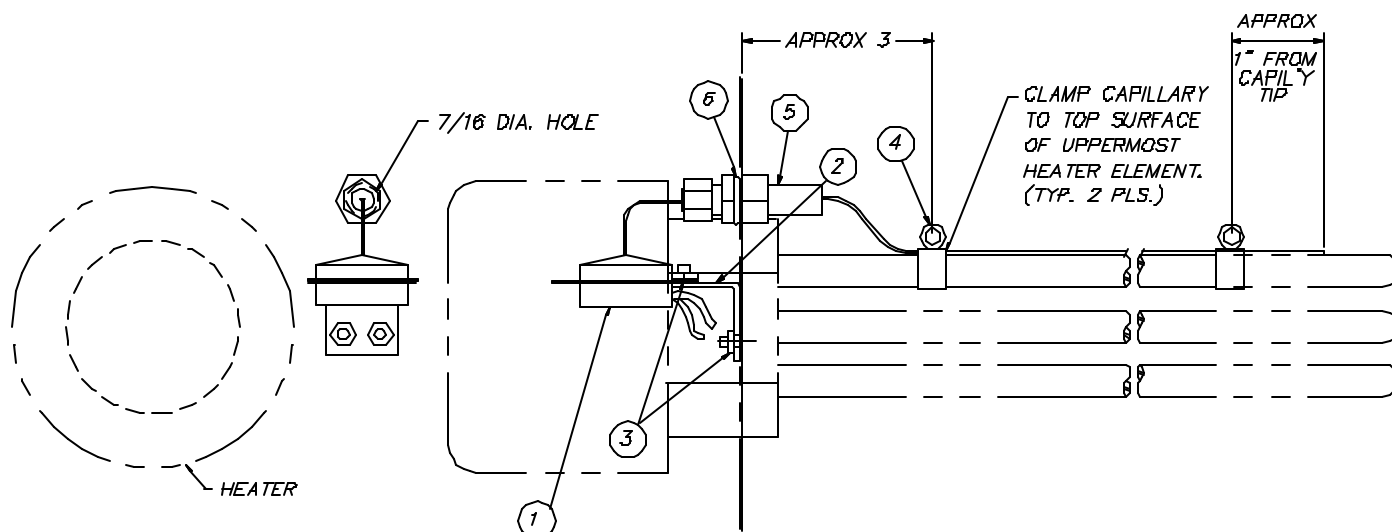






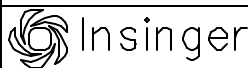


NO.	PART NO.	DESCRIPTION	QTY.
1	DE5-61	HI-TEMP. CUT-OFF SWITCH 3/8 NPT	1
2	1192-11	BRACKET, CUT-OFF SWITCH	1
3	D312G-DC-2	NUT, HEX #8-32	3
4	D2839	HOSE CLAMP, S/S	2
5	D318F-B5-B5	BULKHEAD FITTING	1
6	D3-545	"O" RING	1

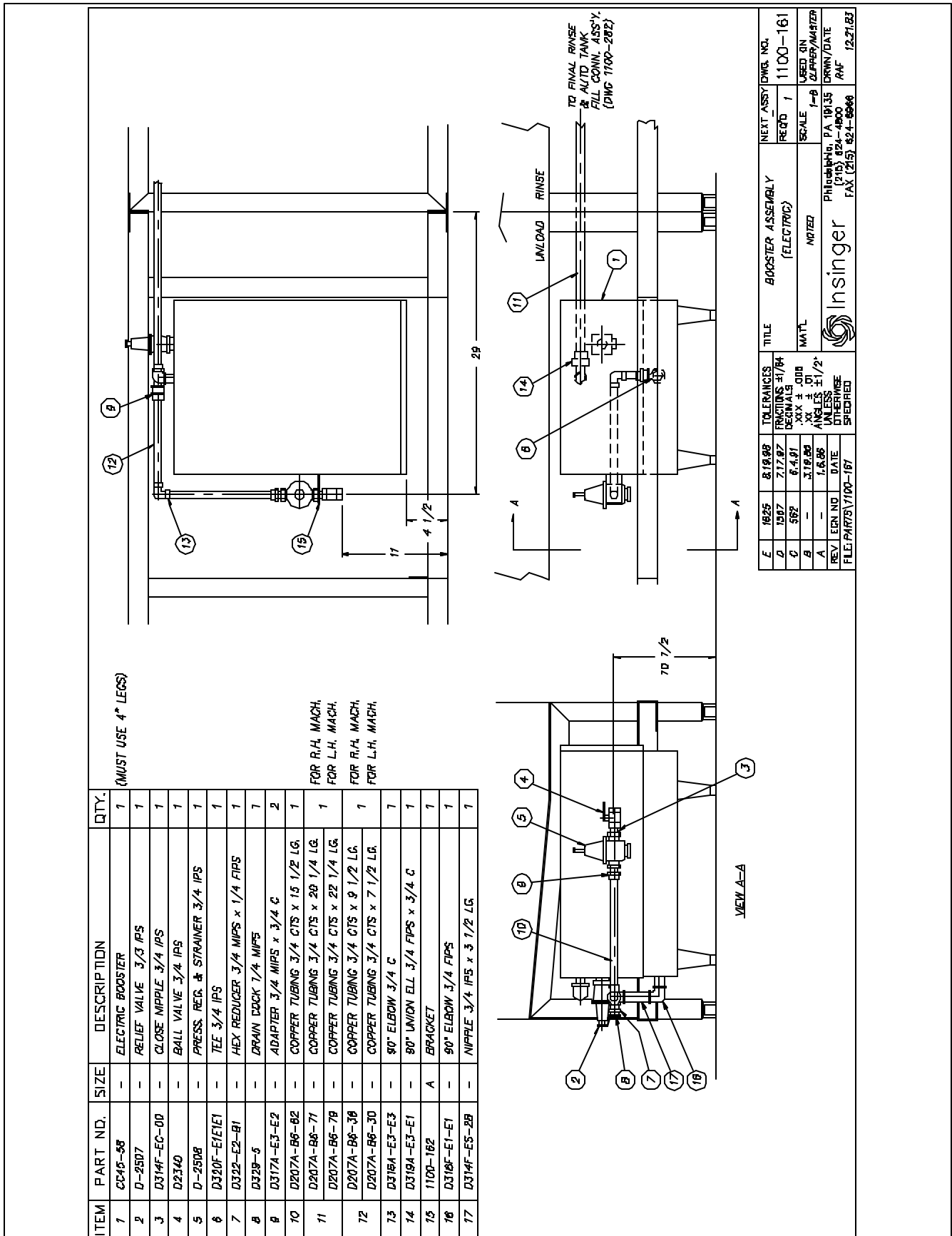


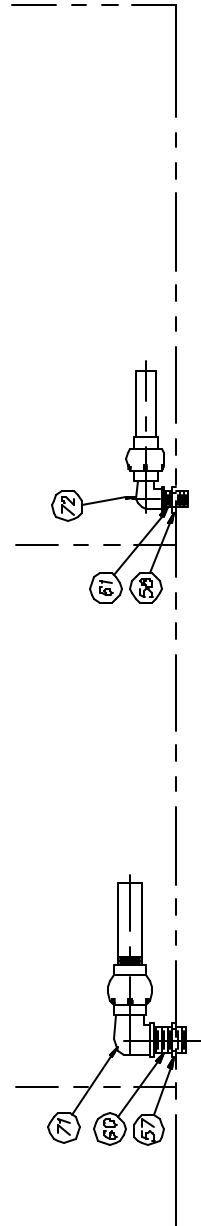
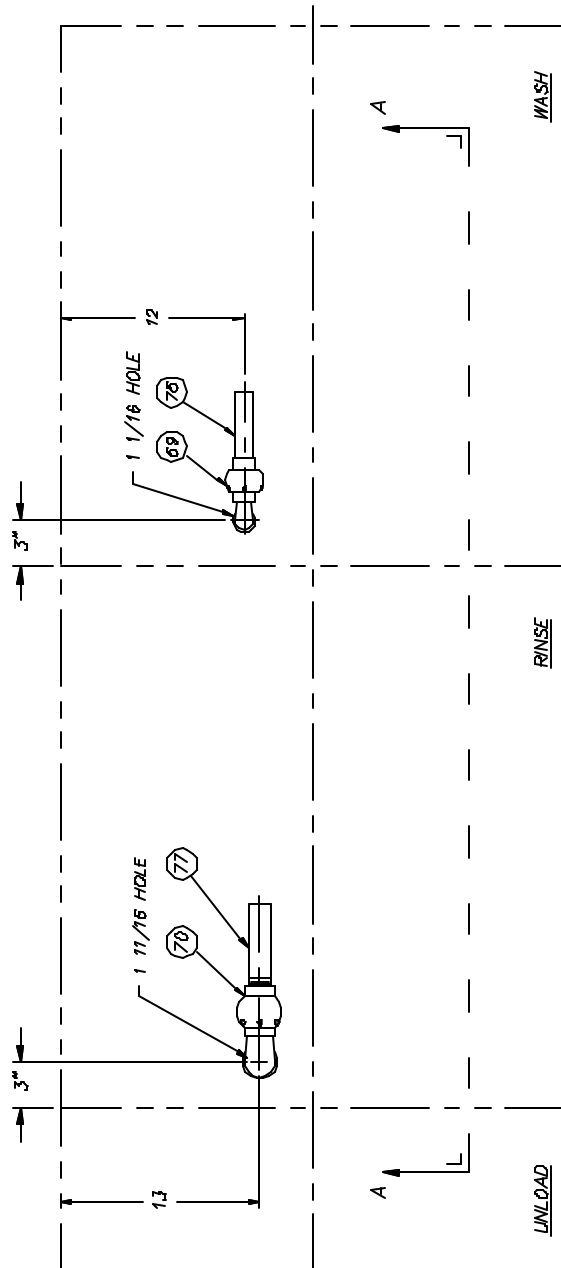
NOTE: ARRANGEMENT SHOWN IS TYPICAL; HOWEVER, IN SOME MODELS (e.g. MASTER L.H. RINSE TANK), ARRANGEMENT IS OPPOSITE.

			TOLERANCES	TITLE	HI-TEMP CUTOFF SWTCH INSTALLATION	NEXT ASSY	DWG. NO.
			FRACTIONS ±1/84 DECIMALS	MAT'L	-	REQ'D	SK-3779
			.XXX ± .005 .XX ± .01			SCALE	USED ON
A	1764	6.1.00	ANGLES ±1/2° UNLESS OTHERWISE SPECIFIED			1:2	FLITE
REV	ECN NO.	DATE		Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-8966			DRWN/DATE MAM
FILE: SKETCHA\SK-3779							9.27.95



Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966





VIEW A - A

R.H. SHOWN - L.H. OPPOSITE				SHEET 1 OF 3	
TOLERANCES		TITLE		NEXT ASSY/DWG. NO.	
FRACTIONS ±1/64		STEAM PIPING (INJECTORS)		REQ'D 1	1105-72
DECIMALS .005		WASH & RINSE TANKS		SCALE	1-8 CLIPPER/MASTER
XX ± .01		NAT'L AS NOTED		USED ON	PC
ANGLES ±1/2°		Philadelphia, PA 19135		DATE	11.8.93
UNLESS OTHERWISE SPECIFIED		(215) 824-4800			
REV	ECN NO	DATE			
FILE:PARTS\1105-72		FAX (215) 824-8968			



ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
62	—	—	—	31	D2695	SOLENOID VALVE 3/4 IPS	1	1	D2100	STEAM ROOSTER (1-2) (SEE NOTE #1)	1
63	—	—	—	32	D316A-E3-E4	90° ELBOW 3/4 CTS X 3/4 C	1	2	D316F-F1-F2	90° STREET ELL 1" NIPS X 1" CDS	1
64	—	—	—	33	D207A-B8-32	COPPER TUBING 3/4 CTS X 3/4	1	3	D317A-E2-D1	ADAPTER 3/4 X 1" NIPS	1
65	D314F-DC-00	NIPPLE CLOSE 1/2 IPS	2	34	D2702A	STEAM TRAP 1/2 IPS	1	4	D207A-B8-10	COPPER TUBING 3/4 CTS X 4" LG	2
66	D316A-E3-E3	90° ELBOW 3/4 C	1	35	D314F-FC-00	NIPPLE CLOSE 1" IPS	1	5	D316A-E3-E3	90° ELL 3/4 C	2
67	D317A-E1-E3	ADAPTER 3/4 FPS X 3/4 C	1	36	D320F-F1D1E1	TEE 1" FPS X 1/2 FPS X 3/4 FPS	1	6	D207A-B8-14	COPPER TUBING 3/4 CTS X 3 1/2 LG	1
68	D207A-B8-20	COPPER TUBING 3/4 CTS X 5" LG	1	37	D328F-D2-C1	HEX RED 1/2 NIPS X 3/8 FPS	1	7	D316A-E3-E2	90° ELBOW 1/2 C X 1/2 NIPS	1
69	D-942A	STEAM INJECTOR 3/4 IPS	1	38	D2396	THERMOSTAT (SEE NOTE 2)	1	8	D2695	SOLENOID VALVE 3/4 NIPS	1
70	D-245B	STEAM INJECTOR 1 1/4 IPS	1	39	D316F-E2-E2	90° RED ELL 3/4 FPS X 7/2 FPS	1	9	D316A-E3-E2	UNION 3/4 C X 3/4 NIPS	1
71	D316A-D1-E2	90° STREET ELL 1 1/4 IPS	1	40	D320F-E1E1E1	TEE 3/4 IPS	1	10	D323A-F4-E3	FLUSH BUSHING 1" T70 X 3/40	1
72	D316A-E1-E2	90° STREET ELL 3/4 IPS	1	41	D2407	PRESSURE RELIEF VALVE 3/4 FPS	1	11	D207A-B8-28	COPPER TUBING 3/4 CTS X 7" LG	1
73	D245A	HORIZ. CHECK VALVE 1 1/4 C	1	42	D316A-E3-E2	UNION 3/4 C X 3/4 NIPS	1	12	D317A-E3-E2	ADAPTER 2" C X 2" NIPS	1
74	D2710	90° ELBOW 3/4 C X 1/4 C	1	43	D316A-E3-E2	90° ELBOW 3/4 C X 3/4 NIPS	2	13	D2758	"Y" STRAINER 2" IPS	1
75	D207A-B10-34	COPPER TUBING 1 1/4 CTS X 6	1	44	D207A-B8-34	COPPER TUBING 3/4 CTS X 6	1	14	D314F-FC-00	NIPPLE CLOSE 2" IPS	1
76	D314F-FS-48	NIPPLE 1 FPS X 6	1	45	D2695	PRESS. REG. & STRAINER 3/4 FPS	1	15	D2757	BALL VALVE 2" IPS	1
77	D314F-HS-48	NIPPLE 1 1/2 IPS X 6	1	46	D314F-EC-00	NIPPLE CLOSE 3/4 IPS	2	16	D207A-B10-21	COPPER TUBING 1 1/4 CTS X 1 1/4 C	1
				47	D2340	BALL VALVE 3/4 IPS	1	17	D316A-E3-E3	90° ELBOW 1 1/4 C X 1 1/4 C	2
				48	D317A-E3-E3	ADAPTER 1" C X 1" NIPS	1	18	D207A-B10-34	COPPER TUBING 2" CTS X 6" LG	1
				49	D207A-B8-18	COPPER TUBING 1" CTS X 4 3/4	1	19	D316A-E3-E3	UNION 1 1/4 C X 1 1/4 C	2
				50	D316A-E3-E3	90° ELBOW 1" C X 1" C	2	20	D207A-B10-08	COPPER TUBING 1 1/4 CTS X 18 1/2	1
				51	D207A-B8-15	COPPER TUBING 1" CTS X 3 3/4	1	21	D230A-D3E203	TEE 1 1/4 C X 3/4 C X 1 1/4 C	1
				52	D316A-E3-E2	90° ELBOW 1" C X 1" NIPS	1	22	D317A-E4-E2	ADAPTER 1 1/4 CTS X 1 1/4 NIPS	2
				53	D2772	SOLENOID VALVE 1" IPS	1	23	D2475	SOLENOID VALVE 1 1/4 IPS	1
				54	D316A-E3-E2	UNION 1" C X 1" NIPS	1	24	D207A-D3E203	TEE 2" X 1 1/4 C X 1 1/4 C	1
				55	D207A-B8-18	COPPER TUBING 1" CTS X 4 1/2 LG	1	25	D316A-E3-E4	90° ELBOW 1 1/4 C X 1 1/4 C	1
				56	D207A-B8-24	COPPER TUBING 1" CTS X 6" LG	1	26	D207A-B10-12	COPPER TUBING 1 1/4 CTS X 3	1
				57	D328A-G1	LOCKNUT 1 1/4 IPS	1	27	—	—	—
				58	D328F-E1	LOCKNUT 3/4 IPS	1	28	D317A-E4-E1	ADAPTER 1 1/4 FPS X 1 1/4 CTS	1
				59	—	—	—	29	D207A-B-38	COPPER TUBING 3/4 CTS X 9 1/2	1*
				60	D314F-E4-E6	NIPPLE 1 1/4 IPS X 2" ALL THD	1	30	D207A-B8-40	COPPER TUBING 3/4 CTS X 22 1/2	1**
				61	D314F-EA-E6	NIPPLE 3/4 IPS X 2" ALL THD	1		D317A-E3-E2	ADAPTER 3/4 C X 3/4 NIPS	4

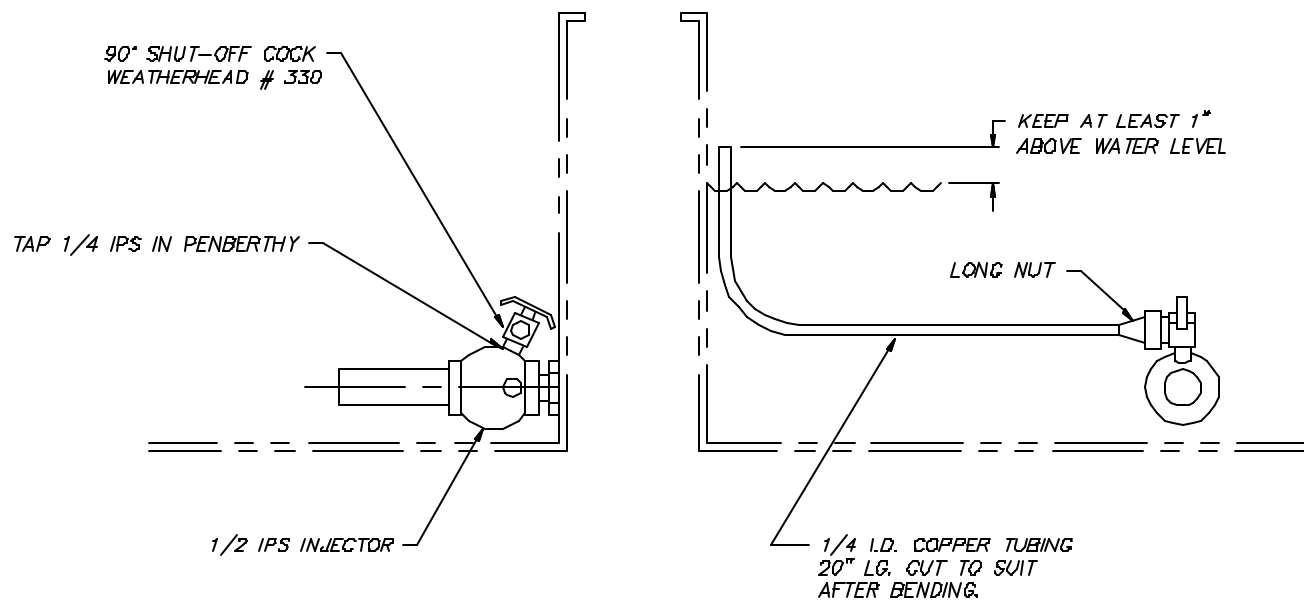
NOTE :
 1. (ITEM #1) ADD SUFFIX "NM" FOR NON-MAGNETIC MACHINES.
 2. (ITEM #64) USE PART NO. D2308 AS STANDARD AND
 PART NO. D2301 WHEN LOW TEMP. CLT-OFF IS SPECIFIED.

* FOR CLIPPER ONLY
 ** FOR MASTER ONLY

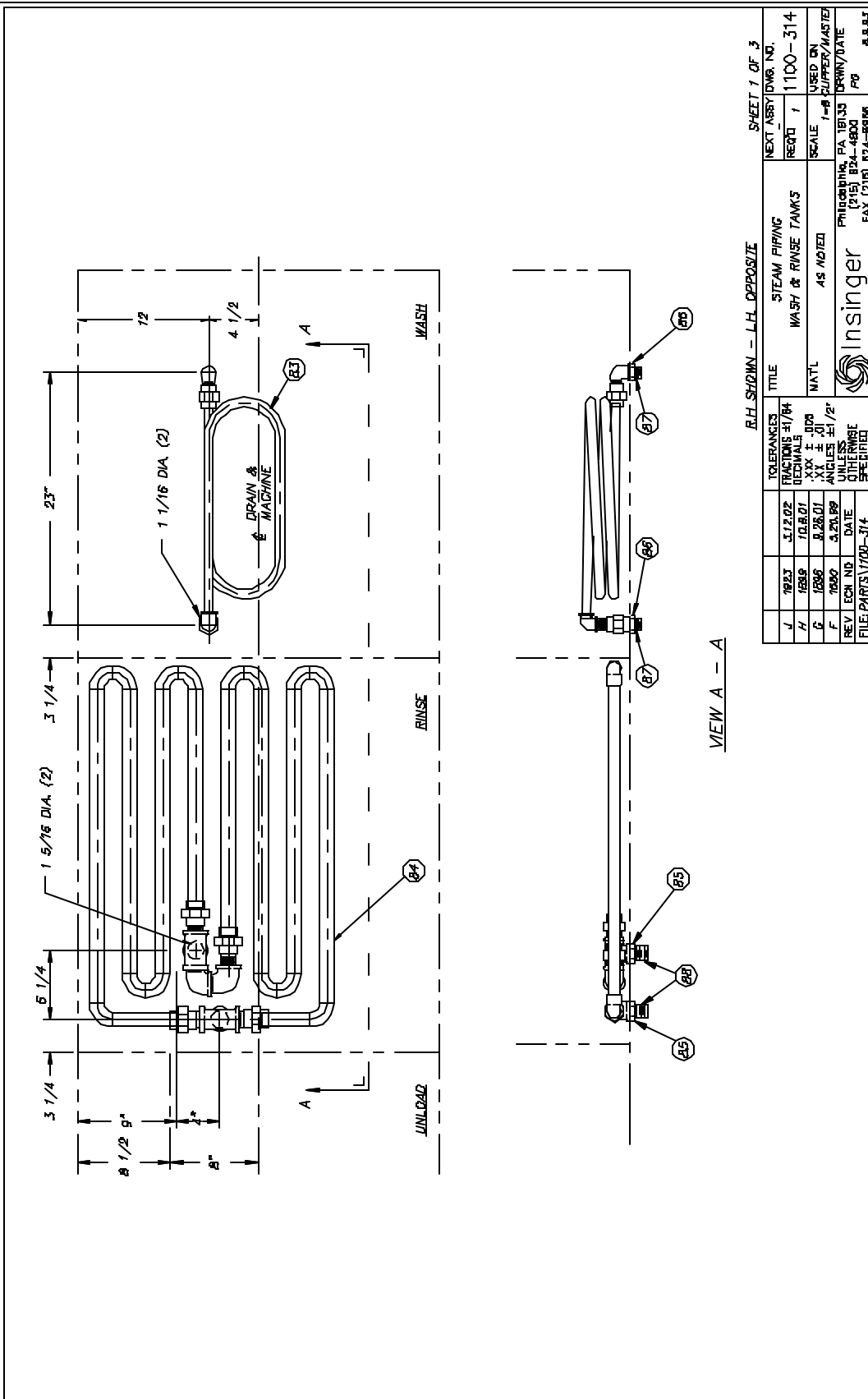
TOLERANCES ±1/64		FRACTIONS ±1/64		TOLERANCES ±1/64		FRACTIONS ±1/64	
C	1040	6.12.02	XXX ± .000	C	1040	6.12.02	XXX ± .000
F	1567	7.24.87	XXX ± .001	F	1567	7.24.87	XXX ± .001
E	1311	722.80	XXX ± .001	E	1311	722.80	XXX ± .001
REV	CON NO	DATE	FILE PARTS	REV	CON NO	DATE	FILE PARTS
		1106-72					

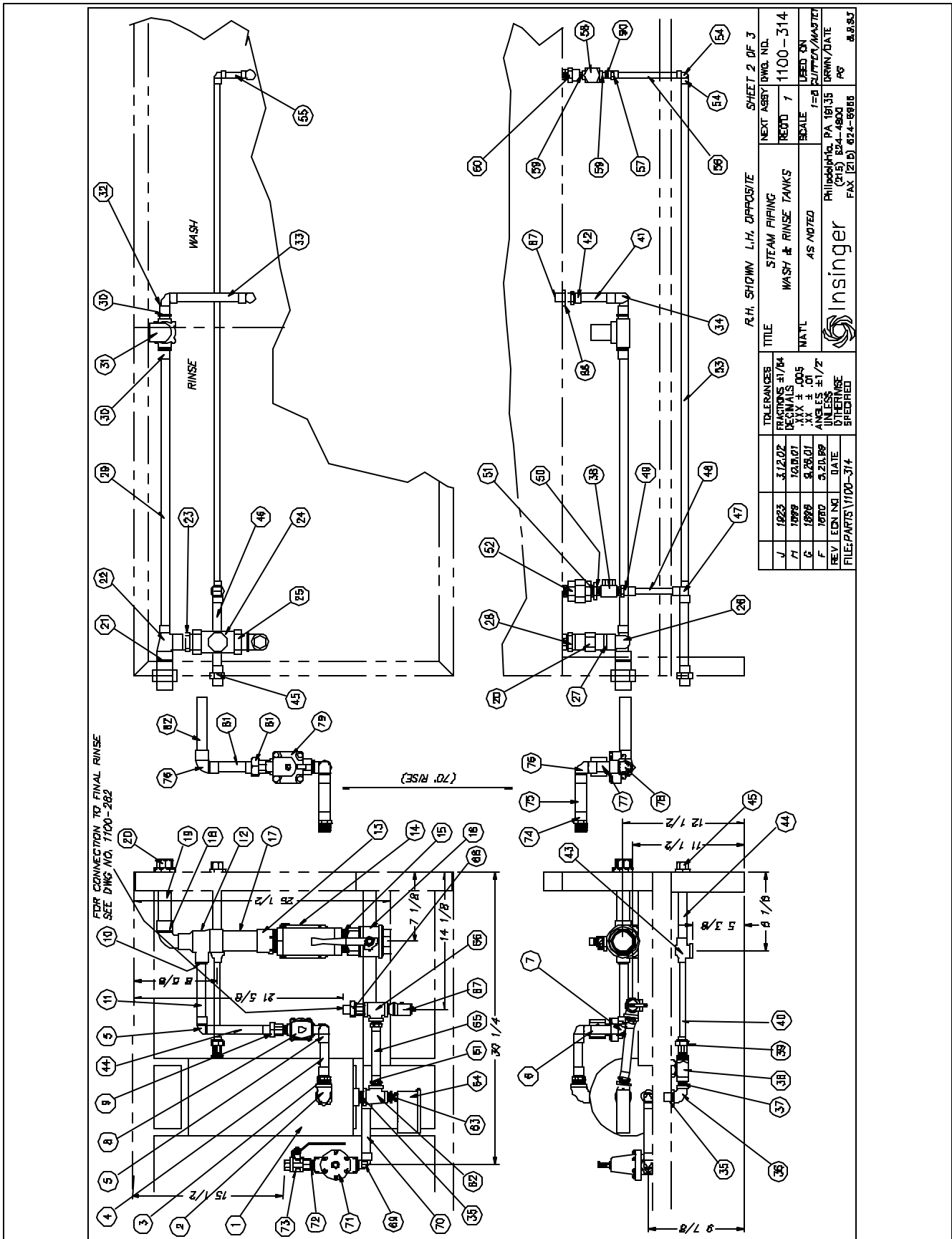
TITLE	STEAM FIRING (INJECTORS)	WASH & RINSE TANKS	SCALE	USED ON
MATL	AS NOTED	AS NOTED	1-8 CLIPPER/MASTER	1105-72
PHILADELPHIA, PA 19135				
(215) 824-4800				
FAX (215) 824-6866				

Insinger
 11.8.03



			TOLERANCES	TITLE	STEAM SILENCER ASSEMBLY	NEXT ASSY	DWG. NO.
			FRACTIONS ±1/64			REQ'D	199-76
			DECIMALS				
			.XXX ± .005				
			.XX ± .01	MAT'L		SCALE	USED ON
			ANGLES ±1/2°			FULL	ENGIN 40-2
			UNLESS				
			OTHERWISE				
			SPECIFIED				
REV	ECN NO	DATE		Philadelphia, PA 19135			DRWN/DATE
FILE: PARTS \ 199-76				(215) 624-4800			AP
				FAX (215) 624-6966			4.78.87





ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
61	D317A-E3-E2	ADAPTER 3/4" X 3/4" IPS	2	31	D2595	SOLENOID VALVE 3/4" IPS	1	1	D2100	STEAM BOOSTER (1-2) (SEE NOTE #1)	1
62	D320F-F1-D1	TEE 1" FIPS X 1/2" FIPS X 3/4" FIPS	1	32	D318A-E3-E4	90° ELBOW 3/4" C X 3/4" FTS	1	2	D314F-F1-F2	90° STREET EL 1" FIPS X 7" MFS	1
63	D320F-F2-C1	HEX RED 1/2" MFS X 3/8" FIPS	1	33	D207A-B6-B2	COPPER TUBING 3/4" CTS X 8	1	3	D317A-E3-E2	ADAPTER 3/4" C X 1" MFS	1
64	D2596	THERMOSTAT (SEE NOTE 2)	1	34	D318A-E3-E3	90° EL 3/4" C X 3/4" C	1	4	D207A-B6-B2	COPPER TUBING 3/4" CTS X 4"	1
65	D207A-B6-B6	COPPER TUBING 3/4" CTS X 4" L8	1	35	D314F-F2-D2	CLOSE NIPPLE 3/4" IPS	1	5	D318A-E3-E3	90° EL 3/4" C	2
66	D320F-F1-E1	TEE 3/4" IPS	1	36	D318A-E3-E2	90° RED EL 3/4" IPS X 1/2" FIPS	1	6	D207A-B6-B6	COPPER TUBING 3/4" CTS X 3 1/2"	1
67	D2597	PRESSURE RELIEF VALVE 3/4" IPS	1	37	D314F-F2-D2	CLOSE NIPPLE 1/2" IPS	1	7	D318A-E3-E2	90° ELBOW 3/4" C X 3/4" MFS	1
68	D318A-E3-E2	UNION 3/4" C X 3/4" MFS	1	38	D2102A	STEAM TRAP 1/2" IPS	2	8	D2595	SOLENOID VALVE 3/4" IPS	1
69	D318A-E3-E2	90° ELBOW 3/4" C X 3/4" MFS	2	39	D318A-E3-E2	UNION 1/2" C X 1/2" MFS	1	9	D318A-E3-E2	UNION 3/4" C X 3/4" MFS	1
70	D207A-B6-B6	COPPER TUBING 3/4" CTS X 6	1	40	D207A-B6-B6	COPPER TUBING 1/2" CTS X 8 1/4"	1	10	D320A-F4-F4	FLUSH ELBOW 1" FTS X 3/4"	1
71	D2598	PRESS REG & STRAINER 3/4" IPS	1	41	D207A-B6-B6	COPPER TUBING 3/4" CTS X 4" L8	1	11	D207A-B6-B6	COPPER TUBING 3/4" CTS X 7"	1
72	D314F-F2-D2	NIPPLE CLOSE 3/4" IPS	1	42	D317A-E3-E1	ADAPTER 3/4" C X 3/4" FIPS	1	12	D320A-F4-F4	TEE 2" C X 1 1/4" C X 1" C	1
73	D2599	BALL VALVE 3/4" IPS	1	43	D320A-F4-F4	TEE 3/4" C X 1 1/2" C X 3/4" FIPS	1	13	D317A-E3-E2	ADAPTER 2" C X 2" MFS	1
74	D317A-E3-E2	ADAPTER 1" C X 1" MFS	1	44	D207A-B6-B6	COPPER TUBING 3/4" CTS X 7	1	14	D2706	Y-STRAINER 2" IPS	1
75	D207A-B6-B6	COPPER TUBING 1" CTS X 3 1/4"	1	45	D318A-E3-E3	UNION 3/4" C	1	15	D314F-F2-D2	NIPPLE CLOSE 2" IPS	1
76	D318A-E3-E3	90° ELBOW 1" C X 1" C	1	46	D207A-B6-B6	COPPER TUBING 3/4" CTS X 7 L8	1	16	D2707	BALL VALVE 2" IPS	1
77	D207A-B6-B6	COPPER TUBING 1" CTS X 3 3/4"	1	47	D320A-F4-F4	TEE 3/4" C X 1 1/2" C X 3/4" C	1	17	D207A-B6-B6	COPPER TUBING 2" CTS X 8"	1
78	D318A-E3-E3	90° ELBOW 1" C X 1" MFS	1	48	D207A-B6-B6	COPPER TUBING 3/4" CTS X 5 1/4"	1	18	D318A-E3-E4	90° STREET EL 1 1/4" X 1 1/4" FTS	1
79	D2772	SOLENOID VALVE 1" FIPS	1	49	D317A-E3-E2	ADAPTER 3/4" C X 1/2" MFS	1	19	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 5 1/4"	1
80	D318A-E3-E2	UNION 1" C X 1" MFS	1	50	D314F-F2-D2	NIPPLE CLOSE 1/2" IPS	1	20	D318A-E3-E3	UNION 1 1/4" C X 1 1/4" C	2
81	D207A-B6-B6	COPPER TUBING 1" CTS X 4 1/2"	1	51	D320F-F2-D1	HEX RED 1" MFS X 1/2" FIPS	1	21	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 2 1/2"	1
82	D207A-B6-B6	COPPER TUBING 3/4" CTS X 6" L8	1	52	D318A-E3-E1	UNION 1" IPS	1	22	D320A-F4-F4	TEE 1 1/4" C X 3/4" C X 1 1/4" C	1
83	1100-84	STEAM COIL - WASH	1	53	D207A-B6-B6	COPPER TUBING 1/2" CTS X 5 1/4"	1	23	D317A-E3-E2	ADAPTER 1 1/4" FTS X 1 1/4" MFS	1
84	9019-02	STEAM COIL - RINSE	1**	54	D207A-B6-B6	COPPER TUBING 1/2" CTS X 6 1/4"	1**	24	D2470	SOLENOID VALVE 1 1/4" IPS	1
85	D320F-F1	LOCKNUT 1" IPS	2	55	D318A-E3-E3	90° ELBOW 1/2" C	2	25	D314F-F2-D2	NIPPLE 1 1/4" IPS X 2	1
86	D320F-F1	LOCKNUT 3/4" IPS	2	56	D207A-B6-B6	COPPER TUBING 1/2" CTS X 2 1/4"	1	26	D318A-E3-E4	90° ELBOW 1 1/4" C X 1 1/4" FIPS	1
87	D314F-F2-E1	NIPPLE 3/4" IPS X 1 3/4" ALL THD.	1	57	D318A-E3-E1	UNION 1/2" C X 1/2" FIPS	1	27	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 3	1
88	D314F-F2-E1	NIPPLE 1" IPS X 2" ALL THD.	1	58	D2102	STEAM TRAP 3/8" IPS	1	28	D317A-E3-F1	ADAPTER 1 1/4" C X 1" FIPS	1
89	D314F-F2-E1	NIPPLE 3/4" IPS X 6 1/2" L8	1	59	D314F-F2-D2	NIPPLE CLOSE 3/8" IPS	2	29	D207A-B6-B6	COPPER TUBING 3/4" CTS X 24	1**
90	D320F-F2-C1	RED RUBB. 1/2" MFS X 3/8" FIPS	1	60	D320F-F2-C1	RED COUPLING 3/4" FIPS X 3/8" FIPS	1	30	D318A-E3-E2	COPPER UNION 3/4" C X 3/4" MFS	2
91	1100-315	PIPE SUPPORT	1								

NOTE:
1. (ITEM #1) ADD SUFFIX "NM" FOR NON-MAGNETIC MACHINES.
2. (ITEM #64) USE PART NO. D2596 AS STANDARD AND PART NO. D2301 WHEN LOW TEMP. CUT-OFF IS SPECIFIED.

* FOR CLIPPER ONLY
** FOR MASTER ONLY

TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	D2100	STEAM BOOSTER (1-2) (SEE NOTE #1)	1	1	D2100	STEAM BOOSTER (1-2) (SEE NOTE #1)	1
2	D314F-F1-F2	90° STREET EL 1" FIPS X 7" MFS	1	2	D314F-F1-F2	90° STREET EL 1" FIPS X 7" MFS	1
3	D317A-E3-E2	ADAPTER 3/4" C X 1" MFS	1	3	D317A-E3-E2	ADAPTER 3/4" C X 1" MFS	1
4	D207A-B6-B6	COPPER TUBING 3/4" CTS X 4"	1	4	D207A-B6-B6	COPPER TUBING 3/4" CTS X 4"	1
5	D318A-E3-E3	90° EL 3/4" C	2	5	D318A-E3-E3	90° EL 3/4" C	2
6	D207A-B6-B6	COPPER TUBING 3/4" CTS X 3 1/2"	1	6	D207A-B6-B6	COPPER TUBING 3/4" CTS X 3 1/2"	1
7	D318A-E3-E2	90° ELBOW 3/4" C X 3/4" MFS	1	7	D318A-E3-E2	90° ELBOW 3/4" C X 3/4" MFS	1
8	D2595	SOLENOID VALVE 3/4" IPS	1	8	D2595	SOLENOID VALVE 3/4" IPS	1
9	D318A-E3-E2	UNION 3/4" C X 3/4" MFS	1	9	D318A-E3-E2	UNION 3/4" C X 3/4" MFS	1
10	D320A-F4-F4	FLUSH ELBOW 1" FTS X 3/4"	1	10	D320A-F4-F4	FLUSH ELBOW 1" FTS X 3/4"	1
11	D207A-B6-B6	COPPER TUBING 3/4" CTS X 7"	1	11	D207A-B6-B6	COPPER TUBING 3/4" CTS X 7"	1
12	D320A-F4-F4	TEE 2" C X 1 1/4" C X 1" C	1	12	D320A-F4-F4	TEE 2" C X 1 1/4" C X 1" C	1
13	D317A-E3-E2	ADAPTER 2" C X 2" MFS	1	13	D317A-E3-E2	ADAPTER 2" C X 2" MFS	1
14	D2706	Y-STRAINER 2" IPS	1	14	D2706	Y-STRAINER 2" IPS	1
15	D314F-F2-D2	NIPPLE CLOSE 2" IPS	1	15	D314F-F2-D2	NIPPLE CLOSE 2" IPS	1
16	D2707	BALL VALVE 2" IPS	1	16	D2707	BALL VALVE 2" IPS	1
17	D207A-B6-B6	COPPER TUBING 2" CTS X 8"	1	17	D207A-B6-B6	COPPER TUBING 2" CTS X 8"	1
18	D318A-E3-E4	90° STREET EL 1 1/4" X 1 1/4" FTS	1	18	D318A-E3-E4	90° STREET EL 1 1/4" X 1 1/4" FTS	1
19	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 5 1/4"	1	19	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 5 1/4"	1
20	D318A-E3-E3	UNION 1 1/4" C X 1 1/4" C	2	20	D318A-E3-E3	UNION 1 1/4" C X 1 1/4" C	2
21	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 2 1/2"	1	21	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 2 1/2"	1
22	D320A-F4-F4	TEE 1 1/4" C X 3/4" C X 1 1/4" C	1	22	D320A-F4-F4	TEE 1 1/4" C X 3/4" C X 1 1/4" C	1
23	D317A-E3-E2	ADAPTER 1 1/4" FTS X 1 1/4" MFS	1	23	D317A-E3-E2	ADAPTER 1 1/4" FTS X 1 1/4" MFS	1
24	D2470	SOLENOID VALVE 1 1/4" IPS	1	24	D2470	SOLENOID VALVE 1 1/4" IPS	1
25	D314F-F2-D2	NIPPLE 1 1/4" IPS X 2	1	25	D314F-F2-D2	NIPPLE 1 1/4" IPS X 2	1
26	D318A-E3-E4	90° ELBOW 1 1/4" C X 1 1/4" FIPS	1	26	D318A-E3-E4	90° ELBOW 1 1/4" C X 1 1/4" FIPS	1
27	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 3	1	27	D207A-B6-B6	COPPER TUBING 1 1/4" CTS X 3	1
28	D317A-E3-F1	ADAPTER 1 1/4" C X 1" FIPS	1	28	D317A-E3-F1	ADAPTER 1 1/4" C X 1" FIPS	1
29	D207A-B6-B6	COPPER TUBING 3/4" CTS X 24	1**	29	D207A-B6-B6	COPPER TUBING 3/4" CTS X 24	1**
30	D318A-E3-E2	COPPER UNION 3/4" C X 3/4" MFS	2	30	D318A-E3-E2	COPPER UNION 3/4" C X 3/4" MFS	2

TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

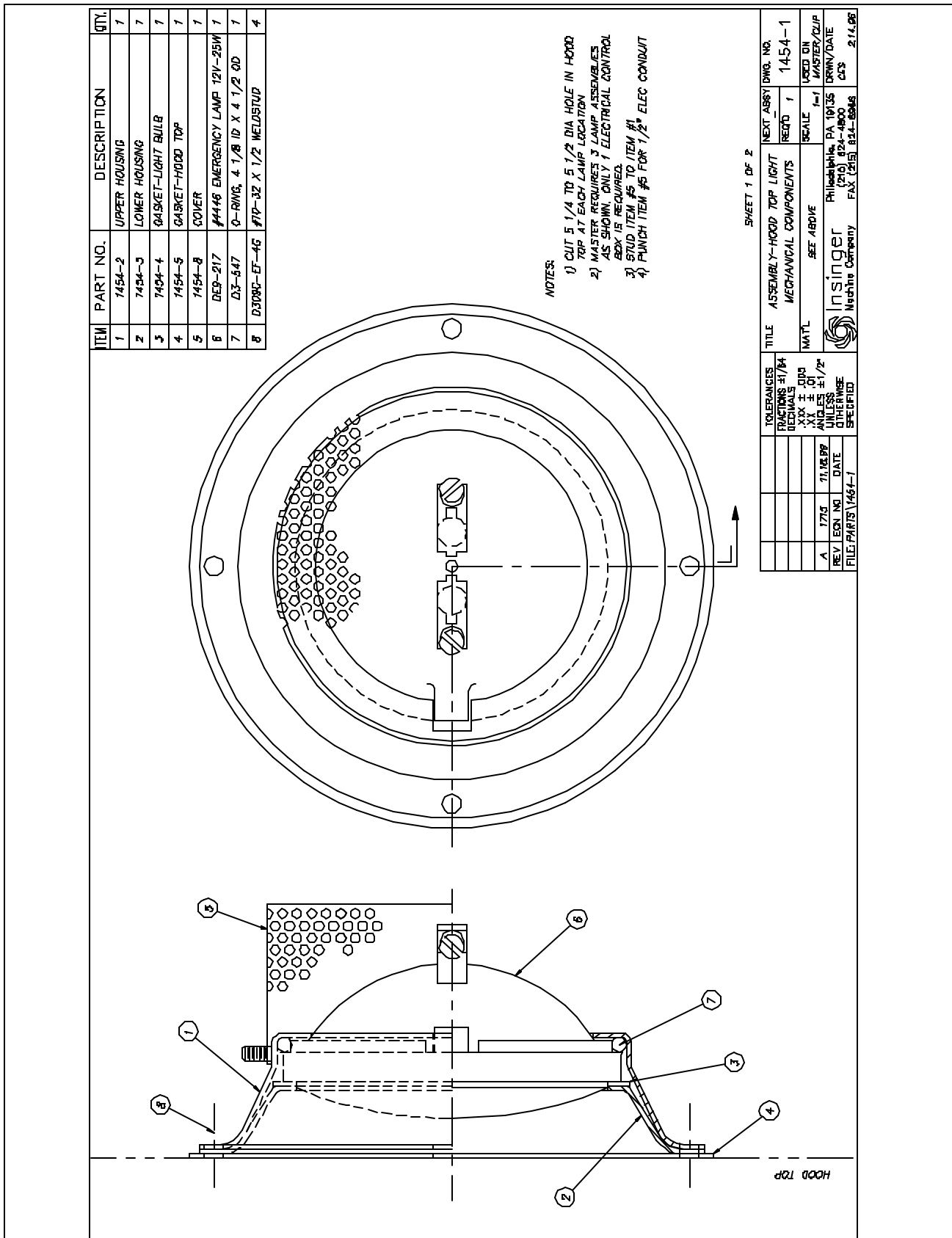
TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

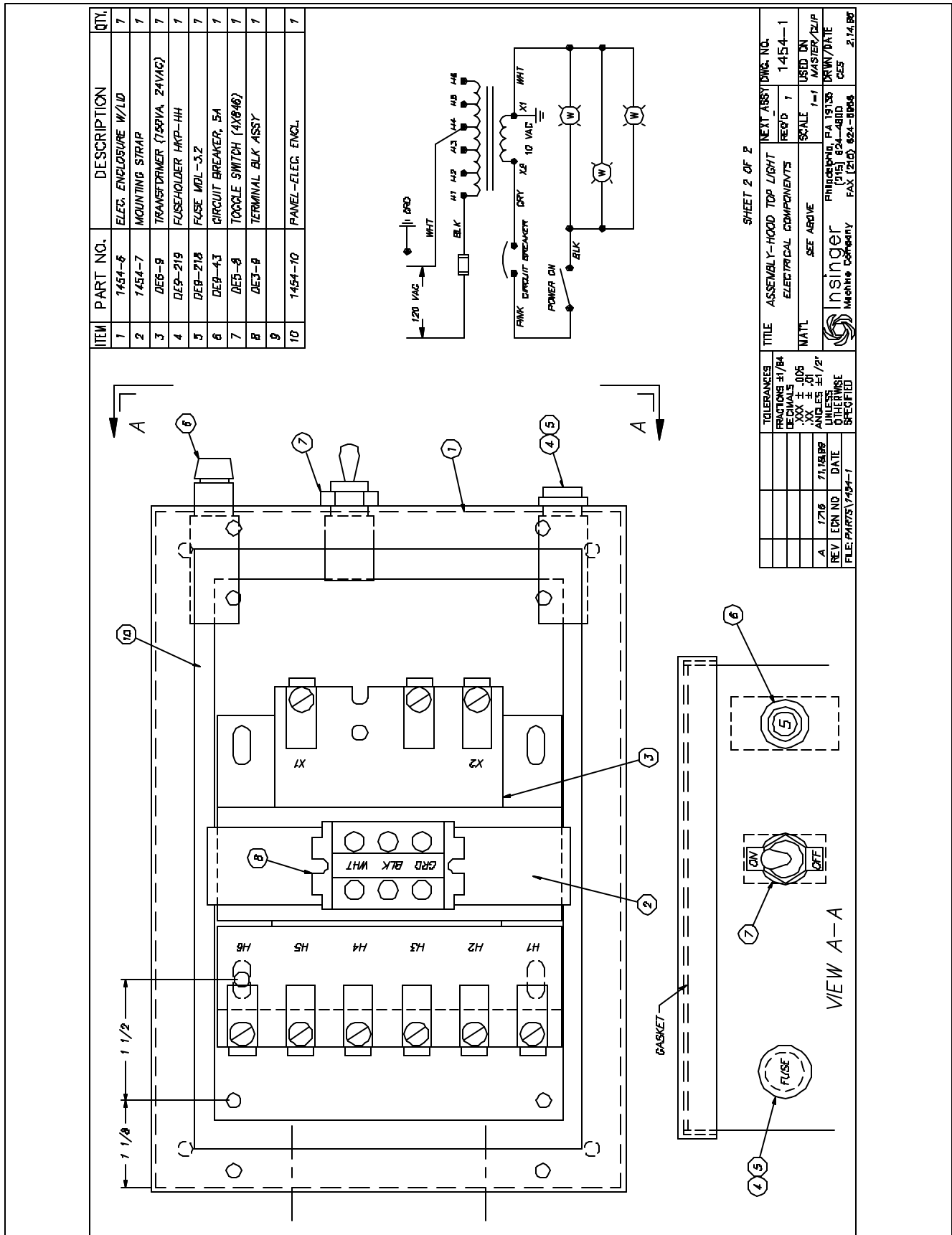
TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

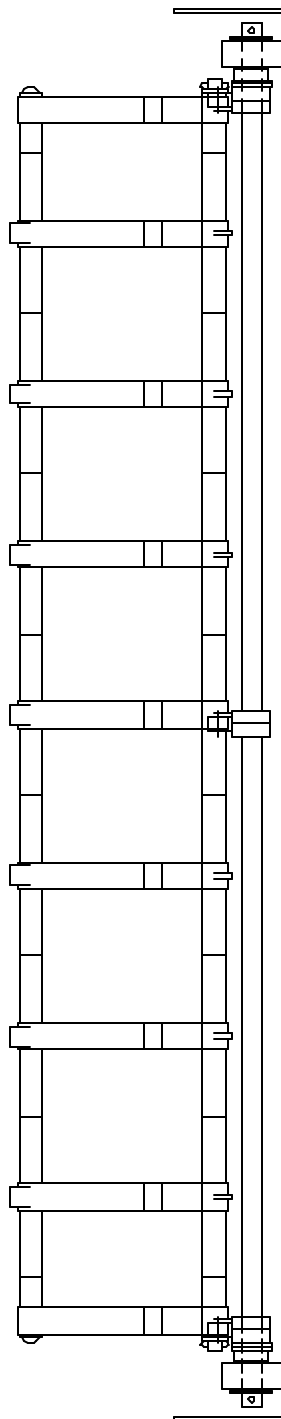
TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				

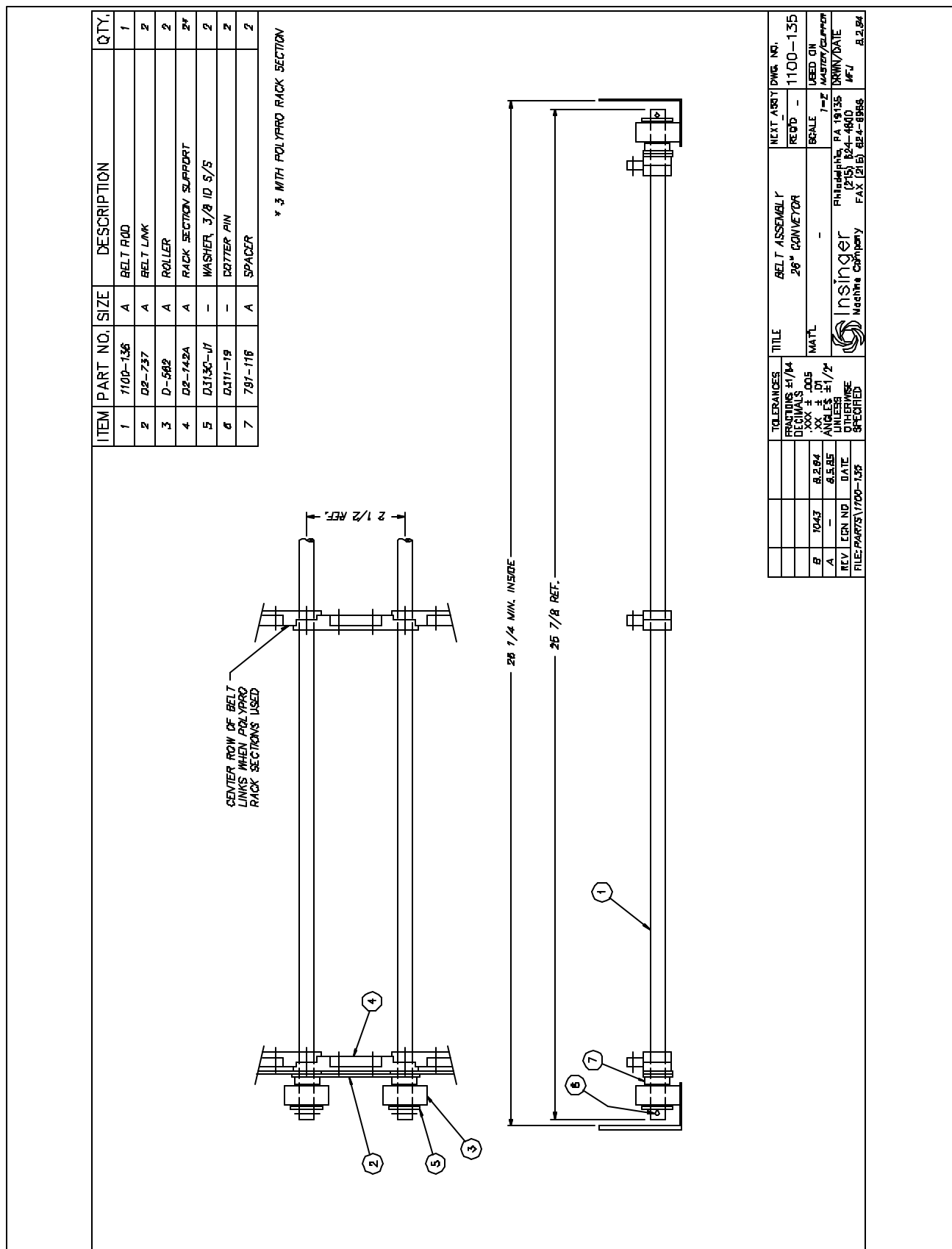
TITLE	STEAM PIPING	WASH & RINSE TANKS	SCALE	USED ON	CLIPPER/MASTER	DATE
J. 1023	3.12.02	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
H. 1069	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
G. 1066	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
F. 1060	20.01	20.01	XXX ± .005	XX ± .01	XX ± .01	XX ± .01
REV	ECN NO.	DATE	UNLESS OTHERWISE SPECIFIED			
FILE	PARTS	1100-314				



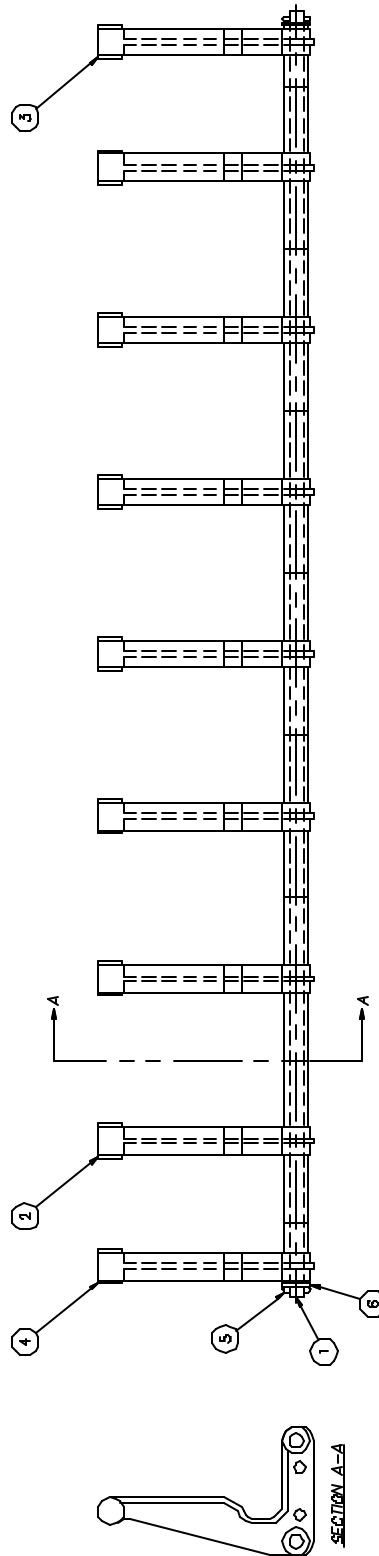




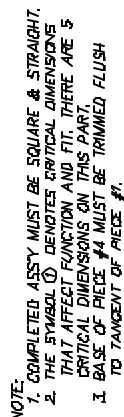
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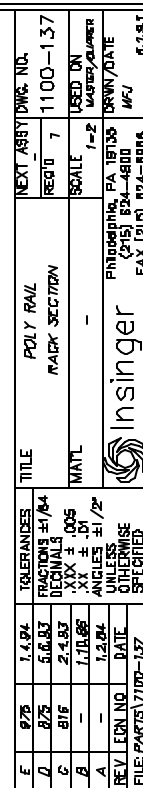


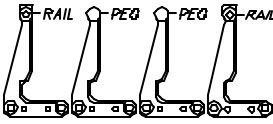
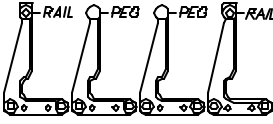
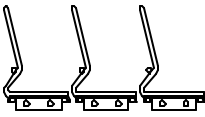
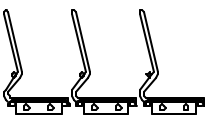
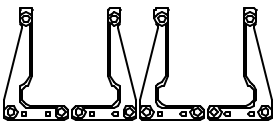
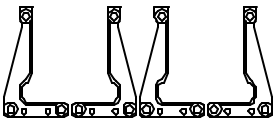
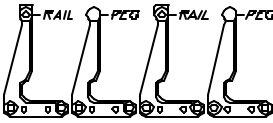
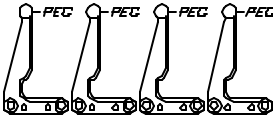
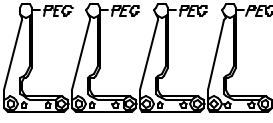
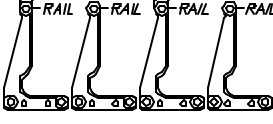
ITEM	PART NO.	SIZE	DESCRIPTION	QTY.
1	1100-138	A	RACK SECTION ROD, LOWER	2
2	D2-538B	A	PEG	7
3	D2-538J	A	END PEG	1
4	D2-538K	A	END PEG	1
5	D2-852	A	ROD FIN	2
6	D2-738	A	RACK SECTION PLATE	2



TOLERANCES		TITLE		NEXT ASSY DWG. NO.	
FRACTIONS	±1/64	RACK SECTION		REPT	1
DECIMALS	.XXX ± .005	MAY 1		SCALE	1"=2'
ANGLES	±1/2°	MAY 1		USED ON	MAINTENANCE
REV	EDN NO	DATE		DRAWN/DAT	
FILE:PARTS\1100-138				PHILADELPHIA, PA 19135	
				(215) 924-4800	
				FAX (215) 924-6900	
				E. 7.83	





FULL ASSY	DESCRIPTION	BELT ASSY (LESS RACK SECTIONS)	RACK SECTION(S)	NEXT ASSY DWG. NO.		TITLE	TOLERANCES		FRACCTIONS ±1/64	DECIMALS ±.005	ANGLES ±1/2°	UNLESS OTHERWISE SPECIFIED
				REQD	1100-380		ASSEMBLIES	MATL				
A	STND 26" WIDE POLYPRO RACK SECTIONS	1100-135	(1) 1100-137 RAIL (2) 1100-138 PEG 									
B	STND 31" WIDE POLYPRO RACK SECTIONS	1426-10	(1) 1426-11 RAIL (2) 1426-12 PEG 									
C	STND 26" WIDE S/S RACK SECTIONS	1100-135	901-79 									
D	STND 31" WIDE S/S RACK SECTIONS	1426-10	1426-74 									
E	SPECIAL 26" WIDE POLYPRO RACK SECTIONS "BACK TO BACK" OMNI & TIVOLI TRAYS	1100-135	ALL 1100-137 RAILS 									
F	SPECIAL 31" WIDE POLYPRO RACK SECTIONS "BACK TO BACK" OMNI & TIVOLI TRAYS	1426-10	ALL 1426-11 RAILS 									
G	SPECIAL 26" WIDE POLYPRO RACK SECTIONS	1100-135	(1) 1100-137 RAIL (1) 1100-138 PEG 									
H	SPECIAL 26" WIDE POLYPRO RACK SECTIONS	1100-135	ALL 1100-139 PEG 									
J	SPECIAL 31" WIDE POLYPRO RACK SECTIONS	1426-10	ALL 1426-12 PEG 									
K	SPECIAL 26" WIDE POLYPRO RACK SECTIONS (TEHACHAPI CO)	1100-135	ALL 1100-137 RAIL 									

PHILADELPHIA, PA 19135
 (215) 824-4800
 FAX (215) 824-8868
 Insinger
 11.28.02



6245 State Road
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800.344.4802
215.624.4800
Fax 215.624.6966