

# **Drum Unloader**

## **S-Drum 200L**

**Manual Number: MM119**

**Release Date: 6/2014**

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# Declaration of Conformity

(According to EN 45014)



**Manufacturer:**

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Navarra, Spai

*declares that the product:*

**Product Name:**

Drum Unloader  
S-Drum 200L

complies with the following Council Directives:

**Safety of Machinery:**

2006/42/EC

**Low Voltage Equipment:**

2006/95/EC

**EMC:**

2004/108/EC

*and conforms to the following standards:*

**Safety:**

EN60204-1:2006  
EN13849-1

**Risk:**

EN14121-1:2007

**EMC Emissions:**

EN61000-6-4:2007  
EN61000-4-2

**EMC Immunity:**

EN61000-6-2:2005  
EN61000-4-3  
EN61000-4-4  
EN61000-4-5  
EN61000-4-6  
EN61000-4-8  
EN61000-4-11

**Place and Date:**

Cincinnati, Ohio USA  
CE Mark first fixed 2006

**Signature:**

David H. Swedes,  
Director of Engineering &  
Manufacturing

This Declaration of Conformity has been generated electronically and is legally binding without signature



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# TABLE OF CONTENTS

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<b>Section 1 - Introduction</b> .....	<b>1-1</b>
<i>Description</i> .....	1-1
<i>Nameplate</i> .....	1-2
<i>S Number Configuration</i> .....	1-2
<b>Section 2 - Safety and Use</b> .....	<b>2-1</b>
<i>Read Thoroughly Before Handling Equipment</i> .....	2-1
<i>Symbols</i> .....	2-1
<i>Owner Responsibilities</i> .....	2-3
<i>Limitations of Use</i> .....	2-4
<i>Installation/Startup/Use Safety Information</i> .....	2-4
<i>Shut Down Safety Information</i> .....	2-5
<i>Hot-Melt-Specific, General Safety Information</i> .....	2-6
What to Do if Contact with Hot Adhesive Occurs .....	2-7
What to Do if Inhalation of Adhesive Fumes Occurs .....	2-7
What to Do if Adhesive-Related Fire or Explosion Occurs .....	2-8
<i>Hose Safety Information</i> .....	2-9
<i>System-Specific Safety Information</i> .....	2-10
<b>Section 3 - Basic Features</b> .....	<b>3-1</b>
<i>Overview</i> .....	3-1
<i>Base Plate</i> .....	3-3
<i>Electrical Cabinet</i> .....	3-4
<i>Main Power Disconnect</i> .....	3-5
<i>Main Air Inlet</i> .....	3-5
<i>Air Pressure Regulators</i> .....	3-5
<i>Pneumatic Cylinders</i> .....	3-5
<i>Cylinder Brace</i> .....	3-5
<i>Platens</i> .....	3-6
<i>Bleed Valve</i> .....	3-7
<i>Bleed Valve Drip Tray</i> .....	3-7
<i>Pressure Relief Valves</i> .....	3-7
<i>Platen Drip Tray</i> .....	3-7
<i>Pump</i> .....	3-7
<i>Motor</i> .....	3-7
<i>Proximity Switches</i> .....	3-7
<i>Hose Support</i> .....	3-7
<i>Hose Junction Box</i> .....	3-7
<i>Drum Clamp</i> .....	3-7
<i>Vent Hood (Optional)</i> .....	3-7
<i>Nameplate</i> .....	3-8

<b>Section 4 - Installation .....</b>	<b>4-1</b>
<i>Transport .....</i>	<i>4-1</i>
<i>Choosing a Location .....</i>	<i>4-1</i>
<i>Mounting Footprint .....</i>	<i>4-2</i>
<i>Installation Kit .....</i>	<i>4-2</i>
<i>Routing Low-Voltage Leads .....</i>	<i>4-3</i>
<i>Connecting the Electrical Power .....</i>	<i>4-3</i>
<i>VFD Board - Electrical Cabinet/Terminal Locations .....</i>	<i>4-6</i>
<i>Connecting the Air .....</i>	<i>4-8</i>
<i>Adjusting the Proximity Switches .....</i>	<i>4-9</i>
<i>Connecting the Hoses .....</i>	<i>4-11</i>
<i>Connecting the Hot Melt Hoses to the Applicators .....</i>	<i>4-14</i>
<i>Customer Connections .....</i>	<i>4-16</i>
<i>Vent Hood .....</i>	<i>4-17</i>
<b>Section 5 – Setup .....</b>	<b>5-1</b>
<i>Control Panel .....</i>	<i>5-1</i>
<i>Power On/Off and Standby Mode .....</i>	<i>5-3</i>
<i>Display Adjustment .....</i>	<i>5-4</i>
<i>User Interface .....</i>	<i>5-6</i>
<i>Navigation .....</i>	<i>5-6</i>
<i>Memory Storage .....</i>	<i>5-6</i>
<i>Editing .....</i>	<i>5-6</i>
<i>Thumbwheel vs. Single Digit Edit .....</i>	<i>5-7</i>
<i>Entering Passwords .....</i>	<i>5-8</i>
<i>Set Language .....</i>	<i>5-9</i>
<i>Set Temperature Units .....</i>	<i>5-11</i>
<i>Programming Temperatures .....</i>	<i>5-12</i>
<i>Temperature Screens .....</i>	<i>5-12</i>
<i>Platen Temperature .....</i>	<i>5-13</i>
<i>Hose/Valve Temperature .....</i>	<i>5-13</i>
<i>System/Pump Ready Temperature Offset .....</i>	<i>5-15</i>
<i>Ready Delay Time .....</i>	<i>5-16</i>
<i>Over Temperature Alarm .....</i>	<i>5-18</i>
<i>Under Temperature Alarm .....</i>	<i>5-19</i>
<i>Maximum Temperature .....</i>	<i>5-20</i>
<i>Beacon/Alarm Setup .....</i>	<i>5-21</i>
<i>Beacon 2 .....</i>	<i>5-22</i>
<i>Automatic Pump Mode .....</i>	<i>5-23</i>
<i>Level Sensor Setup .....</i>	<i>5-24</i>
<i>Internal Level</i>	
<i>External Level .....</i>	<i>5-24</i>
<i>Filter Change Timer .....</i>	<i>5-24</i>
<i>Clock and 7-Day Timer .....</i>	<i>5-25</i>

<i>Set Day and Time</i> .....	5-25
<i>Shift Times/Setback Times</i> .....	5-26
<i>Programming Shifts</i> .....	5-26
<i>Moving Through the Shift Time/Day Screens</i> .....	5-28
<i>Diagnostics</i> .....	5-30
<i>Setback</i> .....	5-31
<i>Setback Temperature</i> .....	5-31
<i>Automatic Setback Timeout</i> .....	5-32
<i>Startup Setup</i> .....	5-33
<i>Sequential Start – Hose</i> .....	5-33
<i>Sequential Start – Valve</i> .....	5-34
<i>History</i> .....	5-35
<i>User Inputs and Outputs</i> .....	5-36
<i>Configuration</i> .....	5-37
<i>Number of Hose Outlets</i> .....	5-37
<i>Auxiliary I/O</i> .....	5-37
<i>Number of Pumps</i> .....	5-38
<i>Gramage Enable</i> .....	5-38
<i>RTD Type Selection</i> .....	5-38
<i>Pump Setup Menu</i> .....	5-39
<i>Encoder Setup Menu</i> .....	5-41
<i>PID Setup Menu</i> .....	5-41
<i>PID Settings</i> .....	5-41
<i>AutoTune Feature</i> .....	5-42
<i>Initialize Screen</i> .....	5-43
<i>Restoring Factory Default Settings</i> .....	5-43
<i>Adjusting the Pressure Control Valve</i> .....	5-44
<i>Adjusting the Single-Stage Relief Valve</i> .....	5-44
<i>Fixed</i> .....	5-45
<i>Gramage Feature</i> .....	5-46
<b>Section 6 - Operation</b> .....	<b>6-1</b>
<i>Unit Startup</i> .....	6-1
<i>Raising the Platen</i> .....	6-3
<i>Changing the Drum</i> .....	6-4
<i>Lowering the Platen</i> .....	6-4
<b>Section 7 – Maintenance</b> .....	<b>7-1</b>
<i>General</i> .....	7-1
<i>Cleaning the Exterior of the Unit</i> .....	7-1
<i>Electrical Cabinet Maintenance</i> .....	7-1
<i>Pneumatic System Maintenance</i> .....	7-2
<i>Platen Maintenance</i> .....	7-4
<i>Bleed Valve Maintenance</i> .....	7-4

*Platen Drip Tray Maintenance* ..... 7-4  
*Changing the Adhesive* ..... 7-5  
*Flushing the System* ..... 7-5  
*Parts Replacement*..... 7-6  
*Changing Fuses* ..... 7-7

**Section 8 - Troubleshooting and Repair ..... 8-1**  
*Troubleshooting* ..... 8-1  
*Repair* ..... 8-4  
*Replacing the Pump* ..... 8-4  
*Replacing the Motor* ..... 8-4  
*Replacing the Pressure Relief Valve* ..... 8-6  
*Replacing the*  
    *Blow-off Valve* ..... 8-7  
*Cleaning the Bleed Valve* ..... 8-8  
*Replacing the Platen O-ring* ..... 8-9  
*Replacing the Beacon Light Bulb* ..... 8-9

**Section 9 - Specifications ..... 9-1**  
*General* ..... 9-1  
*Dimensions - S-Drum* ..... 9-2

**Section 10 - Part Number List ..... 10-1**  
*How to Order Parts* ..... 10-1  
*USA:* ..... 10-1  
*England:* ..... 10-1  
*Germany:* ..... 10-1  
*Spain:* ..... 10-1  
*S-Drum, Finned Platen (776XX601)* ..... 10-2  
*Electrical Cabinet, Finned Platen (026XX336)* ..... 10-13

**Section 11 - Warranty ..... 11-1**  
*Warranty Information* ..... 11-1  
*Cold Glue Equipment and Electronic Controls* ..... 11-1  
*Hot Melt Units, Hoses, Valves, Guns, and Related Equipment* ..... 11-1

**Section 12 - Service ..... 12-1**

**Appendix A - Password Levels ..... A-1**

**Appendix B - Power Requirements ..... B-1**  
    *System Power Requirement Calculation - S-Drum 200L Units* ..... B-1

## **Appendix C - Instruction Sheets for Option Kits ..... C-1**



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# SECTION 1 - INTRODUCTION

---

ValcoMelton, a division of Valco Cincinnati, Inc., has prepared this manual as an aid for installing, operating, and servicing the S-DRUM 200L hot melt unit. It also contains a list of part numbers for replacement parts. If you need more information, contact your ValcoMelton representative.

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## Description

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The S-DRUM 200L hot melt unit is a high-volume system designed to melt and pump thermoplastic adhesives. The S-DRUM 200L unit features a precision electronic temperature control, a digital multi-zone temperature display, a variable-speed electric motor-driven gear pump, and an adjustable pressure control.

Features and capabilities include:

- Precision electronic temperature control
- Capacity of up to four hoses and guns
- Positive displacement electric motor-driven gear pump
- Adjustable pressure control
- Integrated over-temperature protection
- User selectable inputs and outputs
- Variable frequency drive (VFD)
- Accepts encoder or tachometer inputs for Variable Speed Units

Other options are available. See “S Number Configuration,” in this section, or the “Parts List” section, for additional information.

See the “Schematics” section for wiring and pneumatic schematics.

## Nameplate

The nameplate on the side of the unit identifies the unit as well as key information. This information includes the part number, serial number, operating voltage, maximum current, number of phases and the frequency. The part number, operating voltage and maximum current will vary depending on the platen type and operating voltage.

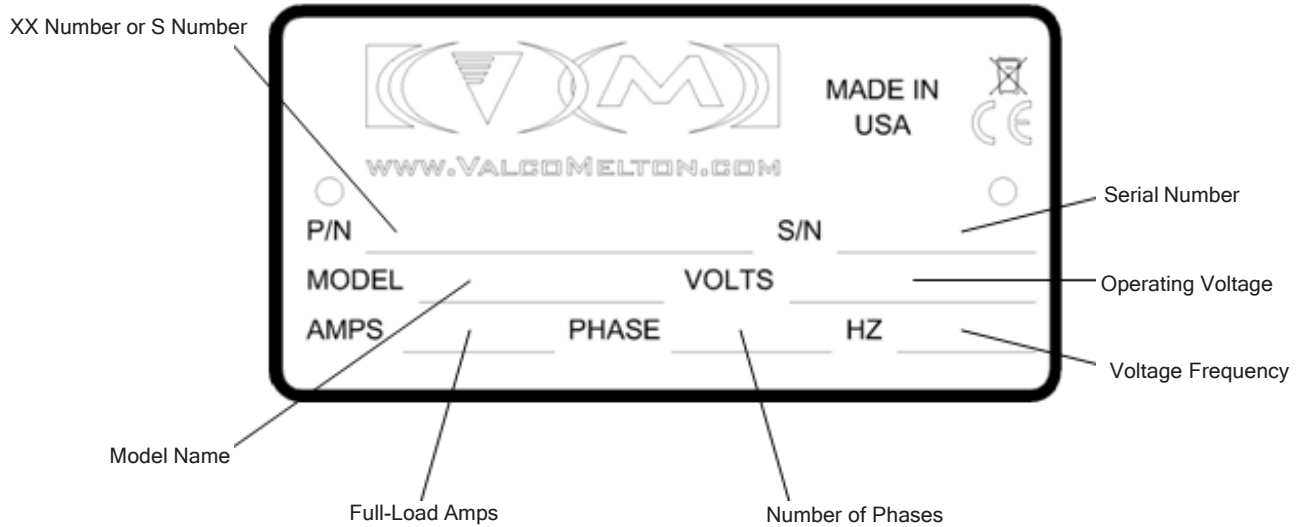
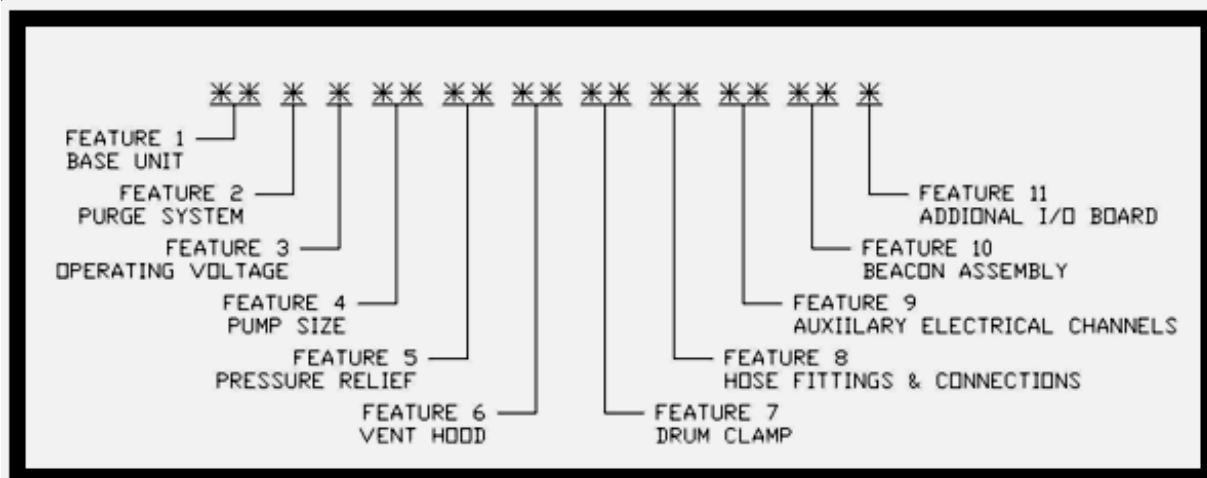


Figure 1-1. Nameplate Information

## S Number Configuration

The S number is used to configure the S-Drum hot melt unit to meet specific customer needs. All options are add-ons to the base unit assembly and as a result most of the options can be field installed. All units ordered using the S number configuration will have the final selection number engraved on the nameplate.

The base unit assemblies have an operating voltage of 380VAC + N, a 40 cc/rev pump, a manual pressure relief valve, the appropriate drum clamp (depending on platen type), one #12 JIC hose fitting and the pump enable input.



S Number Configuration -  
Continued

Selection Number – S-Drum Series Units				
UNIT CODE	CODE	DESCRIPTION	CODE	DESCRIPTION
SDRUM		Base unit prefix		
Feature 1 Base Unit	FN	Finned platen	SP	Smooth platen w/purge manifold
	SN	Smooth platen		
Feature 2 Purge System*	0	None	1	Purge Tank, compatible connectors
	2	Purge Tank, Latching connectors		
Feature 3 Operating Voltage	J**	380V 3P + Neutral	N	480V 3P 36 kVA, finned platen
	X	480V 3P 24 kVA, smooth platen		
Feature 4 Pump Size	F1	10 cc/rev pump; Finned platen	F2	15 cc/rev pump; Finned platen
	F3	30 cc/rev pump; Finned platen	F4**	40 cc/rev pump; Finned platen
	S1	10 cc/rev pump; Smooth platen	S2	15 cc/rev pump; Smooth platen
	S3	30 cc/rev pump; Smooth platen	S4	40 cc/rev pump; Smooth platen
Feature 5 Pressure Relief	00**	Manual		
Feature 6 Vent Hood	00	None	YY	Vent hood included
Feature 7 Drum Clamp***	BU	As specified in base unit	MM	Metal drum clamp, finned platen
	FF	Fiber drum clamp, smooth platen		
Feature 8 Hose Fittings and Connections	N1**	#12 fitting, 1 hose, NC	L1	#12 fitting, 1 hose, Latching
	N2	#12 fitting, 2 hoses, NC	L2	#12 fitting, 2 hoses, Latching
	N3	2 x #12, 1 x #8, 3 hoses, NC	L3	2 x #12, 1 x #8, 3 hoses, Latching
	N4	2 x #12, 2 x #8, 4 hoses, NC	L4	2 x #12, 2 x #8, 4 hoses, Latching
	N5	#16 fitting, 1 hose, NC	L5	#16 fitting, 1 hose, Latching
	N6	#16 fitting, 2 hoses, NC	L6	#16 fitting, 2 hoses, Latching
	N7	2 x #16, 1 x #8, 3 hoses, NC	L7	2 x #16, 1 x #8, 3 hoses, Latching
	N8	2 x #16, 2 x #8, 4 hoses, NC	L8	2 x #16, 2 x #8, 4 hoses, Latching
	NA	#8 fitting, 1 hose, NC	LA	#8 fitting, 1 hose, Latching
	NB	#8 fitting, 2 hoses, NC	LB	#8 fitting, 2 hoses, Latching
	NC	#8 fitting, 3 hoses, NC	LC	#8 fitting, 3 hoses, Latching
	ND	#8 fitting, 4 hoses, NC	LD	#8 fitting, 4 hoses, Latching
Feature 9 Aux. Electrical Channels	00	None		
Feature 10 Beacon Assembly	00	None	B1	Beacon assembly, 1 light
	B3	Beacon assembly, 3 lights & siren		
Feature 11 External I/O	1**	Pump Enable		
	04	Four Programmable Inputs/Outputs		
	08	Eight Programmable Inputs/Outputs		

\* The purge tank can only be installed with units that have the purge manifold.  
The purge system consumes one electrical hose connection.

\*\* This option comes with the base unit.

\*\*\* The Finned Platen Base Unit includes the Fiber Drum Clamp, and the Smooth Platen Base Unit includes the Metal Drum Clamp. Specify option "BU" for the drum clamp supplied with the base unit.

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# SECTION 2 - SAFETY AND USE

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## Read Thoroughly Before Handling Equipment

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### WARNING!



Read and follow all safety precautions, warnings, cautions, and other recommendations in this manual. OTHERWISE, DEATH, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

Read this entire section before handling the equipment.

---

## Symbols

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The following symbols may be used on the equipment and/or in this manual.



This symbol represents a **Caution** or a **Warning**. *Cautions* draw special attention to anything that could damage equipment or cause the loss of data. *Warnings* draw special attention to anything that could injure or kill the reader. Both Cautions and Warnings are placed before the step they apply to.



This symbol represents a **Hot Surface**.



This symbol represents a **Puncture Risk**. It is usually used in regard to nozzle cleaning appliances and other sharp instruments that can cause puncture wounds and risk exposure to bloodborne pathogens and other debris.



This symbol means that **Working Gloves** are required.



This symbol means that **Goggles** are required.



This symbol indicates a **Shock Hazard**. There is a presence of non-insulated dangerous voltage within the product's enclosure. This voltage may cause electrical shock or fire.

Continued next page

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*Symbols - Continued*

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This symbol indicates the need to **Unplug/Disconnect All Power Sources** and to let them de-energize before attempting any type of work or maintenance. Remember that there can still be energy in equipment, cords, and wires even when unplugged/disconnected.



This symbol indicates the need to **Lock Out All Power Sources** and to let them de-energize before attempting any type of work or maintenance. If power is not locked out, the person working on the equipment may be injured or killed if someone unknowingly switches on the power to the equipment.



This symbol indicates a **Note**. Notes point out something of special interest or importance to the reader. They give tips, hints, and information in addition to what is necessary for the step preceding it.

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## Owner Responsibilities

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The owner of the equipment is under obligation to manage all safety information. Some examples include:

- Examine all safety materials and documents as well as jurisdictional laws and make certain all laws, recommendations, and other safety/hazard laws, certification requirements, training, and instructions are followed and kept current.
- Maintain all safety materials including tags, labels, documents, and MSDS information. Make certain they are distinct and can be read/understood. Replace any that are dirty, worn, or unreadable.
- Make sure all personnel who will handle, install, maintain, operate, fix, and work around the equipment have ready access to the safety information, training, and equipment according to jurisdictional authorities.

The owner of the equipment is under obligation to make certain that all instructions, requirements, and jurisdictional laws are met. Some examples include:

- Make sure there are regular inspections of equipment and safety devices.
- Have regular safety drills and inspections supervised by the proper authorities.
- Provide all required safety items, first aid equipment, and training.

The owner of the equipment is under obligation to make certain that all personnel who will handle, install, maintain, operate, fix, and work around the equipment are qualified, trained, and up-to-date with all information regarding the equipment. Some examples include:

- Make sure all personnel have the proper safety training, equipment, education, and abilities necessary for the job function according to safety instructions and all jurisdictional laws and regulations.
- It is strongly advised that personnel receive first-responder medical care training in case of burns, medical emergencies, or other injuries. Training should be kept up to date.
- Make sure all personnel understand and can follow safety policies and procedures for the organization as well as for the specific equipment.
- Make sure that all personnel are consistently trained, evaluated, free of alcohol and medications that may impair judgment and reflexes, and are tested for banned substances according to jurisdictional authorities.

## Limitations of Use

Read this document and all information regarding the equipment before handling the equipment. The intended use of the equipment is stated in Section 1 of this manual.

Do not use this equipment for anything other than its intended use. Do not modify, change, or alter the equipment in any way. If you are unsure of the intended use and the limitations of use for the equipment, contact your Valco Melton Representative before handling the equipment.

## Installation/Startup/Use Safety Information

Valco Melton hot melt units, cold glue units, controllers, inspection systems and all related accessories have the following universal safety precautions (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

### WARNING!



Only qualified personnel should install the equipment. Valco Melton strongly recommends that a Valco Melton Technician install all equipment. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

### WARNING!



The equipment should be installed so that it can be turned off at a location **away** from the equipment in case of injury, electrical problems, or malfunction. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Properly route all electrical wires. Never tamper with equipment. Only use approved and correct voltage, type of current, fuses, and other power supplies. Replace worn cords, hoses, etc. immediately. FAILURE TO OBSERVE WARNING MAY RESULT IN DEATH, PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE.

### WARNING!



Poor ventilation, smoking, and open flames can cause overheated hot melt to ignite. Adequate ventilation must be provided. Smoking should be prohibited in the immediate vicinity of the molten adhesive. Open flames must be kept away from the area around molten adhesive. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

### WARNING!



Never use any Valco Melton equipment in an explosive environment. Explosive environments include, but are not limited to, solvent-based cleaners or adhesives, explosive materials, radioactive materials, etc. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Equipment will start automatically when remotely controlled by triggering devices. Be sure to disable all triggering devices, carefully release hydraulic pressure, and disconnect air pressure before servicing or working near guns, valves, and other triggered devices. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

## Shut Down Safety Information

Valco Melton hot melt units, cold glue units, controllers, inspection systems and all related accessories have the following universal safety precautions (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

### WARNING!



Purge the fluid pressure and the air pressure from the system before disconnecting/disabling any part of the system. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Disconnect and lock out all power before maintenance or other need to open the equipment. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Equipment may still be energized even if unplugged! When making adjustments or performing checkout procedures, stay clear of any moving mechanical parts and do not touch exposed electrical equipment or electrical connectors. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Disconnect/disable all mechanical and/or electrical devices that send activation signals to the gun(s), valve(s), melter pump(s), etc. This includes pattern controls, timers, input/output signals, etc. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Disable all triggering devices, relieve all residual pressure (hydraulic and air) and allow adhesive to cool before attempting to disconnect guns, hoses, valves, etc. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

### WARNING!



Never point an adhesive dispensing gun, valve, hose, air hose, or anything else at yourself or another person. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.



## Hot-Melt-Specific, General Safety Information

Valco Melton hot melt units have the following universal safety precautions **in addition to all other universal precautions previously mentioned** (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

**WARNING!**



**Never** process any polyurethane reactive (PUR) hot melt or solvent-based material in a Valco Melton unit unless you are certain that the unit is compatible and is marked "PUR"! Read all instructions and MSDS sheets carefully, following manufacturer's instructions, especially regarding heat levels. If you have any question as to the compatibility of a Valco Melton unit for PUR hot melt, call your Valco Melton Representative before attempting to use the unit for PUR or solvent-based materials. **OTHERWISE, HAZARDOUS FUMES, EXPLOSION, DEATH, OR PERSONAL INJURY COULD OCCUR.**

**WARNING!**



Keep pump cover and electrical enclosures closed except during setup, service, and checkout procedures. **OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.**

**WARNING!**



People with respiratory problems (e.g., asthma, bronchitis, etc.) should not work in the vicinity of molten adhesive. **RESPIRATORY PROBLEMS MAY BE AGGRAVATED BY THE FUMES.** Do not wear a face mask when working around molten adhesive. **THE MASK MAY TRAP THE FUMES AND DEATH OR PERSONAL INJURY COULD OCCUR.**

**WARNING!**



Keep hot melt hoses away from walkways and the moving parts of hot melt systems. **OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.**

**WARNING!**



Hot surfaces! Do not touch! Use extreme caution when refilling the unit by hand. **OTHERWISE, PERSONAL INJURY COULD OCCUR.**

**WARNING!**



Wear protective gloves and goggles at all times around all machinery, especially hot melt. **OTHERWISE, SERIOUS PERSONAL INJURY COULD OCCUR.**

**WARNING!**



Never use an open flame to heat hot melt components or adhesive. **OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.**

---

***What to Do if Contact  
with Hot Adhesive  
Occurs***

---

If hot adhesive comes in contact with the skin, do the following:

**WARNING!**



Do not attempt to remove heated hot melt adhesive from the skin. OTHERWISE, SEVERE PERSONAL INJURY AND DEATH COULD OCCUR.

1. Immediately immerse the contacted area in clean, cold water.



It is strongly recommended that a source of clean, cold water be provided near the hot melt work area.

2. Cover the affected area with a clean, wet compress and call the emergency medical response system (such as 911) immediately.
3. Watch for and treat the subject for signs of shock while waiting for professional help to arrive.

---

***What to Do if  
Inhalation of  
Adhesive Fumes  
Occurs***

---

If adhesive fumes are inhaled, immediately follow these steps:

1. Take the victim away from the immediate work area.
2. Provide victim with fresh air.
3. Call the emergency medical response system (such as 911) immediately.

---

**What to Do if  
Adhesive-Related  
Fire or Explosion  
Occurs**

---

During the heating and melting process, the surface of the adhesive will be exposed to air. The mixture of polymer fumes and air can catch fire if the hot melt is overheated.

**WARNING!**



Poor ventilation, smoking, and open flames can cause overheated hot melt to ignite. Adequate ventilation must be provided. Smoking should be prohibited in the immediate vicinity of the molten adhesive. Open flames must be kept away from the area around molten adhesive. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

**WARNING!**



Exposed arcing may ignite the fume/air mixture. Shield all electrical equipment from melt fumes to avoid exposed arcing. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

**WARNING!**



Do not use a water extinguisher to extinguish the fire! OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

If the hot melt adhesive ignites, promptly perform the following steps:

1. Sound a fire alarm.
2. Evacuate the immediate area.
3. Turn off all local electrical equipment at the source.
4. Leave the area immediately if conditions are unsafe.

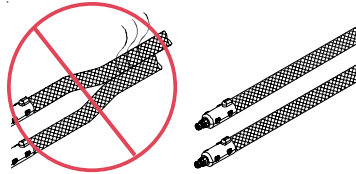
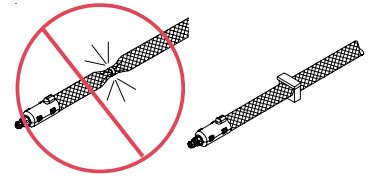
If you feel you can fight the fire **safely**, do **one** of the following:

- Smother the fire with a fire blanket.
- Aim a CO<sub>2</sub> fire extinguisher at the base of the flames.
- Aim a dry-powder fire extinguisher at the base of the flames.

## Hose Safety Information

**Do not** use bindings, wire ties, or unapproved fasteners around the hoses.

**Do** use approved wrapping (P/N 775xx827), making sure the wrapping is slightly snug but not tight.

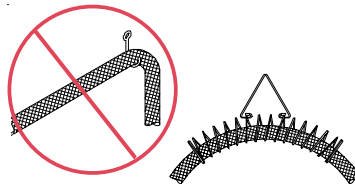
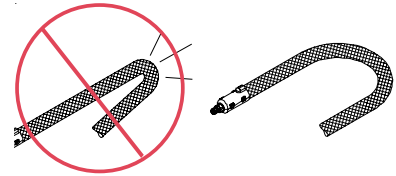


**Do not** place hoses close together.

**Do** allow at least 2 inches (5.1 cm) between hoses for proper ventilation.

**Do not** bend hoses sharply. **Do not** allow kinks or indentations in the hoses.

**Do** use a minimum bend radius of 10 inches for a 20-inch diameter coil hose.

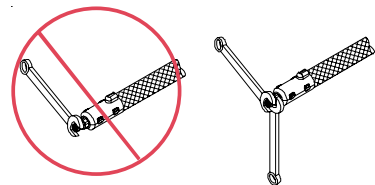


**Do not** use unapproved hooks to hang hoses. **Do not** wrap hoses over or around objects.

**Do** use a hose hanging kit (P/N 781xx827).

**Do not** use the “one handed/one wrench” technique to attach or remove hoses. **Do not** wrench on any surface other than the large hexagon swivel nuts.

**Do** use two hands and two wrenches to tighten or loosen connections on hoses. **Do** wrench only on large hexagon swivel nuts.



Hose Safety Information - Continued

		<p><b>Do not</b> allow hoses to rub against objects or to come into contact with sharp edges or points.</p>
<p><b>Do not</b> use worn, damaged, or bent hoses.</p> <p><b>Do</b> inspect all hoses regularly for damage and/or wear and replace damaged or worn hoses immediately.</p>		

## System-Specific Safety Information

This system has additional safety precautions in addition to the above:

**WARNING!**



Material fumes can be hazardous. Avoid inhalation. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR. PUR adhesive requires a vent hood.

**WARNING!**



Purge the fluid pressure before disconnecting/disabling any part of the system. If the system is not dispensing adhesive, relieve the fluid pressure by loosening the pressure relief valve completely, before turning off the pump. See "Hose Safety," above, on how to remove a hose. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

**WARNING!**



Before operating the unit, make sure the drum clamp secures the drum to the base plate. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

**WARNING!**



Never work directly under the platen. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

**WARNING!**



With the exception of the operator, personnel should stay clear of the unit during operation, due to possible adhesive spray from the bleed valve and blow-off valve. OTHERWISE, PERSONAL INJURY OR DEATH COULD OCCUR.

---

System-Specific Safety Information  
- Continued

---

**WARNING!**

The system must be operated by one person only, using both hands. OTHERWISE, PERSONAL INJURY COULD OCCUR.

**WARNING!**

Secure the system to a level floor. Failure to do so could misalign the pneumatic cylinders during operation. If this happens, call technical service. OTHERWISE, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

**WARNING!**

Make sure the bleed valve drip tray is clean, and is placed on the platen, in the appropriate location, during operation. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

**WARNING!**

In the down position, do not leave the bleed valve open, unattended. Adhesive will come out of the valve and leak into the platen assembly, causing serious damage. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

**WARNING!**

Ensure the blow-off valve shuts off right before the platen exits the drum. Adhesive will be blown around if the valve is activated outside of the drum. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

# SECTION 3 - BASIC FEATURES

## Overview

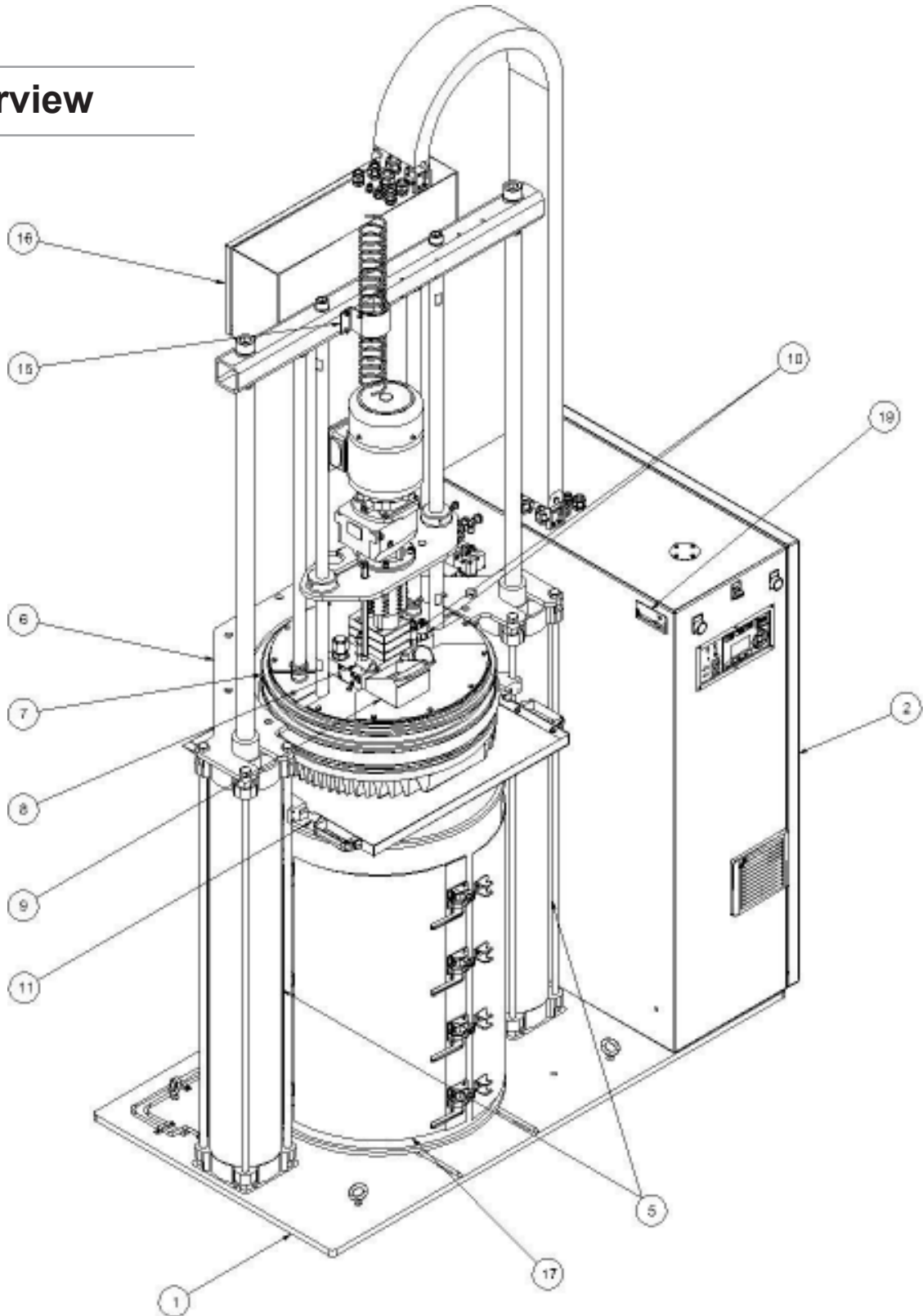


Figure 3-1. Basic Features

Overview - Continued

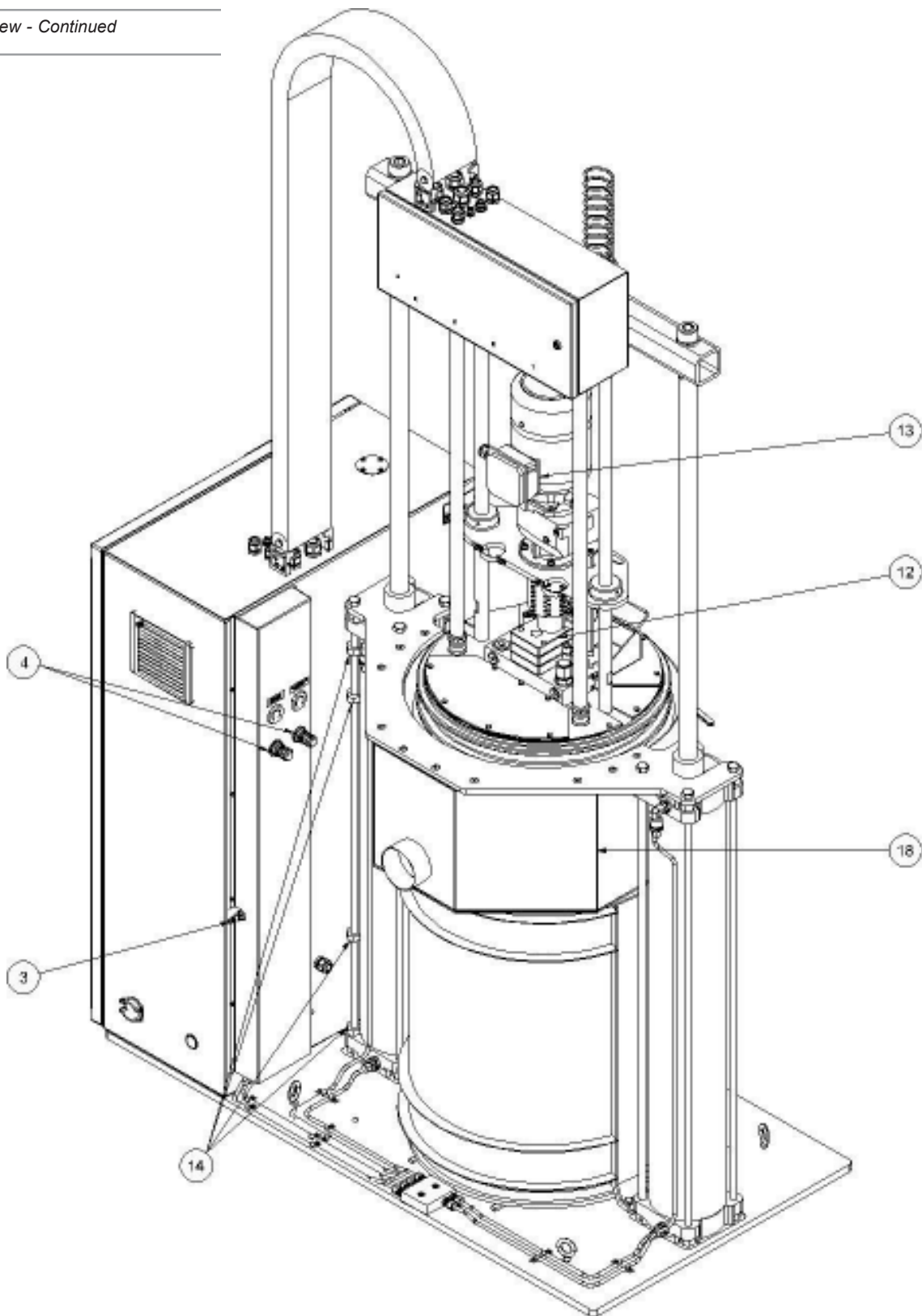


Figure 3-2. Basic Features (with optional Vent Hood)



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 Overview - Continued
 

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No.	Description
1	Base Plate
2	Electrical Cabinet
3	Main Air Inlet
4	Air Pressure Regulators
5	Pneumatic Cylinders
6	Cylinder Brace
7	Platens
8	Bleed Valve
9	Bleed Valve Drip Tray
10	Pressure Relief Valves
11	Platen Drip Tray
12	Pump
13	Motor
14	Proximity Switches
15	Hose Support
16	Hose Junction Box
17	Drum Clamp
18	Vent Hood
19	Nameplate

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## Base Plate

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The pneumatic cylinders are mounted to the base plate, which can be secured to the floor. See *Section 4 - Installation* for mounting details.

# Electrical Cabinet

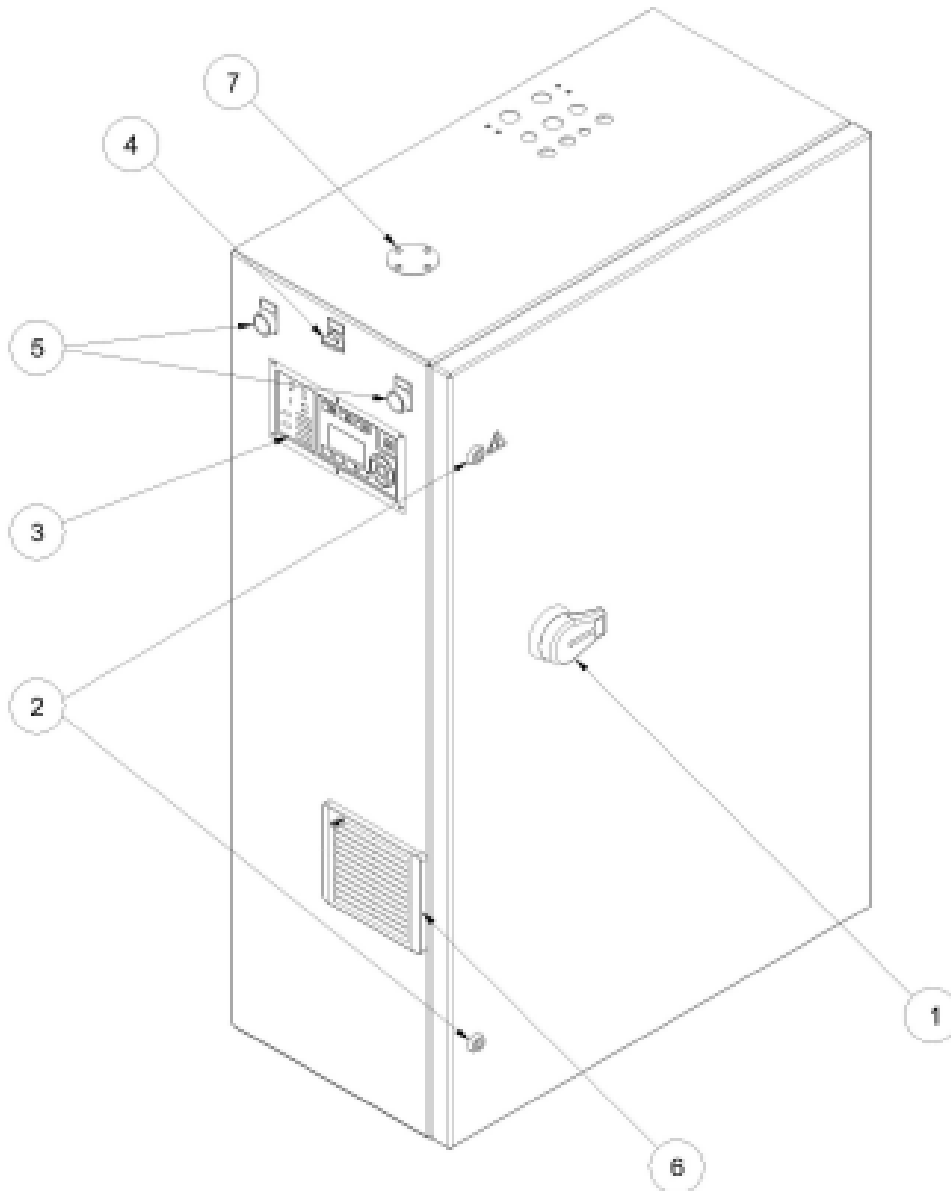



Figure 3-3. Basic Features of the Electrical Cabinet

No.	Description
1	Main Power Disconnect
2	Door Locks
3	Temperature Controller
4	Position Selector
5	Two Handed Push Buttons
6	Fan
7	Beacon Cover Plate

<b>Main Power Disconnect</b>	<p>Controls the system main power.</p> <p><b>WARNING!</b> If the main power is switched “off,” anything from the main disconnect to the incoming power is still energized.</p> 
<b>Door Locks</b>	<p>The door locks hold the electrical cabinet closed. They can be opened for installation, maintenance or repair. Only qualified personnel should be authorized to access the enclosure.</p>
<b>Temperature Controller</b>	<p>The temperature controller is used to monitor and adjust the system’s different heating zones. It is also used to control the pump and motor.</p>
<b>Position Selector</b>	<p>The selector switch is a three position switch that is used to raise, lower and lock the platen.</p>
<b>Two-Handed Push Button Control</b>	<p>The push buttons activate the solenoids controlling the pneumatic cylinders and blow-off valve. Both buttons must be pressed in order to raise and lower the platen, as well as to activate the blow-off alone.</p>
<b>Fan</b>	<p>The Cooling Fan and Exhaust Grill provide air circulation and cooling to the electrical enclosure. It must be serviced regularly. Refer to <i>Section 7 - Maintenance</i>.</p>
<b>Beacon Cover Plate</b>	<p>Covers the mounting holes for the beacon assembly. See <i>Section 5 - Setup</i> for more details.</p>
<b>Main Air Inlet</b>	<p>Customer air connection. Connect dry, non-lubricated air to the system. For added safety, an additional filter has been installed.</p>
<b>Air Pressure Regulators</b>	<p>Sets the pneumatic cylinders and blow-off valve working pressure.</p>
<b>Pneumatic Cylinders</b>	<p>The pneumatic cylinders lift and lower the platen.</p>
<b>Cylinder Brace</b>	<p>This brace is used to stabilize the cylinders and add rigidity to the system.</p>

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**Platens**

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**Platen Assembly**

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The platen assembly consists of an upper platen, a lower platen (finned platen configuration only) and a sealing o-ring.

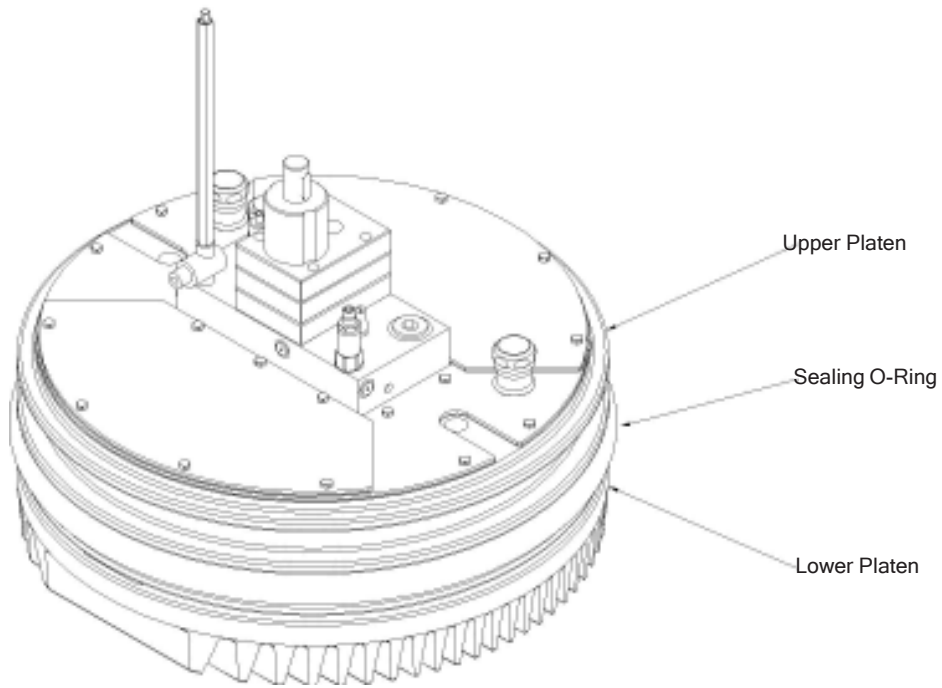


Figure 3-4. Platen Assembly Components

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**Platen Types**

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There are two types of platens, chosen depending on the application.

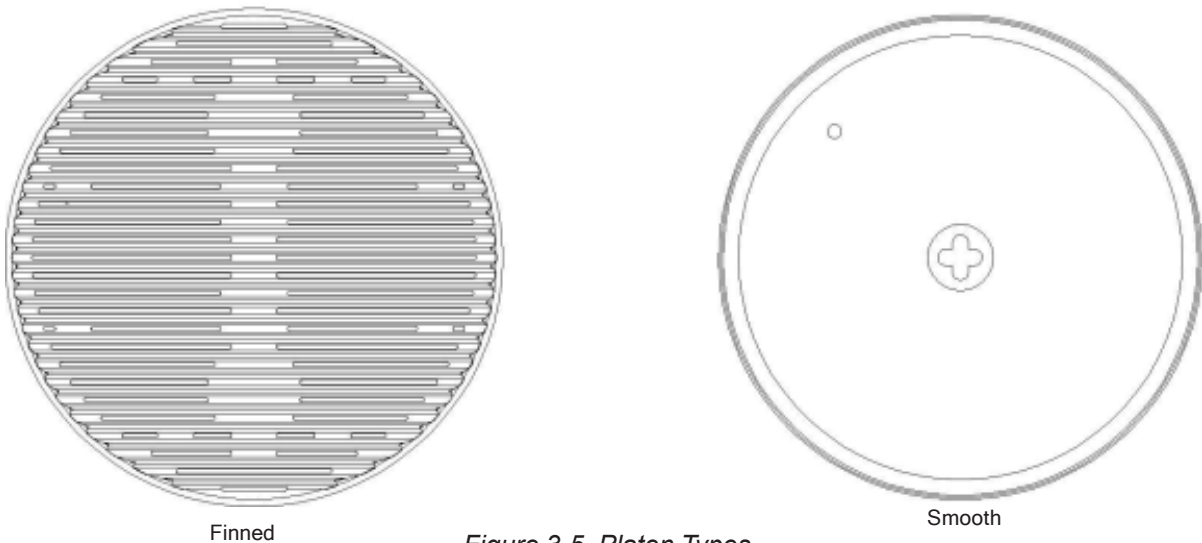




Figure 3-5. Platen Types

<b>Bleed Valve</b>	This manually operated valve is used to evacuate air from the drum as the platen is lowered into it. When the platen is being lowered into a drum, the valve must be open.
<b>Bleed Valve Drip Tray</b>	Catches the adhesive that is released while the platen is being lowered into the drum.
<b>Pressure Relief Valves</b>	There are two pressure relief valves on the manifold. The first valve is an adjustable pressure relief valve that can be manually adjusted to set the adhesive operating pressure. The factory setting is 500 psi. The second valve is a fixed pressure relief valve that limits the maximum adhesive operating pressure. The factory setting is 1500 psi. Some units may have the valves switched.
<div style="border: 1px solid gray; border-radius: 10px; padding: 5px; display: inline-block;">  The physical location of these pressure relief valves may be reversed in some units. </div>	
<p><b>WARNING!</b></p>  <p>Do not adjust the fixed pressure relief valve. This protects the system from excessive pressure buildup. OTHERWISE, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.</p>	
<b>Platen Drip Tray</b>	Catches the adhesive while the platen is in the UP position. Example: During a drum change.
<b>Pump</b>	Transfers the molten material from the drum to hoses or guns as required by the application.
<b>Motor</b>	AC gear motor that is controlled by a variable frequency drive.
<b>Proximity Switches</b>	The proximity switches control platen travel. There are four different switches: two for maximum and minimum platen travel; one for low level adhesive and; one for inside-drum activation.
<b>Hose Support</b>	The hose support is used to guide a hose or hoses from the system to the customer application. The support is used to prevent the hose from being pinched or crushed. See <i>Section 2 - Safety and Use</i> for more details concerning hose safety.
<b>Hose Junction Box</b>	The hose junction box contains wiring that connects the hose receptacles, platen heaters, motor and temperature control devices to electrical cabinet.
<b>Drum Clamp</b>	The drum clamp is designed to hold the drum in place during operation. Two drum clamps are available depending on the type of drum being used (fiber or metal).
<b>Vent Hood (Optional)</b>	The vent hood is used to remove fumes that are released during the heating process. It must be connected to a customer-supplied exhaust duct.

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**Nameplate**

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The nameplate provides more information regarding the system configuration.

Included information:

- Part number
- Serial number
- Operating voltage
- Maximum current
- Number of phases
- Frequency

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# SECTION 4 - INSTALLATION

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## Transport

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The equipment is supplied on a pallet.

Approximate dimensions: 90.7"H x 62.7"W x 32.6"D  
[2305 x 1582 x 828 mm].

Approximate weight: 1450 lbs. / 658 kg (maximum weight for the drum unloader with all of the options installed, coupled with the weight of the crate)

Remove the top and front covers to unpack.

### CAUTION!



Unpack carefully to prevent damage to the machine. Inspect the equipment for damage caused during transport.

The unit may be shipped with the cable track disconnected. The track must be reconnected prior to operation.

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## Choosing a Location

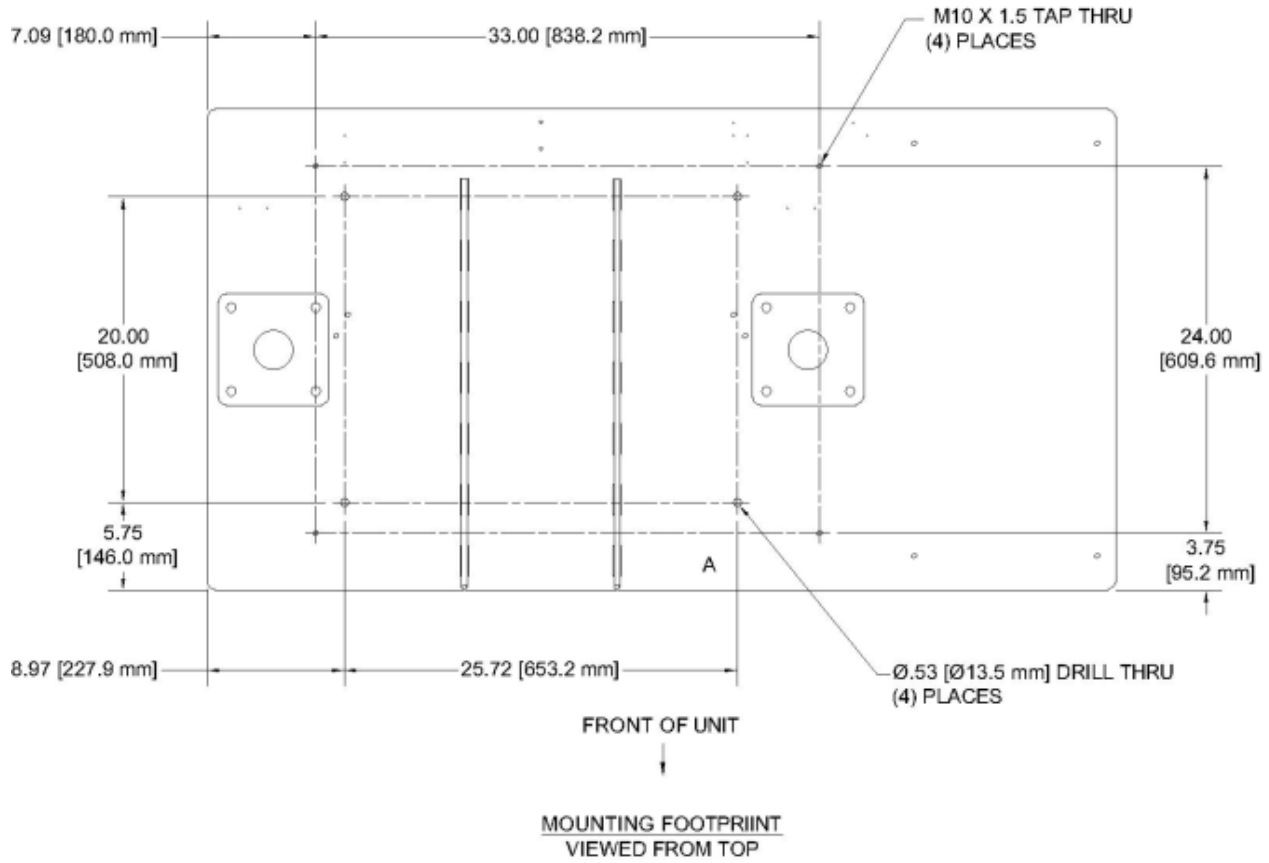
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The S-DRUM 200L hot melt unit is assembled at the factory. However, the power and the glue hoses must be connected by the customer. This section contains instructions for making the necessary connections.

While choosing a location for the unit, keep in mind that:

- Service personnel will need access to the right and back of the unit for electrical service. *See Section 9 - Specifications*, for the working profile.
- The operator needs easy access to the front of the unit.
- The unit should be screwed or bolted to a flat, level floor.
- The unit should have clearance around the outside of the case to allow air to circulate freely around it.
- The location should be near the glue station so that the glue hoses can be routed to the applicators in as straight a line as possible.
- The location for the unit should be clean. Contaminants in the adhesive causes clogging of the applicator nozzles.
- The unit should be protected from high and low ambient temperatures (<-10°C and >50°C), as well as from rapid changes in ambient temperature.
- The unit must be protected from condensate and water.
- The unit must be protected from strong vibrations.
- Avoid areas with drafts. If this is not possible, the guns will need protection, as if the temperature falls rapidly, they may not operate properly.

### Mounting Footprint



### Installation Kit

An Installation Kit is available for this unit, containing spare fuses, a copy of this manual on CD and warranty information. For details, see Section 10 - Parts List.



## Routing Low-Voltage Leads

### WARNING!



Failure to observe could result in personal injury, death, or damage to equipment.

When routing low-voltage leads, follow these guidelines:

- Do not route low-voltage leads in the same conduit as wires carrying a high-current load.
- Do not route low-voltage leads adjacent to, or across wires carrying a high-current load. If low-voltage leads must cross or run parallel to wires carrying high current, keep the leads at least 6" (152 mm) from high-current wires.
- Do not splice or solder leads.
- Trim leads to the required length. Leads should be only as long as necessary for installation.
- All wiring should be in conduits or wireways.

## Connecting the Electrical Power

### WARNING!

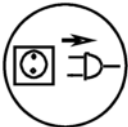


Electrical connections should be made only by experienced service personnel! Failure to observe could result in personal injury, death, or damage to equipment.

When connecting the supply of electrical power, follow these guidelines:

- Connect the unit to a "clean" supply of electrical power. Use a dedicated circuit if possible.

### WARNING!



The external power source must be turned off before connecting power to the unit! Failure to observe could result in personal injury, death, or damage to equipment.

### WARNING!



Only experienced service personnel should connect power to the unit! Failure to observe could result in personal injury, death, or damage to equipment.

The use of an earth-leakage or ground-fault power breaker is recommended with this unit. This unit must be earthed or grounded. Failure to observe could result in personal injury, death, or damage to equipment.

Connecting the Electrical Power - Continued

The S-Drum hot melt unit can be set up to use either 380VAC with Neutral or 480VAC. All types are three phase and 50/60 Hz. The maximum current ratings for the unit is dependent on the type of platen and operating voltage, see the table below.

Operating Voltage	Platen Type	
	Finned	Smooth
380VAC with Neutral	60A	40A
480VAC w/o Neutral	50A	35A

An optional transformer is required to operate at 480VAC. The transformer size depends on the type of platen.

Platen Type	Transformer	
	P/N	kVA
Finned	550XX137	36
Smooth	550XX151	24

The system should be connected via a suitable type of flexible conduit from a supply isolator and ground-fault power breaker. The supply should be clean and free from excess interference from other machines.

**WARNING!**



You **MUST** follow these steps to connect power to the unit, or personal injury and/or damage to the unit may result.

1. Open the electrical cabinet.
2. Route the power cable through the cable clamp in the back of the cabinet. The power cable must meet the minimum voltage and current requirements

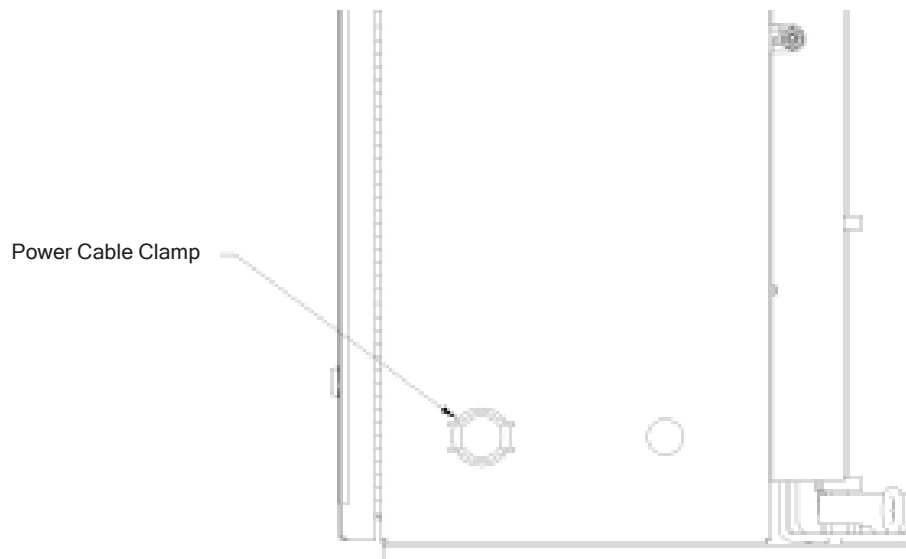


Figure 4-2. Power Cable Clamp Location, Back of the Unit

Connecting the Electrical Power - Continued

3. Connect the power cable leads to the terminals blocks as indicated below.

Incoming Electrical Service	Terminal Block Connections				
380VAC 3-phase with Neutral (4 wire service)	1L1	1L2	1L3	N	PE
480VAC 3-phase w/o Neutral (3 wire service)	R	S	T		PE

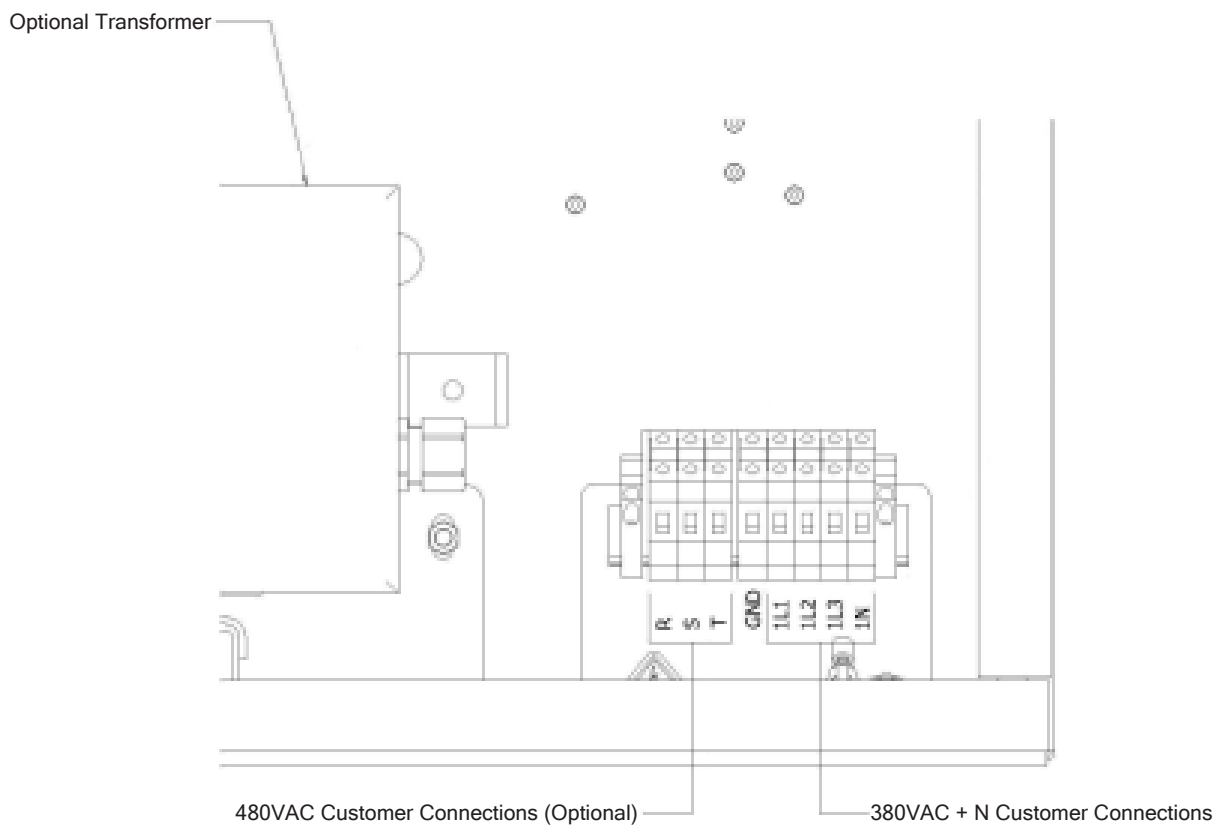


Figure 4-3. Customer Connections, Main Power

4. Verify that all connectors are fully seated and the terminal block screws are secure.
5. Close the electrical cabinet.

# VFD Board - Electrical Cabinet/Terminal Locations

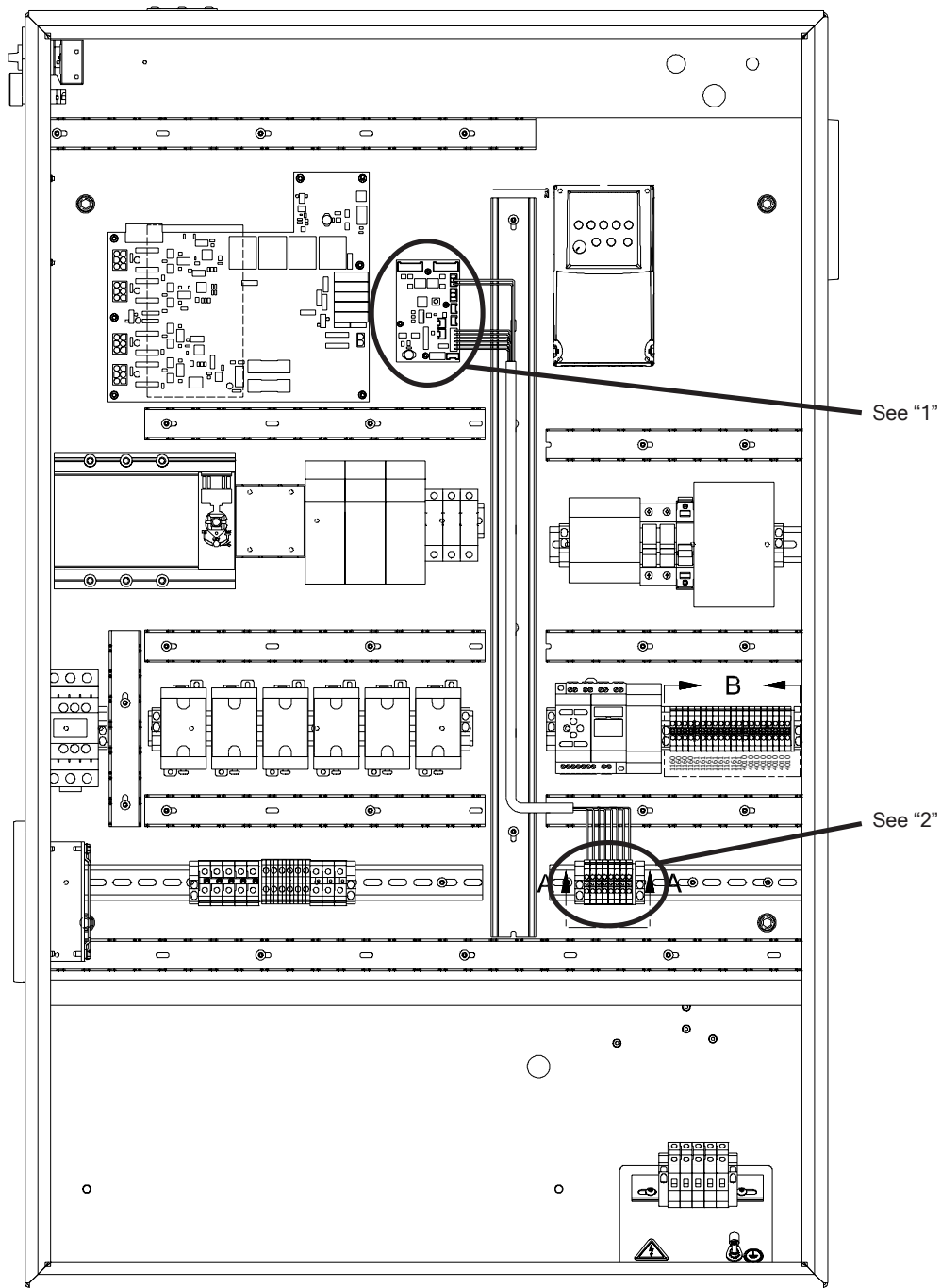
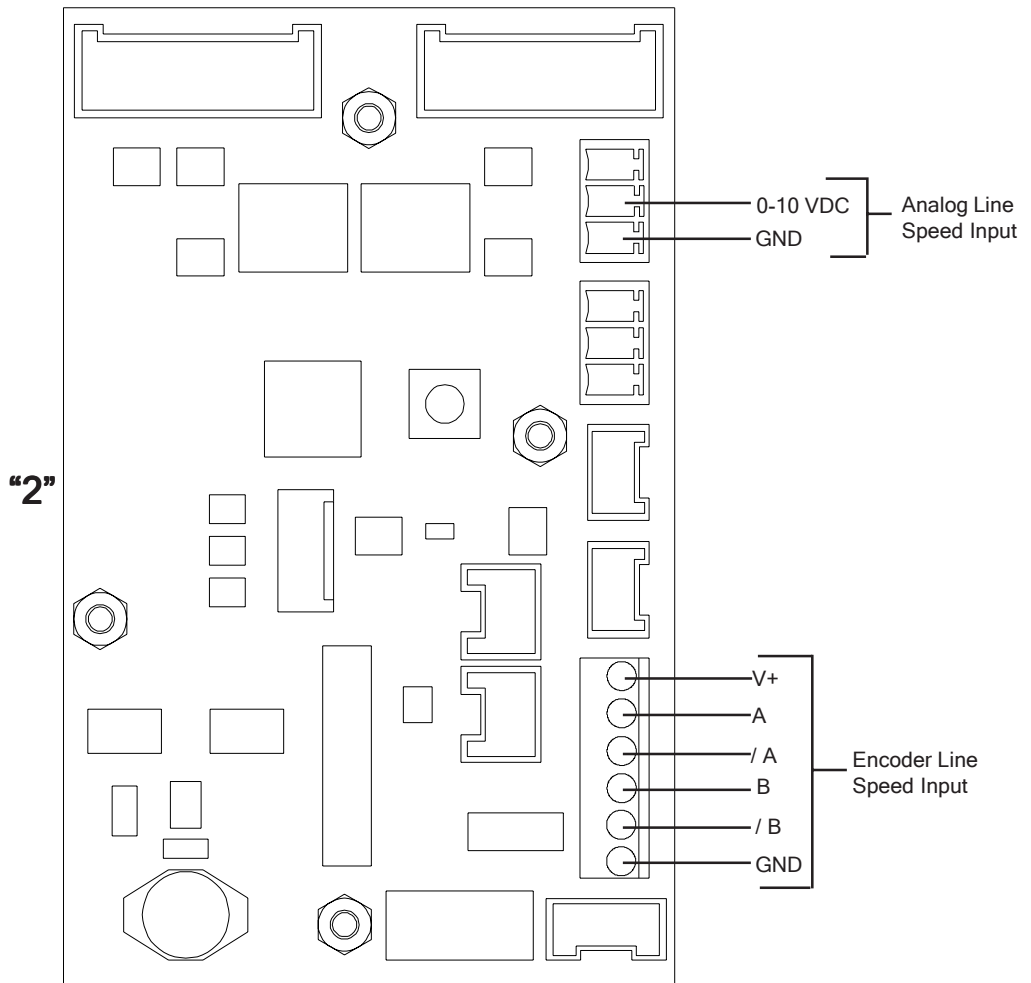
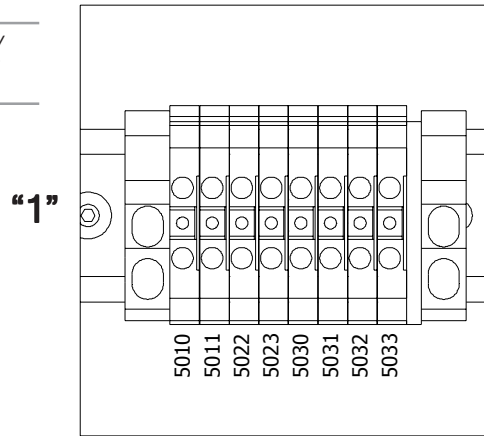


Figure 4-4. Electrical Cabinet

VFD Board - Electrical Cabinet/  
Terminal Locations - Continued



Speed Input	Board Connection	Wire Number
Tachometer*	0-10 VDC	5010
	GND	5011
Encoder	V+	5033
	A	5032
	/A	5031
	GND	5030

\* Can be 0-10 VDC or 0-2.3 VDC

Figure 4-5. Terminal Locations

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## Connecting the Air

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Connect the air supply to the main air disconnect located on the back of the electrical cabinet.

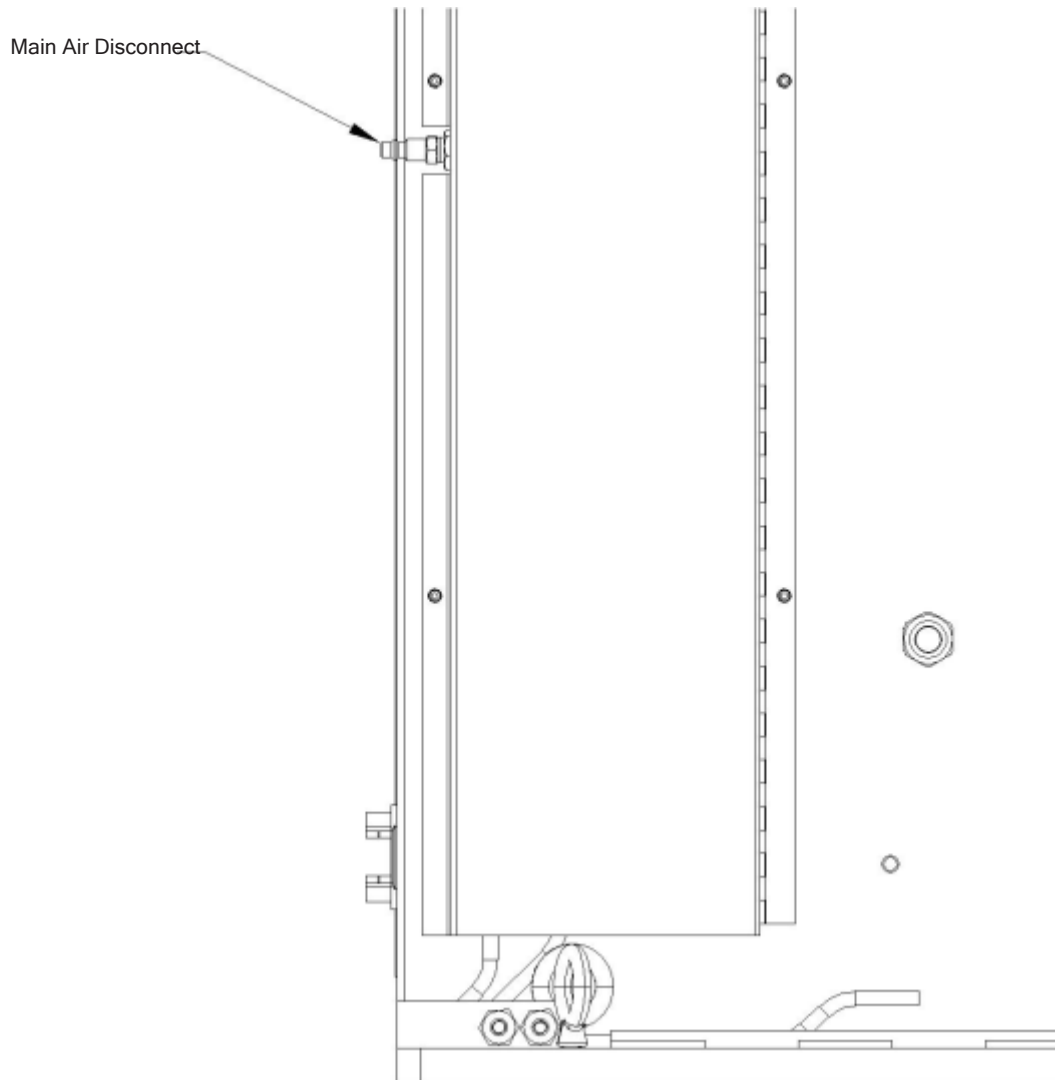


Figure 4-6. Main Air Disconnect Location

The air pressure can be adjusted using the two knobs shown below. The RAM pressure for the unit should be in the range of 35-97 psi [2.4-6.7 bar]. The RAM pressure comes preset from the factory at 75 psi [5.2 bar]. The minimum Blow-Off valve pressure is 35 psi [2.4 bar]. The Blow-Off Valve pressure comes preset from the factory at 40 psi [2.8 bar]. It is recommended that the unit is operated with these factory default settings.

## Connecting the Air - Continued

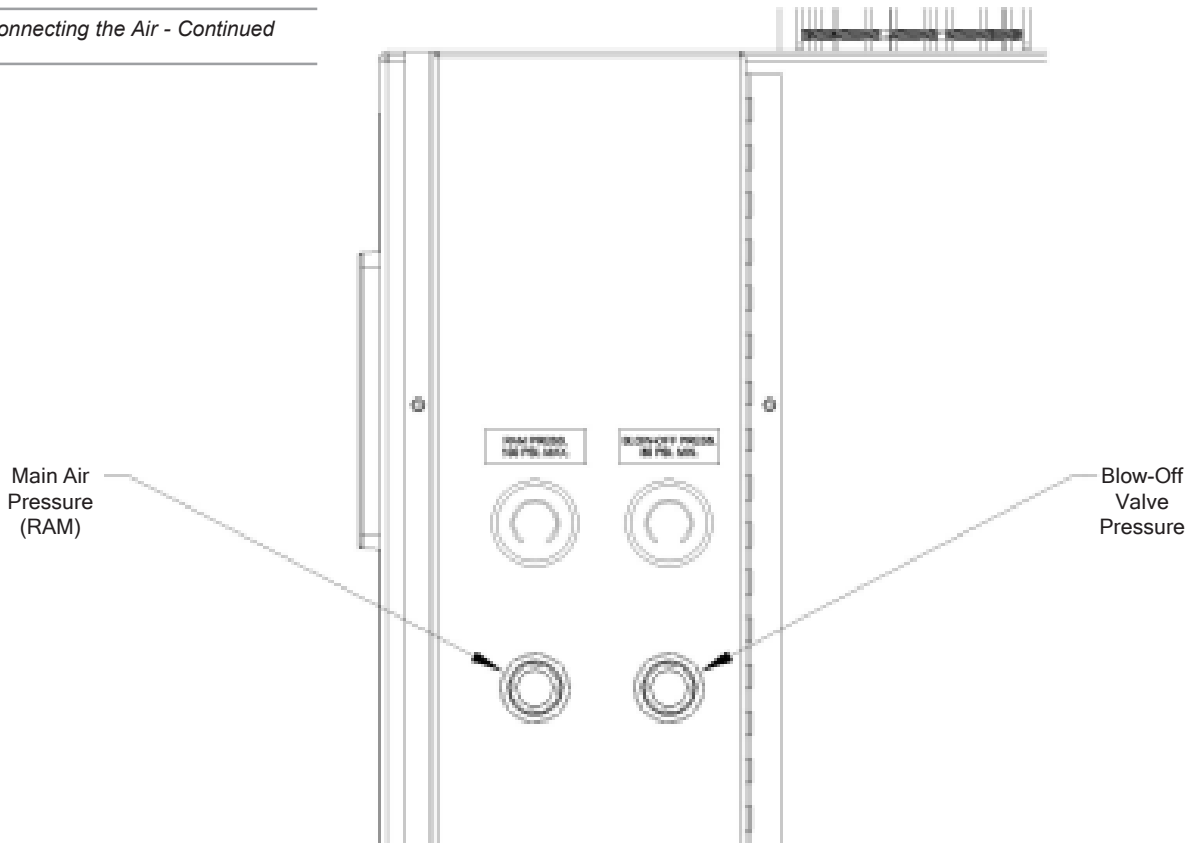


Figure 4-7. Pneumatic Adjustment Locations

## Adjusting the Proximity Switches

This unit has four (4) proximity switches to indicate the platen position. The switches come attached to the cylinder. The position of these switches is set at the factory. The first switch (SW423) indicates that the platen is in the top position. The second switch (SW425) is just inside the drum. When moving in the DOWN position, this switch initiates automatic movement of the platen. When moving in the UP position, this switch turns off the automatic blow-off valve. The third switch (SW410) sends a low-level signal to the PLC, causing the amber beacon to illuminate in units equipped with the Beacon option. Units with the Beacon option will have the amber light turned on. The fourth switch (SW426) indicates the drum is empty, turning the pump off.

Switches SW425 and SW410 are the only ones that can be adjusted.

Adjust SW425 if:

- The blow-off valve shuts off too early, causing the platen to lift the drum. Raise the switch such that it switches just as the platen leaves the drum.
- The blow-off valve continues to operate after the platen leaves the drum. Lower the switch such that it switches just as the platen leaves the drum.

Adjust switch SW410 if:

- There is not enough time to change the drum between the time the low level beacon is illuminated and when the drum is emptied.

Adjusting the Proximity Switches -  
Continued

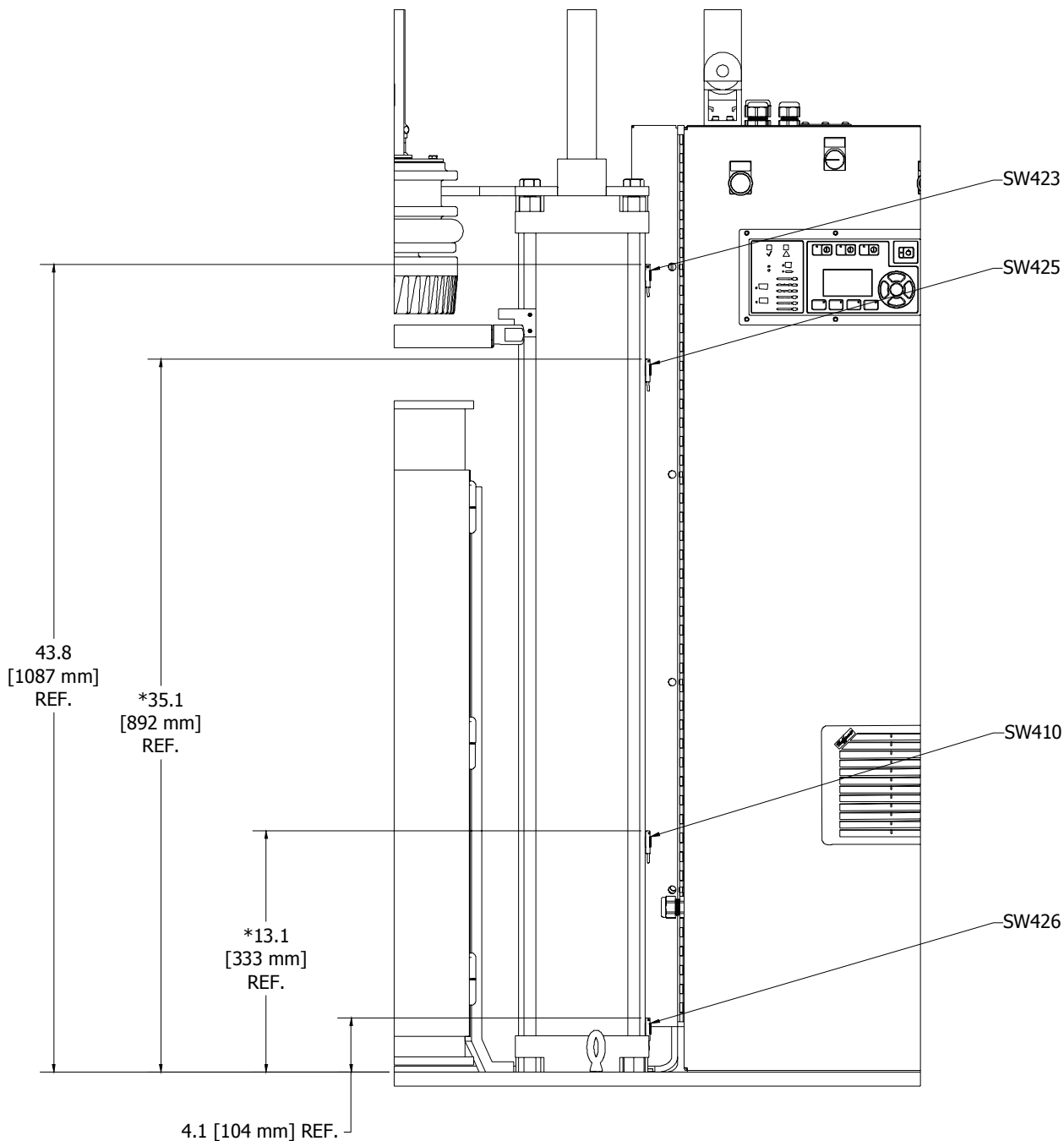


Figure 4-8. Proximity Switch Adjustment



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## Connecting the Hoses

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**WARNING!**

Never disconnect the hot melt hoses from a running unit. Hot melt is under high pressure. Turn off the pump, shut off power to the unit, and actuate the gun to relieve residual pressure before removing the hose. Failure to observe could result in personal injury, death, or damage to equipment.

**CAUTION!**

Do not operate the unit with the fluid outlet ports open to the air. Failure to observe could result in personal injury, death, or damage to equipment.

When routing and installing heated hoses, follow these guidelines:

- Avoid creating sharp corners and edges.
- Do not bend hoses sharper than 18" (460 mm) radius.
- Do not group heated hoses so that they contact one another.
- Avoid positioning hoses where they can be stepped on or have a chance of being crushed or cut.
- Avoid the use of unnecessarily long hoses where the hose is looped or curled on the floor. Excess twisting of the hose can cause irreparable damage to it.
- Maintain separation between hoses to avoid hot spots.

To connect the hot melt hoses to the unit, follow these steps:

1. Using a pair of wrenches, one on the fluid outlet fitting and the other on the fluid cap, remove the protective caps from the fluid outlet fittings.
2. Ensure that the fluid outlet fitting is tight into the machine.
3. Ensure that the fluid outlet ports are clean.
4. Select the end of the glue hose that has the lead assembly with the male electrical connector (Figure 9).

## Connecting the Hoses - Continued

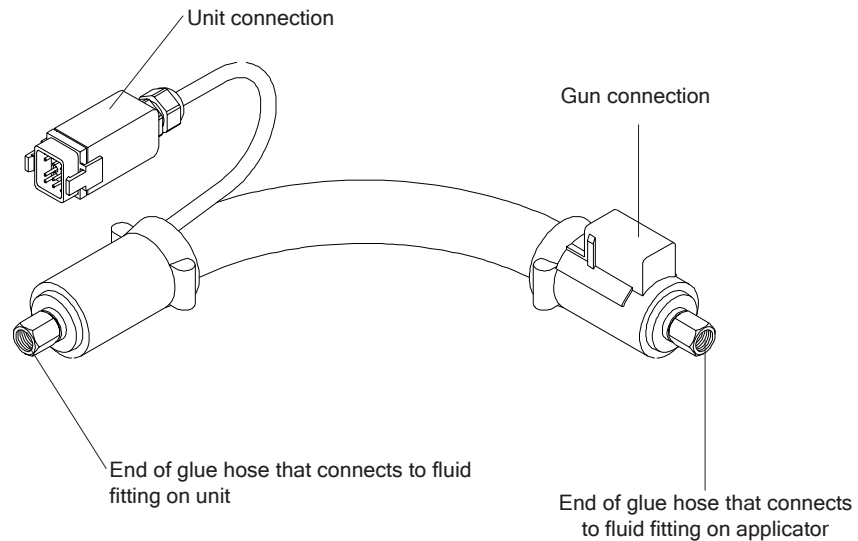


Figure 4-9. Hot Melt Hose

5. Attach this end of the glue hose to the fluid outlet fitting in the manifold (Figure 4-10).
6. Using two wrenches, one on the fluid outlet fitting and the other on the hose swivel nut, connect hose 'one' to fluid outlet port 'one' of the machine.



The Hose #1 fluid outlet port should be used first to prevent trapped hot melt adhesive from charring in the lower portion of the manifold.

Fittings are available from Valco Melton (see *Section 10-Part-Number List*). This unit comes with a #12 straight fitting, unless specified otherwise in the S-number.

The use of two wrenches prevents the hose from twisting inside while it is being tightened.

7. Connect the lead assembly's male electrical connector to the electrical receptacle located on the back panel above the fluid outlet ports. Connections are shown in Figure 4-11.



Fuses for the receptacles are located in the installation kit provided with the unit.

Connecting the Hoses - Continued

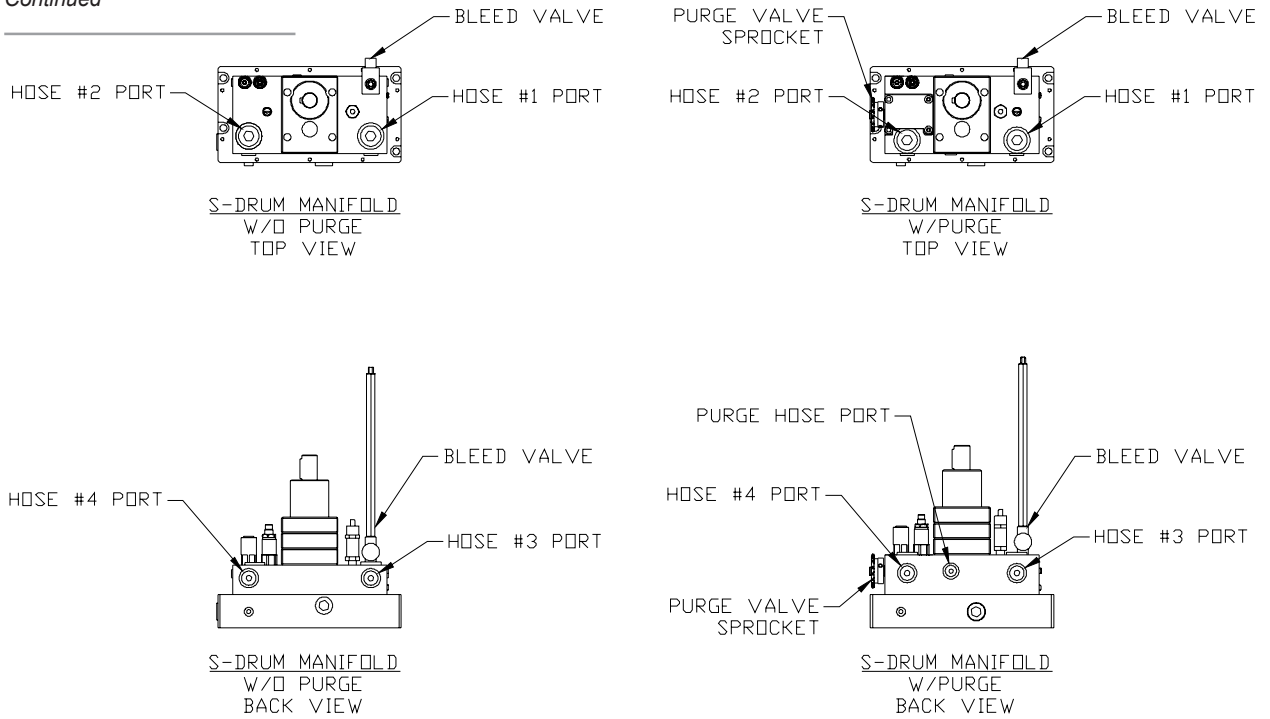


Figure 4-10. Manifold Hose Locations

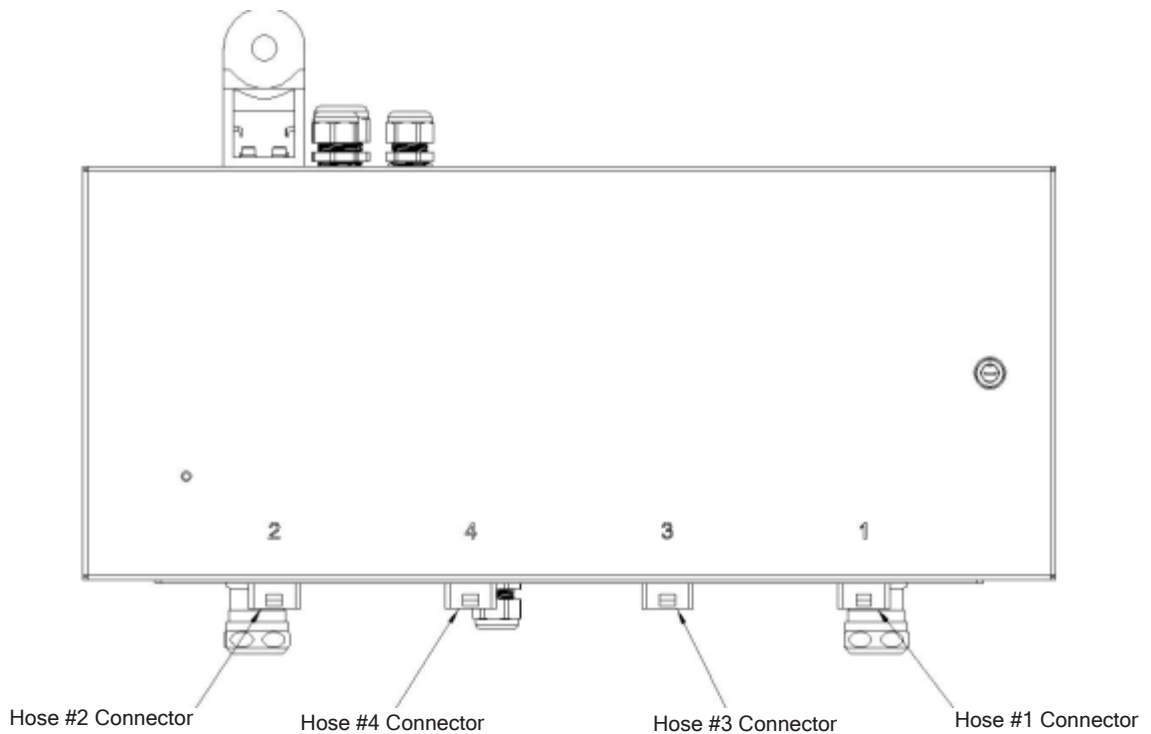


Figure 4-11. Junction Box Hose Electrical Locations

## Connecting the Hot Melt Hoses to the Applicators

### WARNING!



If hand-held applicators are used, care should be taken to ensure safe operation. Heat protective gloves should be worn. Hot melt is under high pressure at the nozzle tip of the applicator. Failure to observe could result in personal injury (burns).

### WARNING!



If hand-held applicators are used, operators should not work facing each other. Failure to observe could result in personal injury (burns).

### WARNING!



If fixed applicators are used, they should be protected from accidental contact by the operator. Failure to observe could result in personal injury (burns).

### CAUTION!



Hand-held applicators require a suitable hook for hanging while not in use. The hook must support the weight of the applicator with the hose. Failure to observe could result in damage to equipment.

Either hand-held or fixed applicators can be used with the unit.

To connect the fixed applicators, follow these steps:

1. Mount the applicator to the desired location on the parent machine.



Do not place applicators where the ambient temperature is low or where there is a draft.

2. Connect the end of the hot melt hose (Figure 4-12) to the fluid inlet fitting on the applicator (Figure 4-13).
3. Connect the hot melt hose lead assembly's female connector to the lead assembly on the applicator.

Connecting the Hot Melt Hoses to the Applicators - Continued

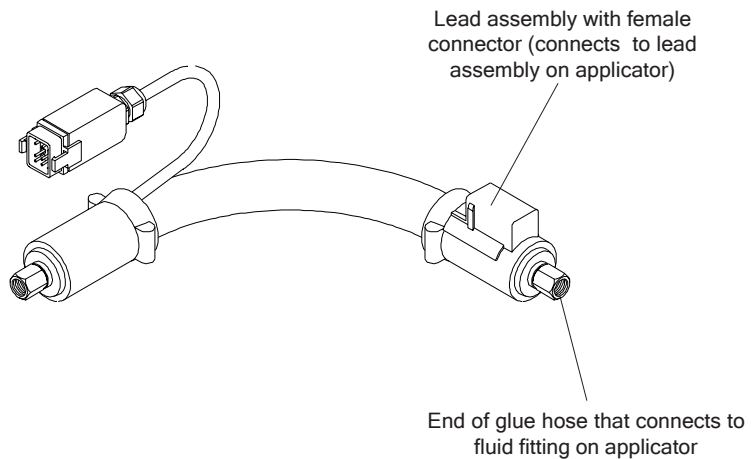


Figure 4-12. Hot Melt Hose

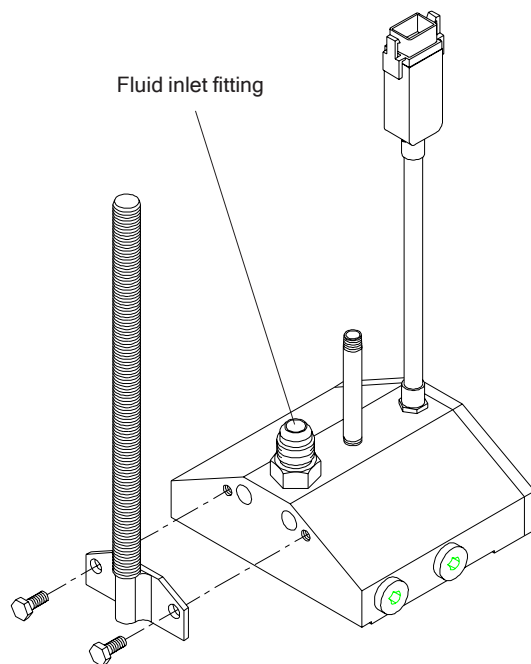


Figure 4-13. Applicator

# Customer Connections

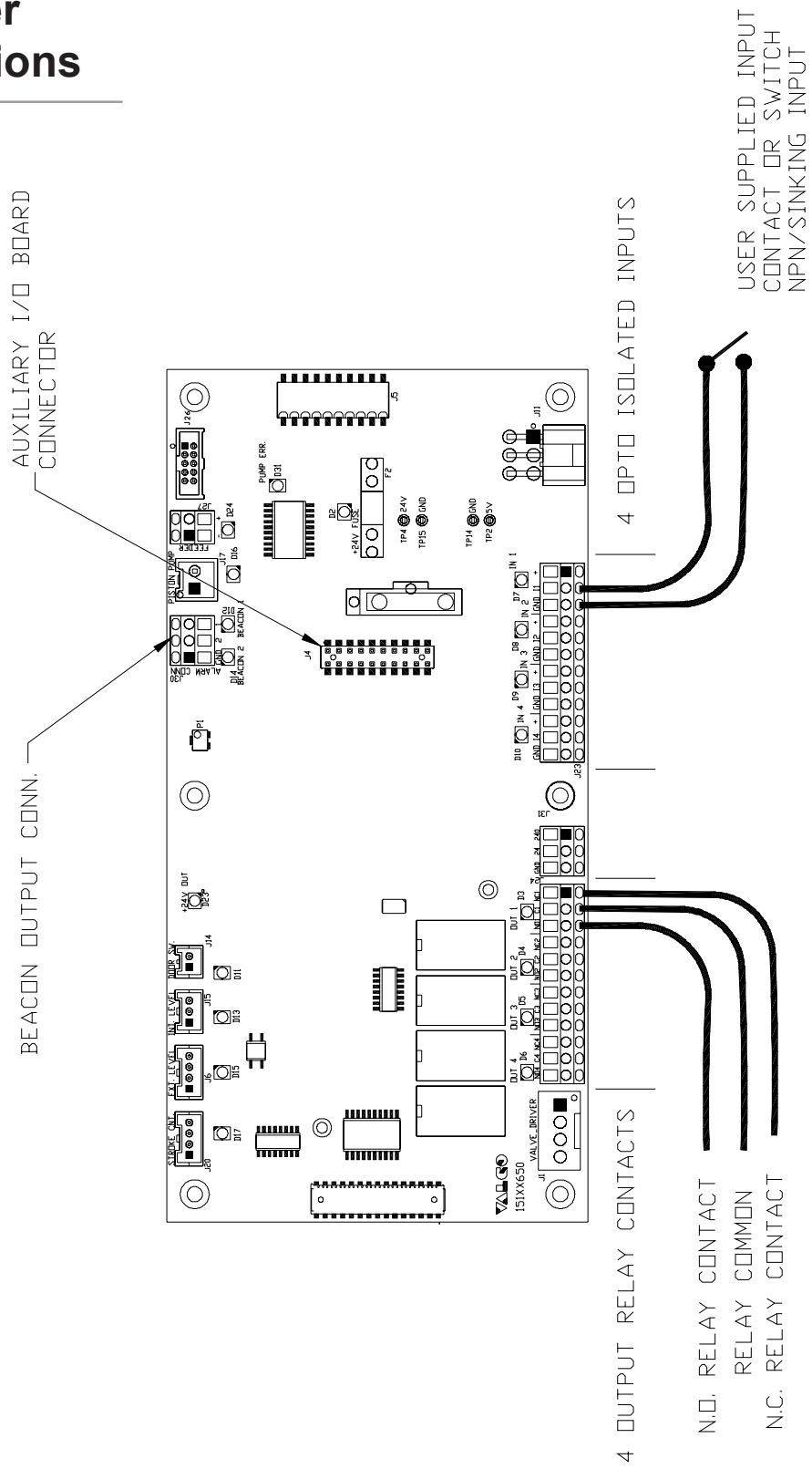


Figure 4-14. Customer Connections

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## Vent Hood

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This unit can be equipped with an optional vent hood. The vent hood can be used to remove dangerous vapors that are released when heating certain adhesives. This vent hood requires a customer supplied ventilation duct to be connected the exhaust port. The port is 4" [102 mm] in diameter.

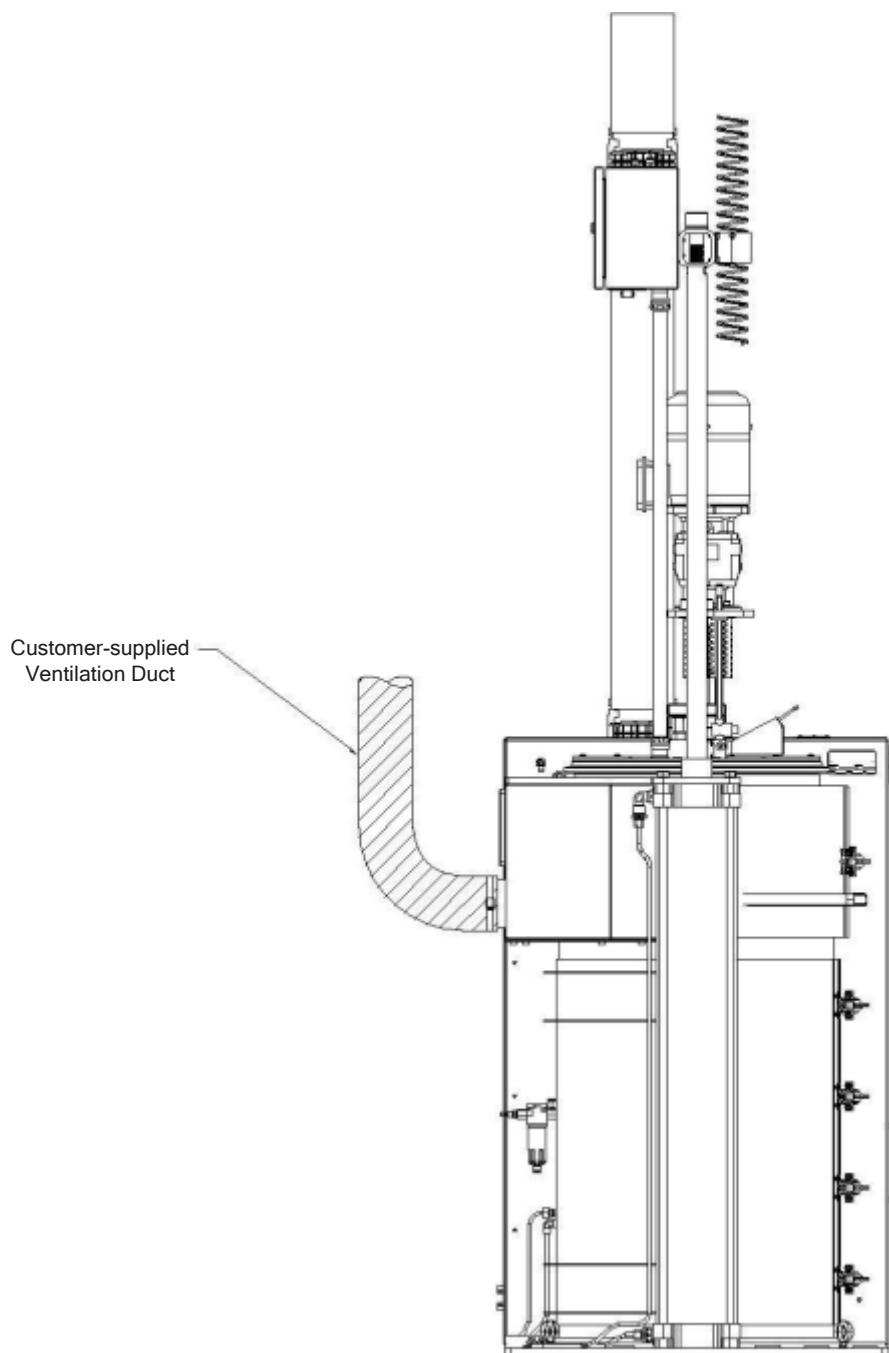
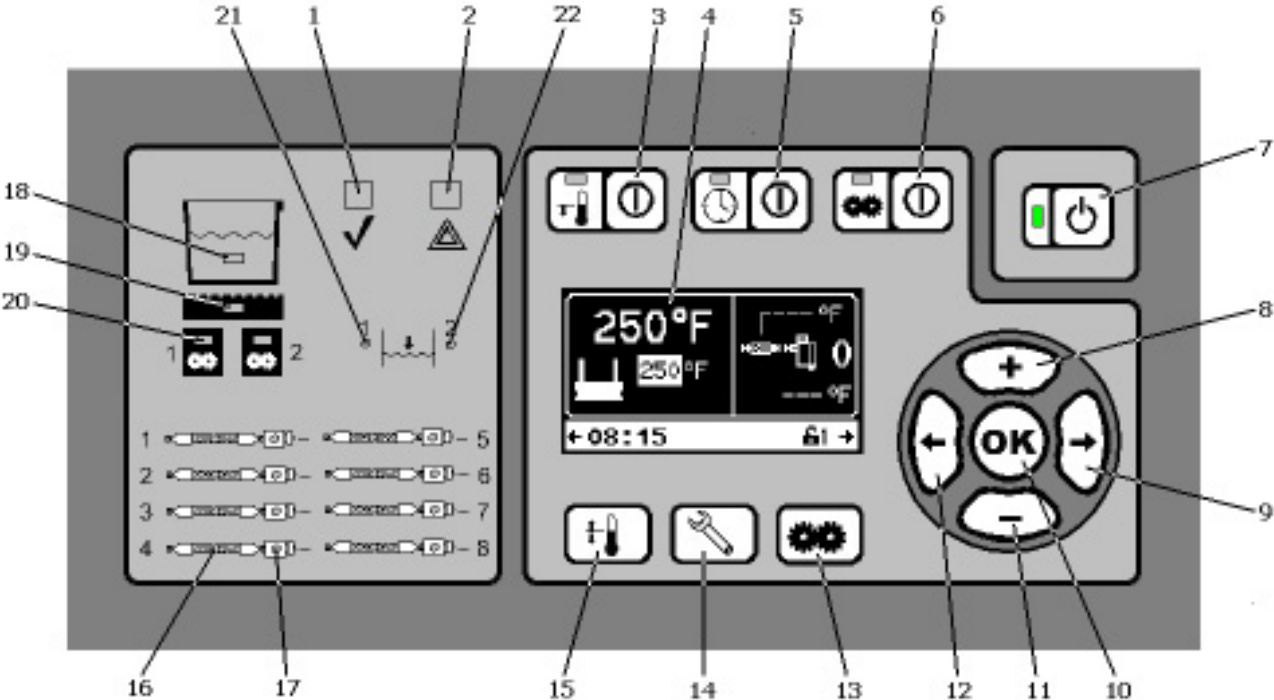


Figure 4-15. Vent Hood

# SECTION 5 - SETUP

## Control Panel



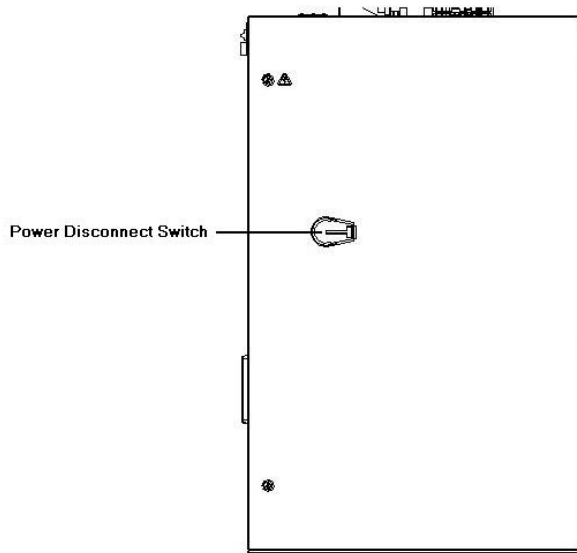


## Control Panel, Continued

ITEM	NAME	DESCRIPTION
1	System/Ready LED	Illuminates green when the unit reaches ready temperature
2	Warning LED	Illuminates red when the unit enters an alarm condition
3	Setback ON/OFF Key	Put unit into and out of setback mode. This reduces the temperature to keep the adhesive soft but not molten during downtime. Yellow LED indicates that the setback mode is initialized.
4	Display Screen	Displays the menu and event screens
5	Clock ON/OFF Key	Turns the clock function on and off. Green LED indicates the clock is active.
6	Pump ON/OFF Key	Turns the pump on and off. Green LED indicates the pump is active.
7	Standby ON/OFF Key	Puts the unit in and out of standby. Green LED indicates the unit is on and an orange LED indicates the unit is in standby.
8	Plus Key	Increases the valve of the selected field
9	Right Arrow Key	Move right thru the fields on the screen
10	OK Key	Enters or exits a screen where a selected field can be edited
11	Minus Key	Decreases the valve of the selected field
12	Left Arrow Key	Move left thru the fields on the screen
13	Pump Menu Key	Displays the pump group screens
14	Setup Menu Key	Displays the setup group screens
15	Temperature Menu Key	Displays the temperature group screens
16	Hose LED	Illuminates green when the hose zone is heating and red when the zone is in alarm.
17	Gun LED	Illuminates green when the gun zone is heating and red when the zone is in alarm.
18	Tank LED	Illuminates green when the upper platen zone is heating and red when the zone is in alarm.
19	Grid LED	Illuminates green when the lower platen zone is heating and red when the zone is in alarm.
20	Pump Manifold LED	Illuminates green when the manifold zone is heating and red when the zone is in alarm.
21	Internal Low Level LED	Always on unless low level occurs on the internal level control input
22	External Low Level LED	Always on unless low level occurs on the external level control input

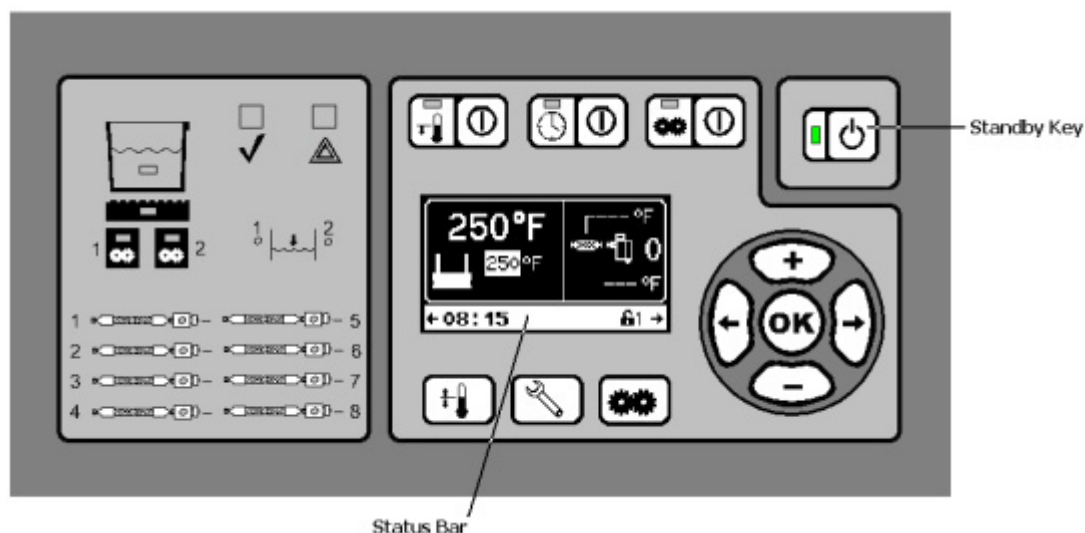
## Power On/Off and Standby Mode

The Power Disconnect Switch is located on the side of the electrical cabinet (see picture below). The Power Disconnect Switch controls the power to the system.



The Standby Button controls the power to the Heater circuits. Press the Standby Button once. The display screen will come on and the Standby LED will illuminate green, indicating that the unit is on. When the Standby Button is pressed again, the temperature screen will go blank, the Standby LED will illuminate orange and the status bar will be active, indicating the unit is in Standby Mode.

**i** When the unit is in Standby Mode, the internal clock is still working. The clock will turn the unit off and on in the Timer Mode, as usual. If the Power Switch is turned off, however, the internal clock will NOT automatically turn the unit on and off; the internal clock has no power when the system is off.

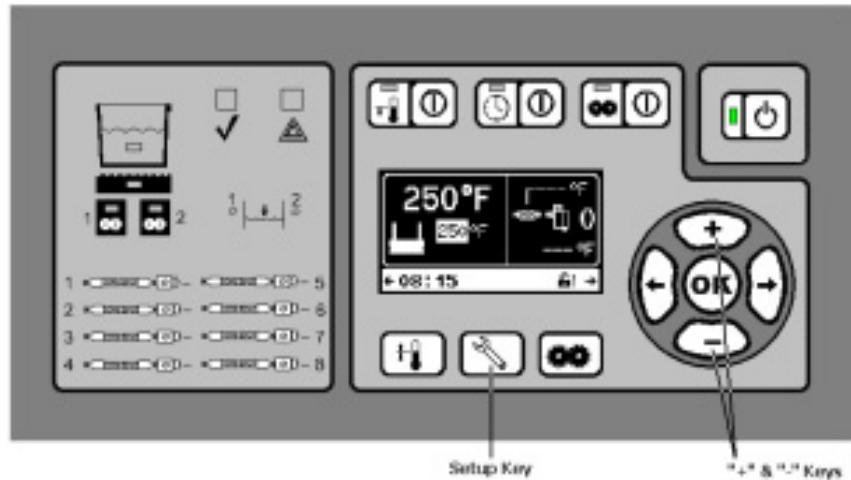


# Display Adjustment

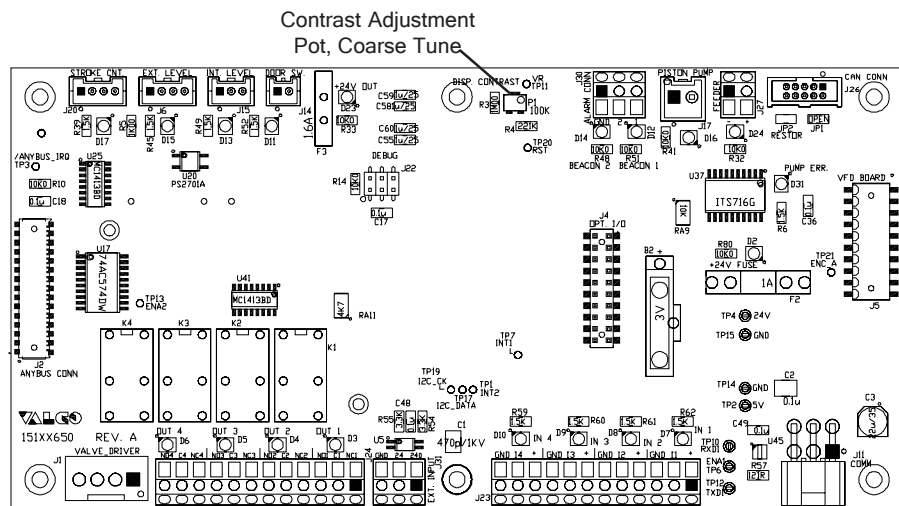
The display contrast is adjusted for optimal viewing at the factory. If the display is not visible when the Temperature Controller powers up, the contrast may need to be adjusted.

Follow the procedure below to adjust the contrast:

1. While holding down the 'SETUP' key on the front panel keyboard, simultaneously press the "+" and "-" keys to change the contrast on the display. This will make the characters on the display brighter and dimmer, and is considered the fine adjustment.



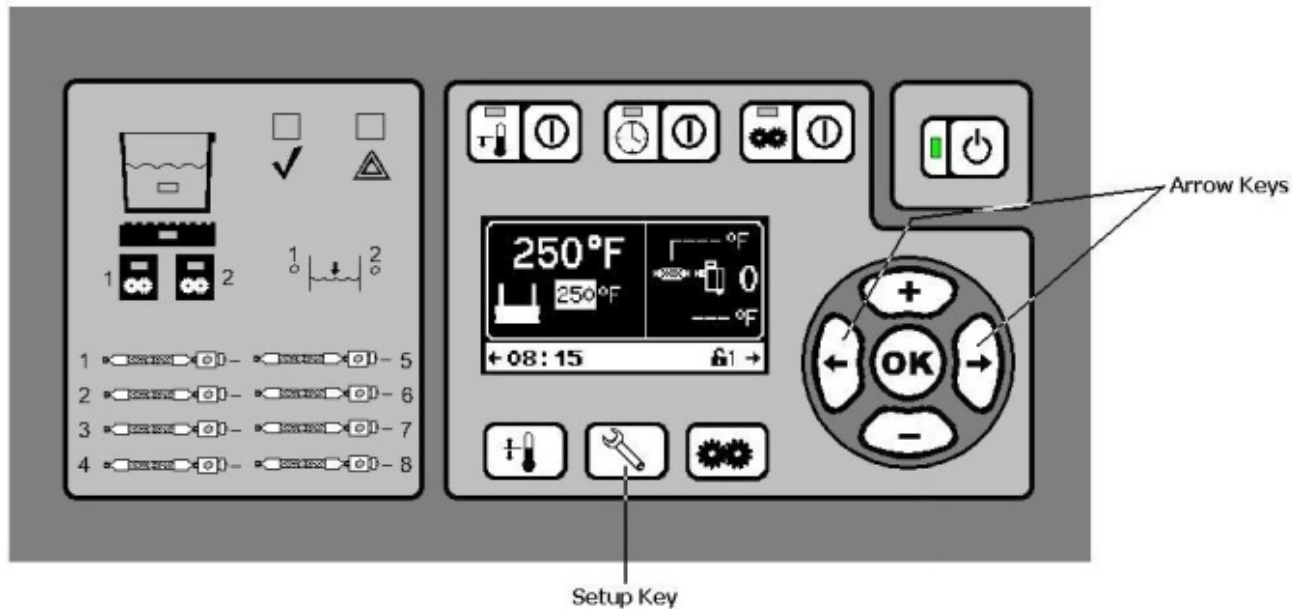
2. If this does not work, or is not enough to see the display, open the electrical enclosure door to view the rear of the CPU board.
3. Adjust the Display Contrast Adjustment Pot on the rear of the CPU board using a small screwdriver. (this requires a very small slotted screwdriver)
4. This is the course adjustment and small incremental turns of this pot will make drastic changes in the brightness of the display.



Contrast Adjustment – Coarse Adjustment

Display Adjustment - Continued

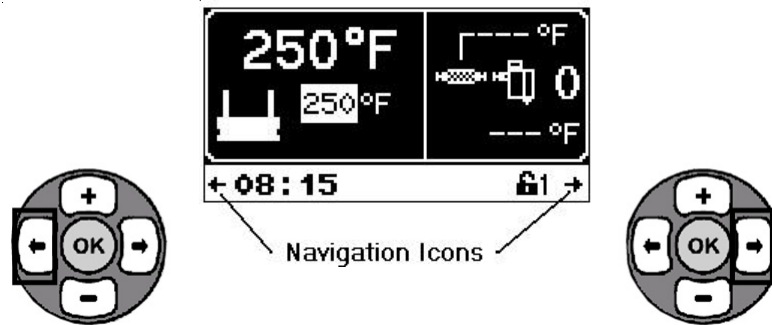
5. Adjust the screen position by holding down the “Setup” key on the front panel keyboard, while simultaneously pressing the left or right arrow key, to move the screen left or right, as needed.



# User Interface

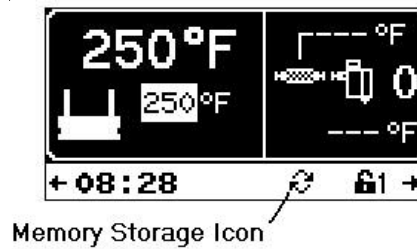
## Navigation

Navigation symbols on the bottom of the display screen indicate that additional menus are available. Use the indicated button(s) to navigate as follows:



## Memory Storage

The symbol consisting of two arrows in a circular pattern indicates that a value has been changed but the change is not yet stored in the flash memory.



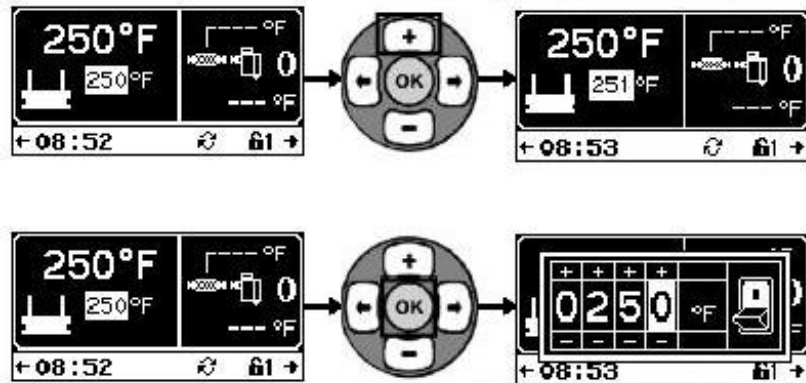
## Editing

Highlighted information is editable. Use the appropriate buttons (depending on the navigation symbols shown) to navigate through the editable (highlighted) information



### ***Thumbwheel vs. Single Digit Edit***

When editable information is numerical, the information may be edited with the Plus/Minus Buttons for single digit editing, or the OK Button may be pressed to bring up a thumbwheel for more detailed editing.



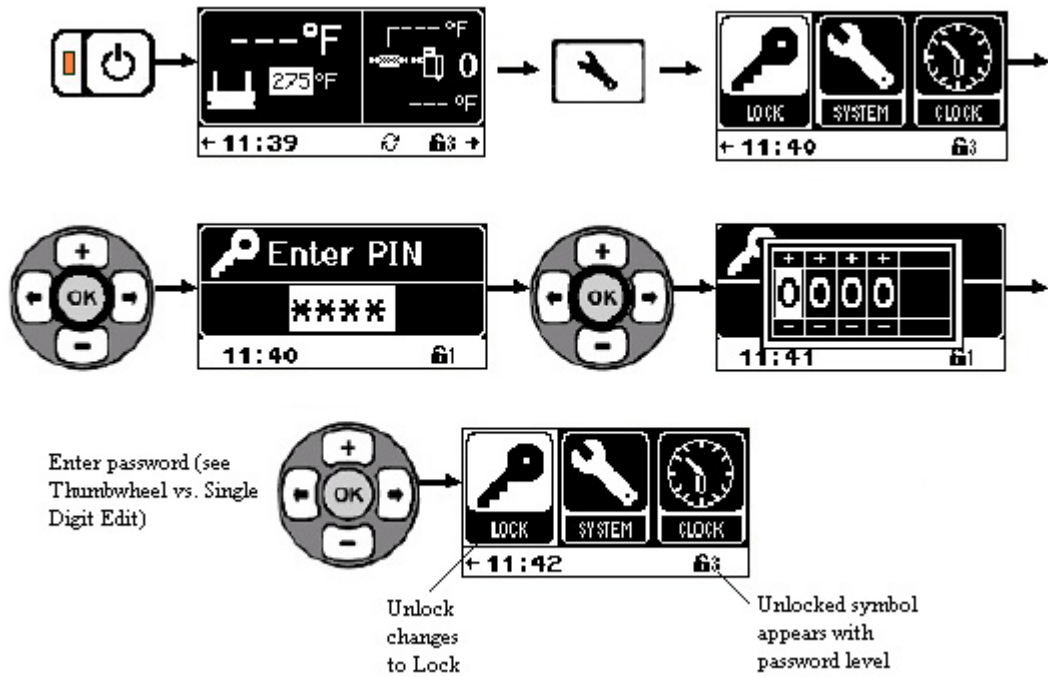
In Thumbwheel Edit, use the Right/Left Arrow Buttons to select the digit position, and the Plus/Minus Arrow Buttons to increase/decrease the value of the selected digit.



Some thumbwheel screens contain a switch that can be used to turn the selected function ON or OFF. Common examples would be turning a hose or gun zone ON or OFF, making a schedule change to turn on setback during a shift, or enabling Sequential Start. Use the Right/Left Arrow Buttons to select the switch, then use the Plus/Minus Buttons to toggle the switch ON or OFF.

# Entering Passwords

Passwords are required to prevent unauthorized access to unit programming. Please see *Appendix A - Password Levels* for more information. To enter a password:



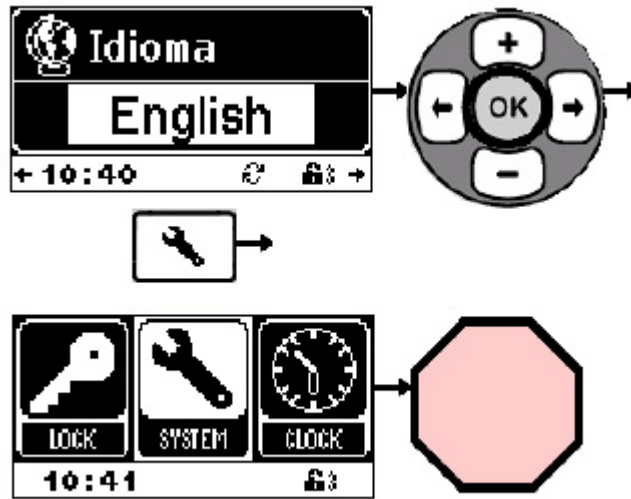
# Set Language



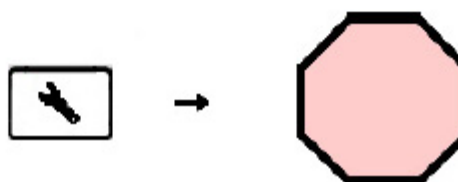
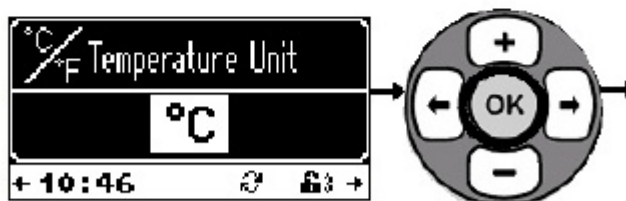
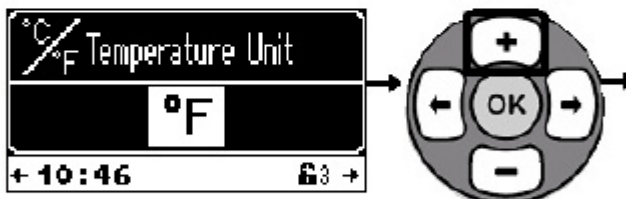
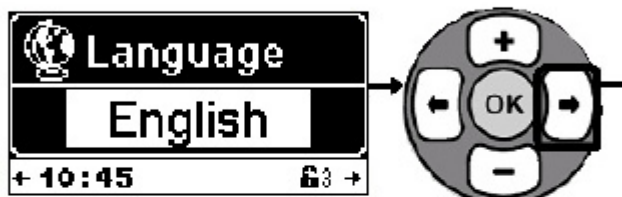
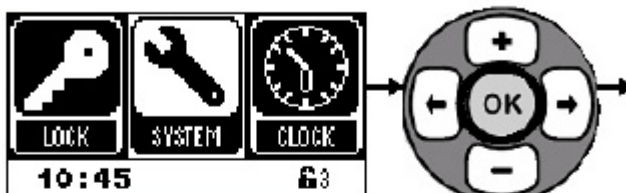
CONTINUED NEXT PAGE



Set Language - Continued

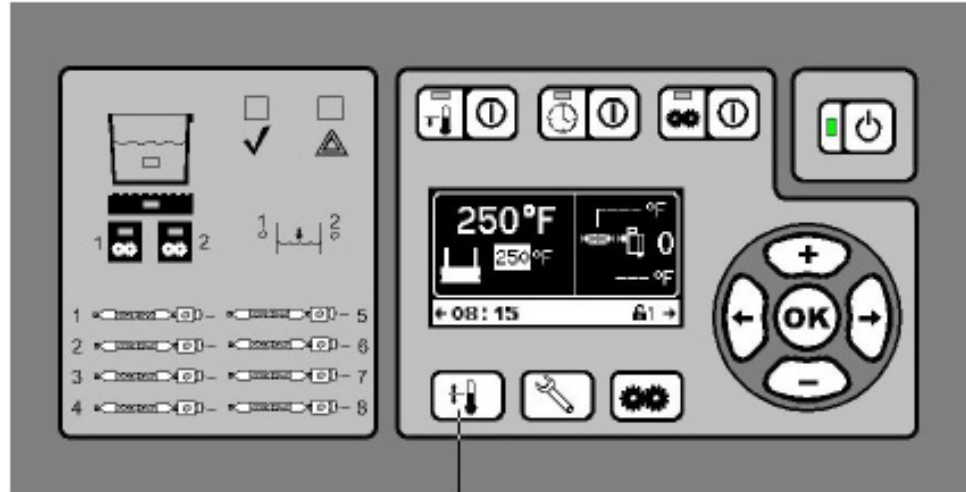


# Set Temperature Units



### Programming Temperatures

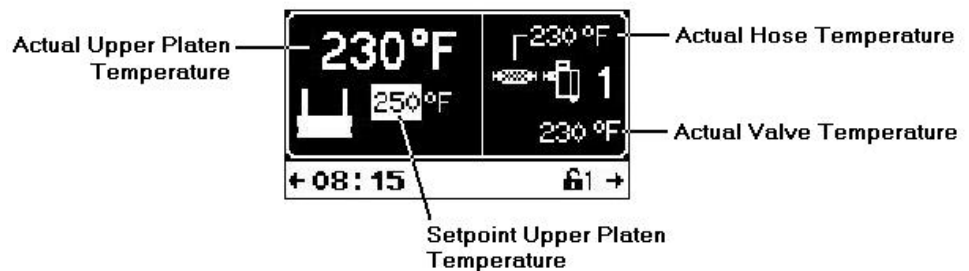
Press the Temperature Button (if the Temperature LED is not illuminated green) to show the first temperature screen.



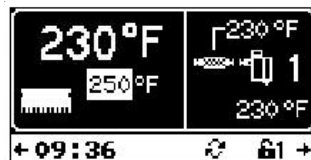
Temperature Key

### Temperature Screens

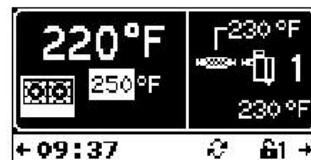
The tank temperature screen shows the actual tank temperature and the tank temperature setpoint. For operator convenience, the right side of this screen scrolls through enabled hose / gun zones and displays the actual temperatures as shown.



Press the Temperature Button repeatedly (or use the navigation keys) to cycle through the temperature screens until you reach the desired screen.



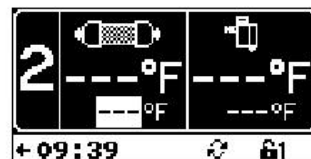
Lower Platen



Pump/Manifold

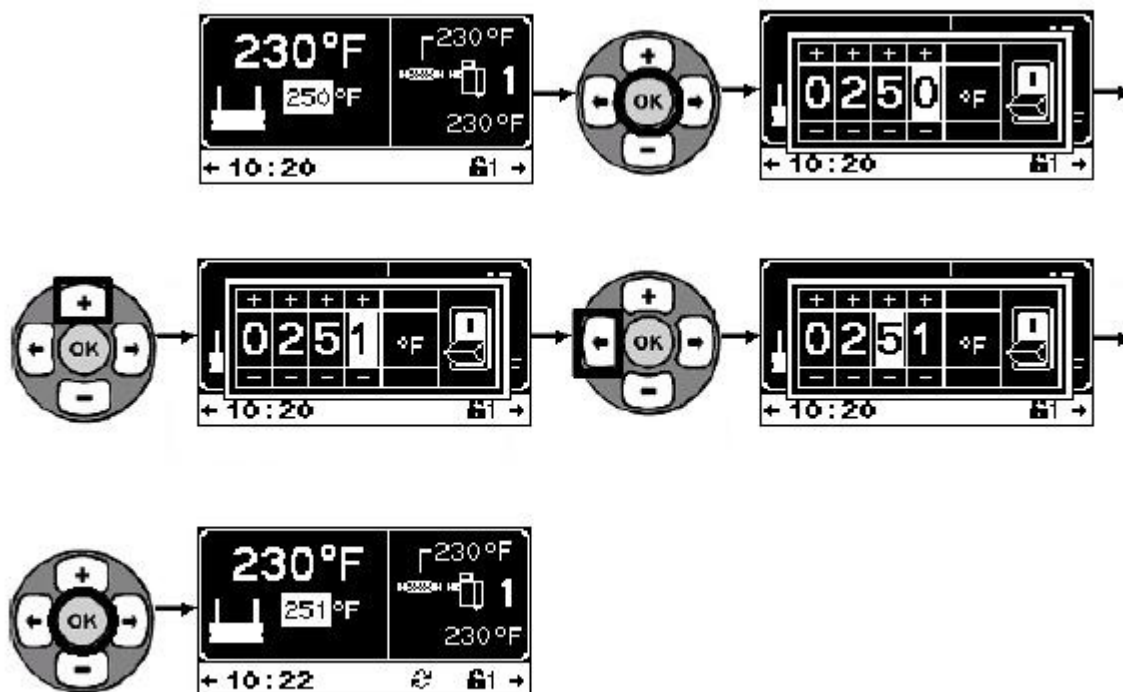


Hose/Gun #1

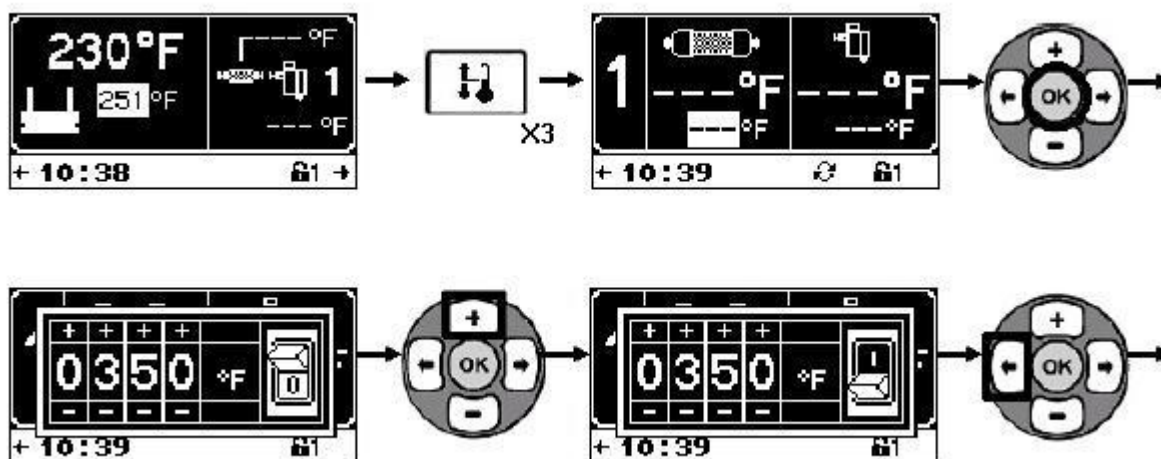


Hose/Gun #2

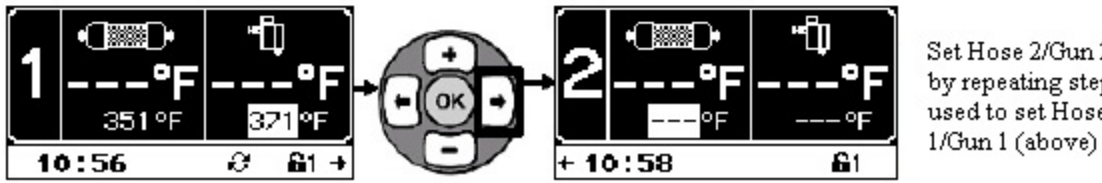
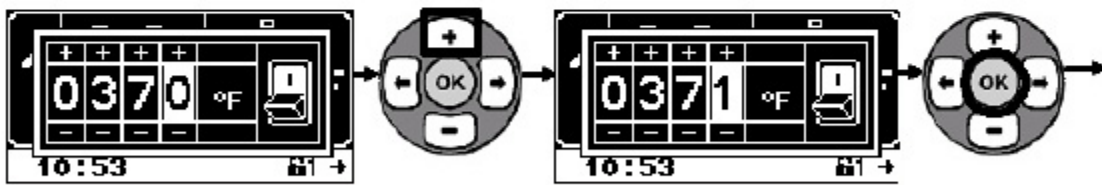
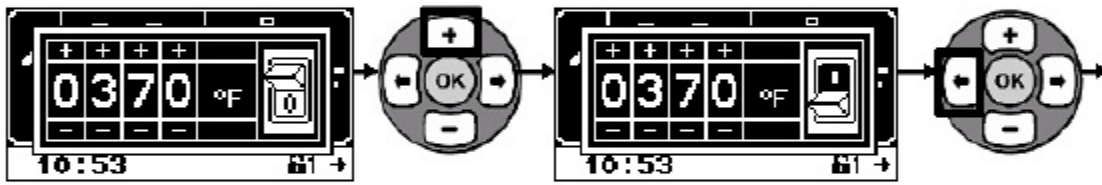
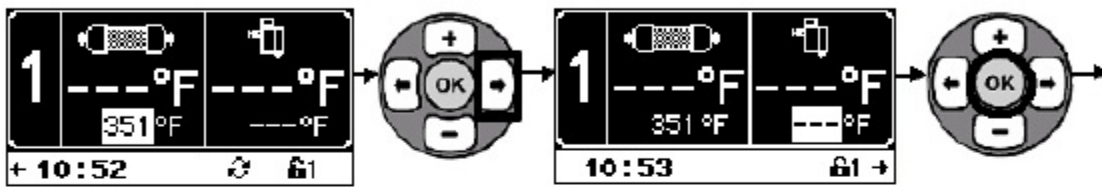
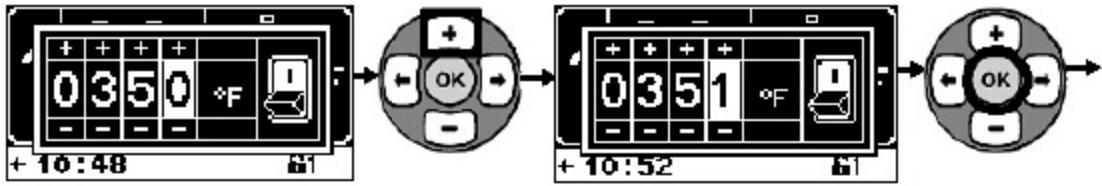
**Platen Temperature**



**Hose/Valve Temperature**



Hose/Valve Temperature  
Continued



Set Hose 2/Gun 2 by repeating steps used to set Hose 1/Gun 1 (above)

# System/Pump Ready Temperature Offset

The System Ready Temperature is relative to the temperature setpoint of each zone. The system is ready (and the System Ready LED illuminates green) when all zones reach their respective temperature setpoints minus the System Ready Temperature Offset.

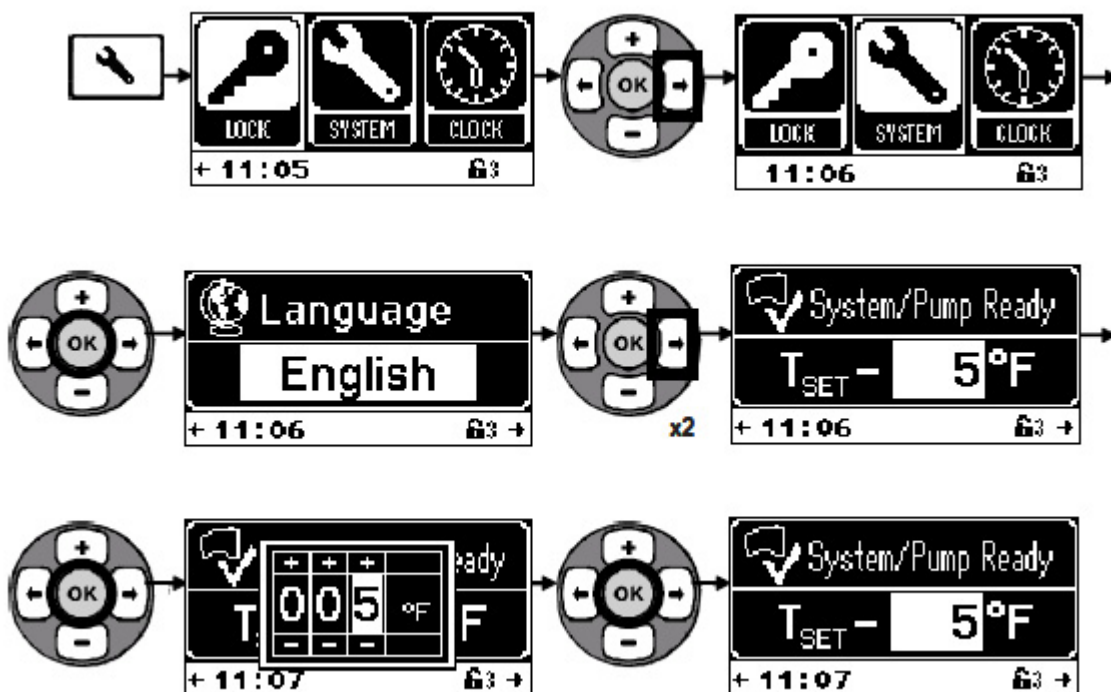
The system ready signal enables the pump motor. This prevents the pump motor from being activated before the adhesive in the pump has softened.

Consult the adhesive data sheet to find the softening point temperature.

The System Ready Temperature Offset must be set to at least -5°F (-3°C). If it is set too close to the setpoint (for example, -1°F), the pump motor will stop during momentary drops in temperature of any zone until the zone is again within 1°F of the setpoint.

The System Ready Temperature Offset parameter range is 0°F to 36°F (0°C to 20°C) and the default factory setting is 5°F (3°C).

This parameter can be accessed in Password Level 2 or higher (see *Appendix A - Password Levels*).



# Ready Delay Time

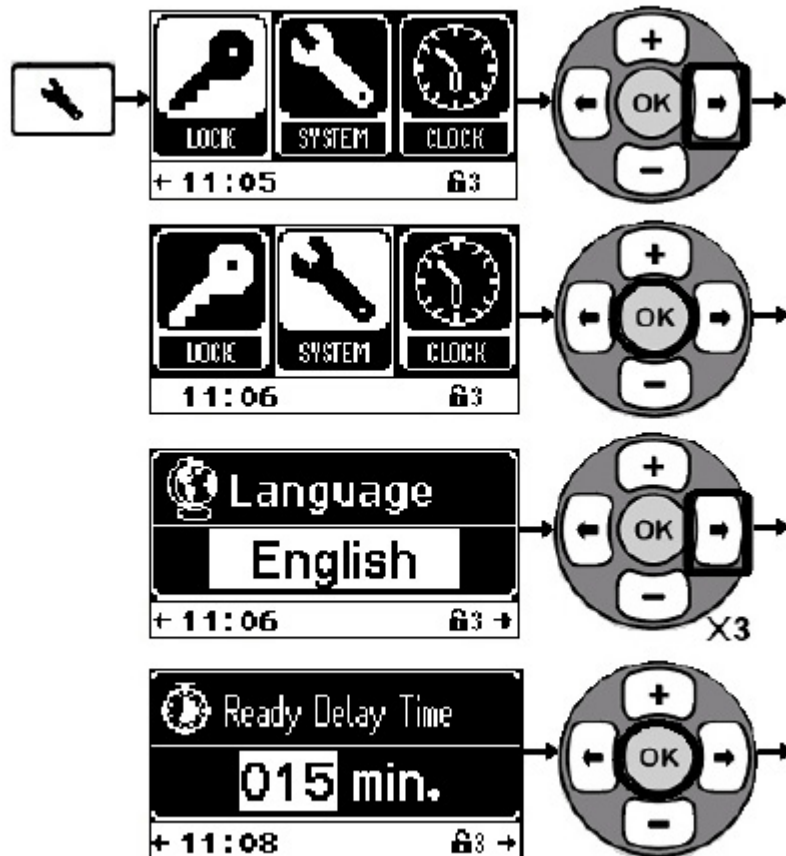
When the Ready Delay Time is used, the System Ready LED will illuminate a preset time after all of the zones reach their respective temperature setpoints minus the System Ready Temperature Offset. This feature allows the adhesive in the system to heat for an additional period of time before the pump motor is enabled.

Once the zones have reached the System Ready Temperature, the time remaining before the system is ready is displayed on the status bar at the bottom of the screen.

The ready delay range is 1 minute to 120 minutes. The default factory setting is **ON at 30 minutes**.

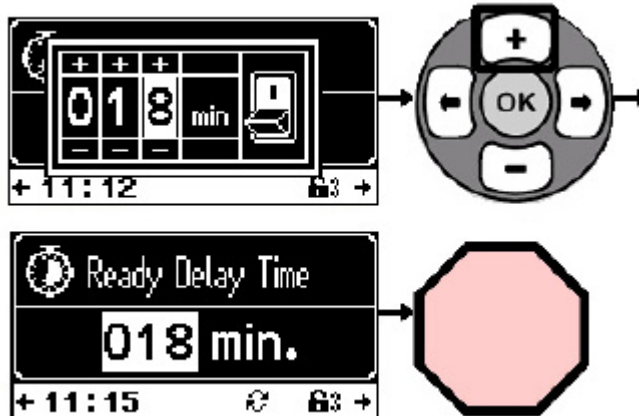
To prolong the life of the seal in the pump, this default time of 15 minutes should not be reduced.

This parameter can be accessed in Password Level 2 or higher (see *Appendix A - Password Levels*).



CONTINUED NEXT PAGE

Ready Delay Time-Continued





# Over Temperature Alarm

The Over Temperature Alarm setting pertains to all active zones.

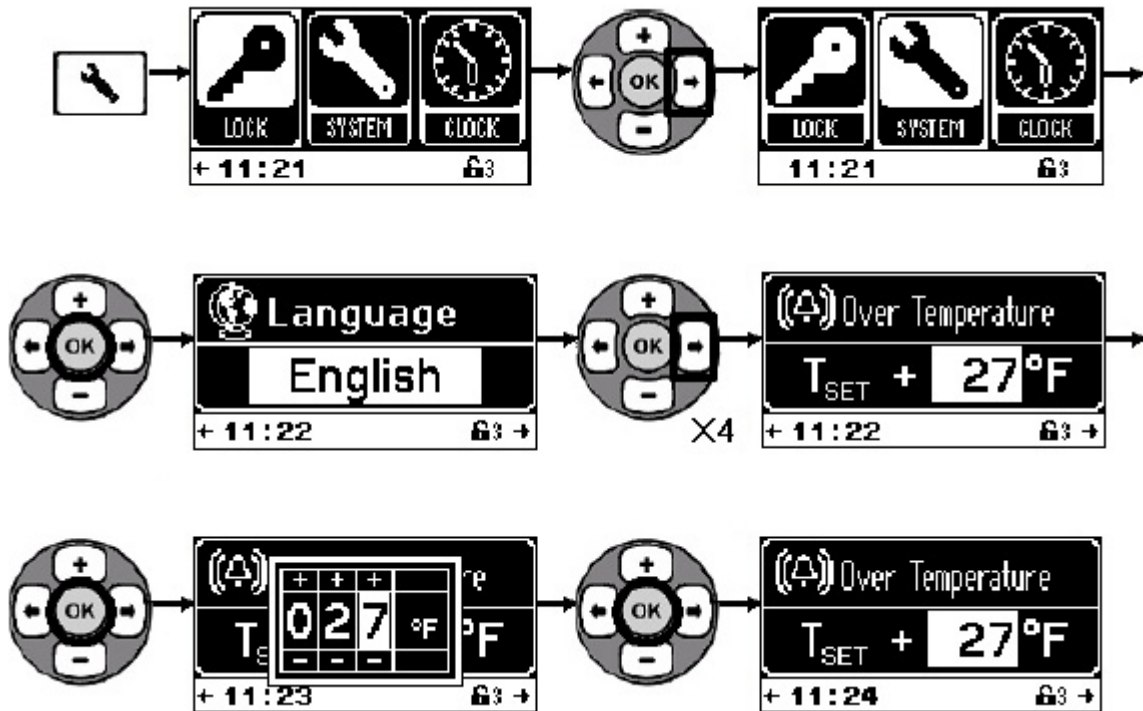
The number entered on this screen, is the amount of degrees ABOVE each zone’s set temperature that a zone can heat to before activating the Over Temperature Alarm.

If any zone goes into Over Temperature Alarm, the heaters of the affected zone are automatically shut off. If the Over Temperature Alarm message appears, it can be cleared by pressing the ‘OK’ key.

**i** If the Over Temperature Alarm condition lasts for a duration of 2.5 minutes, the master control relay will be deactivated removing power from the heating zones, and the Fault History screen will appear. After correcting the cause of the fault, the unit must be powered off and back on again to reset the control and reactivate the master control relay.

The over temperature alarm tolerance range is 9°F to 108°F (5°C to 60°C). The factory default setting is 27°F (15°C).

This parameter can be accessed in Password Level 2 or higher (see Appendix A - Password Levels).





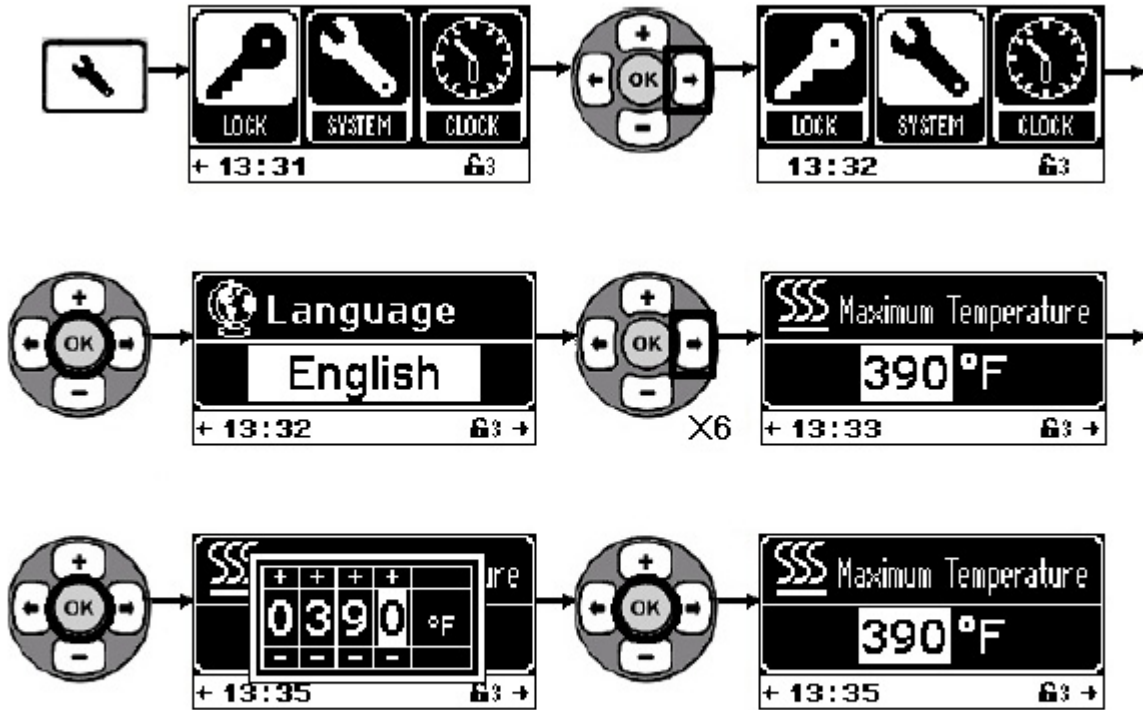
# Maximum Temperature

The Maximum Temperature setting is the maximum value for the setpoint of any zone.

The maximum temperature range is 32°F to 446°F (0°C to 230°C).

The factory default setting is 390°F (199°C).

This parameter can be accessed in Password Level 3 or higher .



## Beacon/Alarm Setup

The Beacon/Alarm Setup allows a specific Beacon, designated by number, to be set to indicate one of six conditions:

- Pump On
- Ready
- Alarm (Zone Faults)
- Low Level
- Setback On
- Feeder Alarm (Not applicable for this unit)

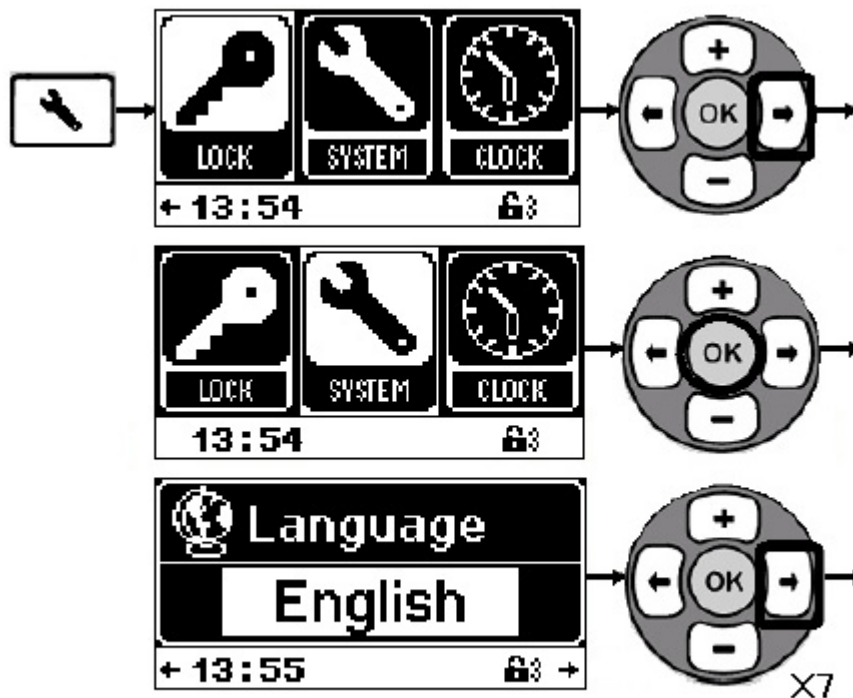
The alarm may also be set to “Disabled,” which is the factory default setting.

J30, on the CPU, provides a +24VDC - GND connection for each beacon/ alarm desired. This output is rated for +24VDC, 0.5A.

The Beacon Assembly is available as an option. A single-light version will include an amber light, while the three-light version will include a blue, amber and red light. The beacon will be enabled if this option is ordered from the factory. The factory settings are shown below:

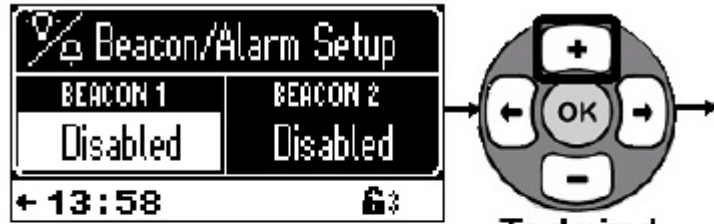
Light Color	Condition
Blue	Setback ON
Amber	Low Level
Red	Alarm

This parameter can be accessed in Password Level 2 or higher (see *Appendix A - Password Levels*).



Continued on Next Page

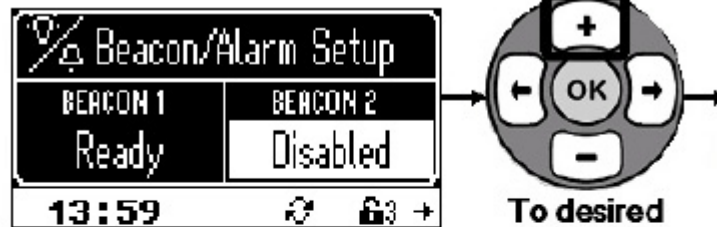
Beacon/Alarm Setup - Continued



To desired condition



Beacon 2



To desired condition



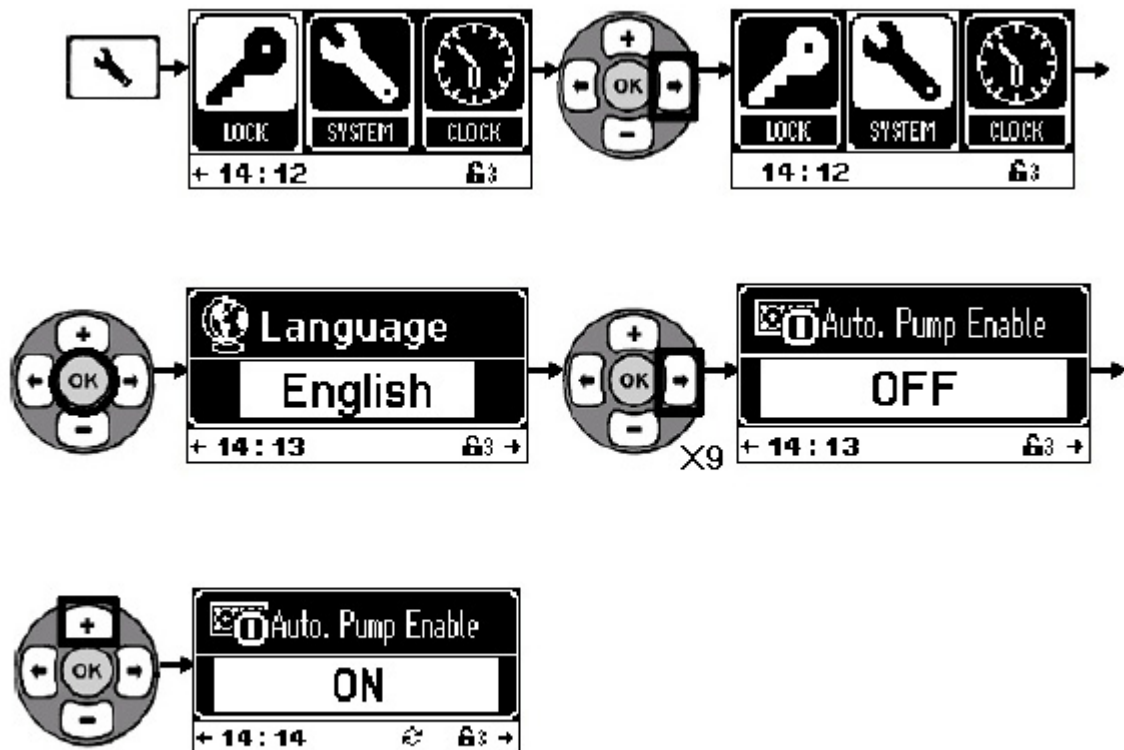
## Automatic Pump Mode

When the Automatic Pump Mode is on, the pump will automatically start when the system reaches temperature and the System Ready LED illuminates.

If the Ready Delay Time is enabled and set for a preset time (15 minutes), the pump will not start and the unit will not be ready until 15 minutes AFTER the control has gotten to temperature.

The factory default setting is OFF.

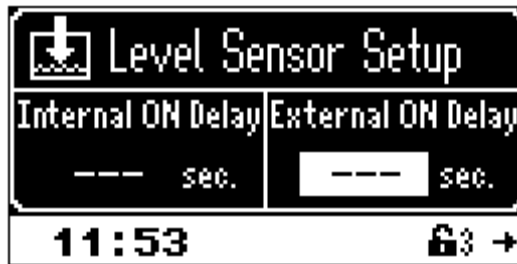
This parameter can be accessed in Password Level 2 or higher.



# Level Sensor Setup

*Internal Level*  
*External Level*

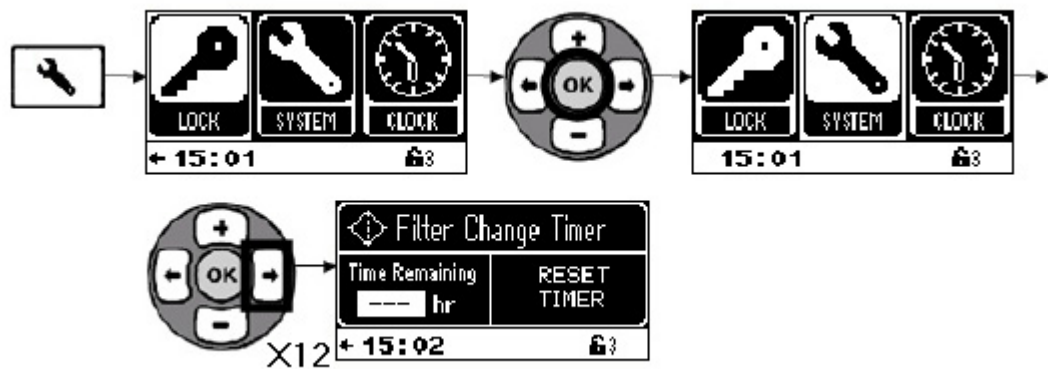
There are two level-control inputs that can be used with the S-Drum Unit, an internal level sensor and an external level sensor. The external level sensor is used for pot fill mode (see Pot Fill Mode - Section 5). The delay for these sensors to activate can be set in this screen. These inputs can be enabled, and the time delay set, on the screen shown below. They can be tied into a programmable output (see “User Inputs and Outputs,” later in this section).



# Filter Change Timer

The Filter Change Timer Screen is a count down timer that shows the time remaining on the currently installed glue filter. When the counter gets down to zero (0), an alarm can be sounded and the filter needs to be changed or cleaned. Once the filter has been serviced, the timer can be reset for a user set time of up to 2000 hours.

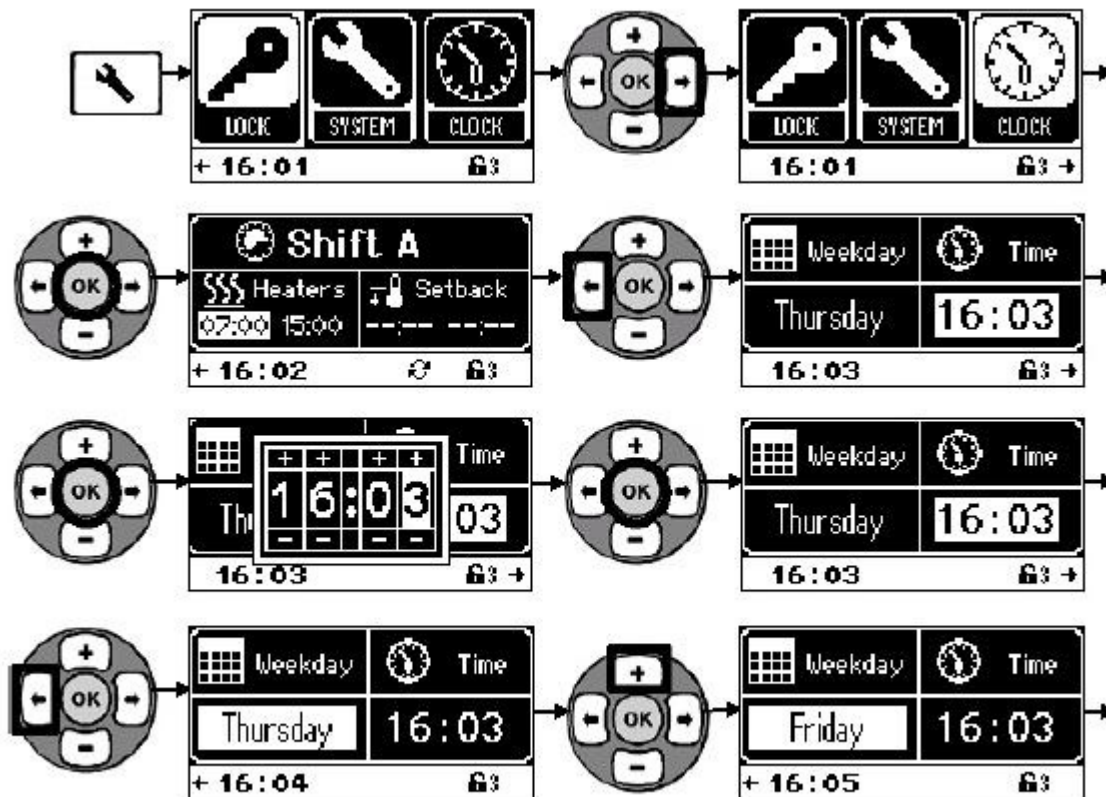
The S-Drum does not have a filter and, therefore, the factory default timer is OFF.



# Clock and 7-Day Timer

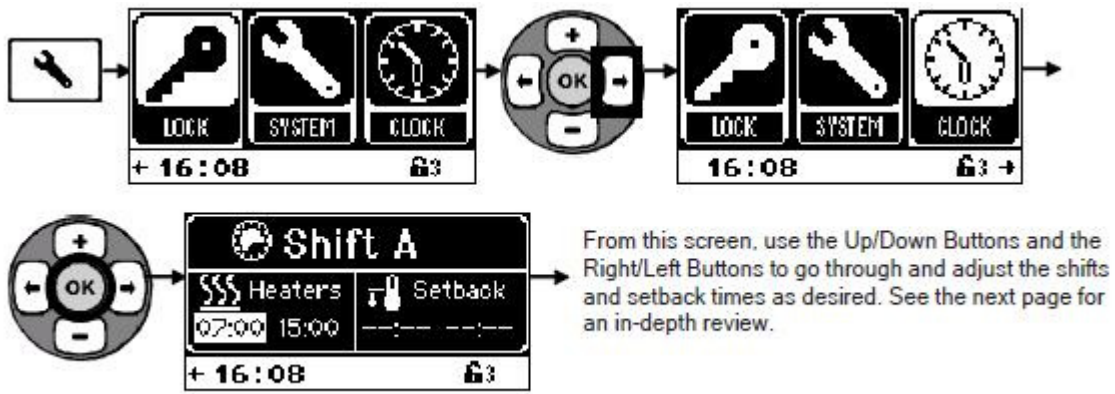
## Set Day and Time

The Clock sub menu is used to set the current day and time and to setup shifts with on, off, and setback times/temperatures that are automatically run by the internal clock.





### Shift Times/Setback Times



### Programming Shifts

Three shifts can be programmed into the unit. Start shift, end shift, and setback times can be pre-programmed for each shift to reduce downtime. Make certain all desired temperatures are set first (see Programming Temperatures, this section).

First program the time the heaters will be on, off, and in setback for each of the three shifts. Use the Right/Left Arrow Buttons to move through the times and shifts and the OK Button to get a thumbwheel to set the times and turn on the setback feature with a “switch” on the thumbwheel. (The heaters can be set with or without using the setback times.)

Set the start, stop, and setback times for all shifts. Leave the unused shifts/ times blank (—).



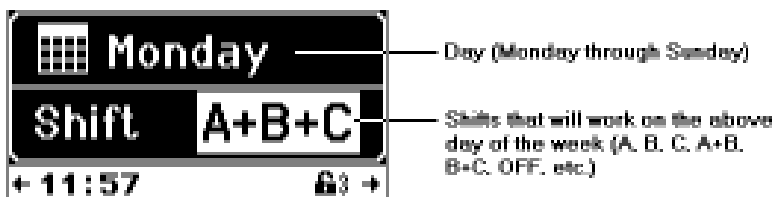
This screen states that for Shift A, heaters will turn on at 7:00 AM to the setpoint temperatures (set on the Temperature Screens, previously shown) and off at 3:00 PM, with all heaters going to the setback temperatures from 11:30 AM to 12:00 PM.

Programming Shifts - C0ntinued

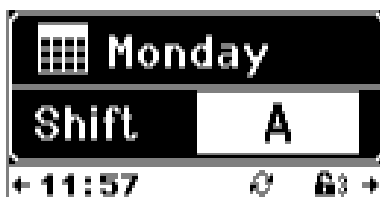


This screen states that for Shift C, nothing will be on, since there is no Shift C working.

After setting all shift times, program the shifts that will be enabled for each day of the week. The Up/Down Arrow Buttons cycle through the different combinations of shifts, and the Left/Right Arrow Buttons cycle through the days of the week.



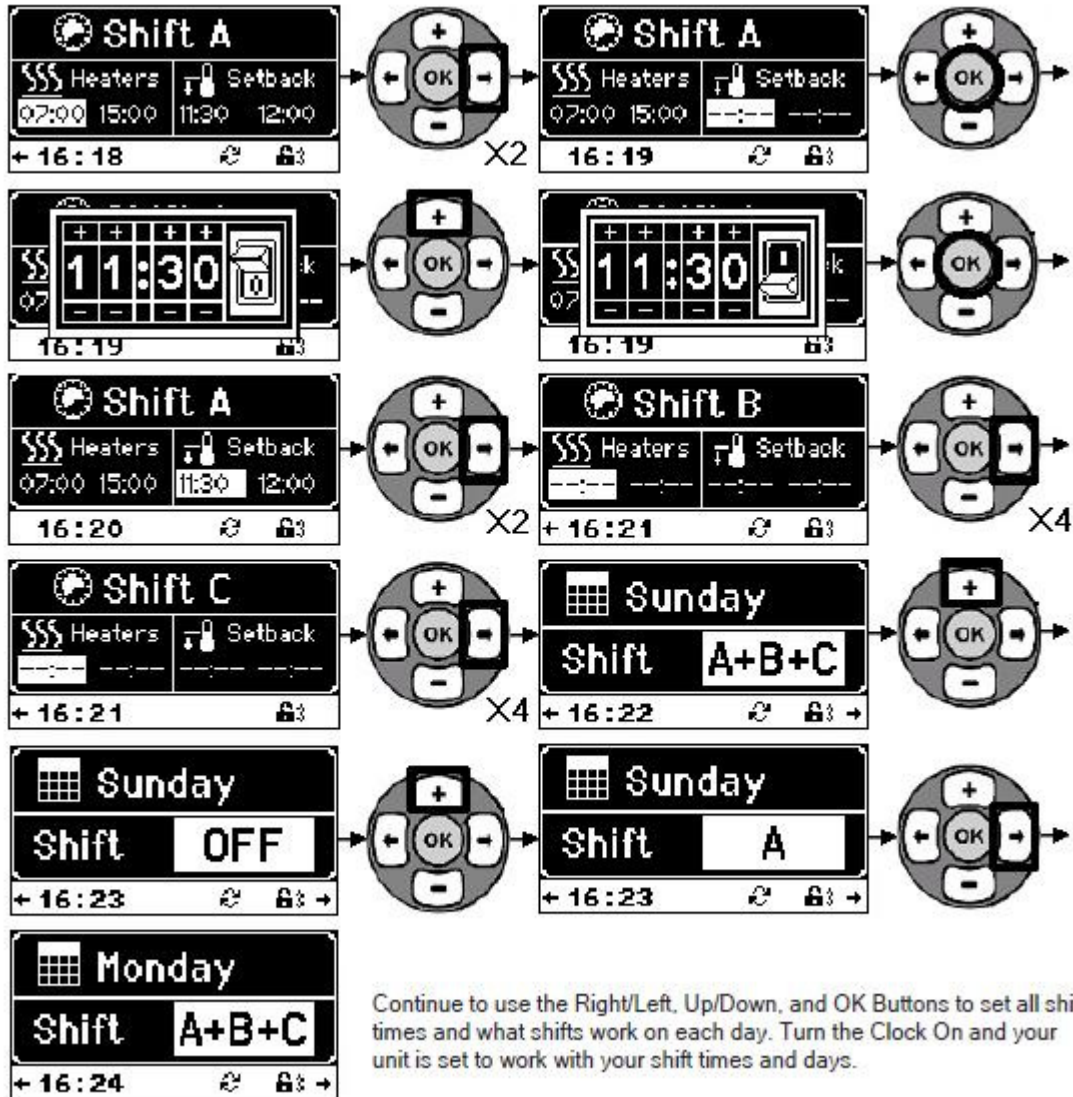
This screen states that on Mondays all three shifts (A, B, and C) will be working.



This screen states that on Mondays only Shift A will be working.

After setting all shift times (previous page) and programming the shifts that will be working for each day of the week (this page), be sure the Clock Function is On and is set properly.

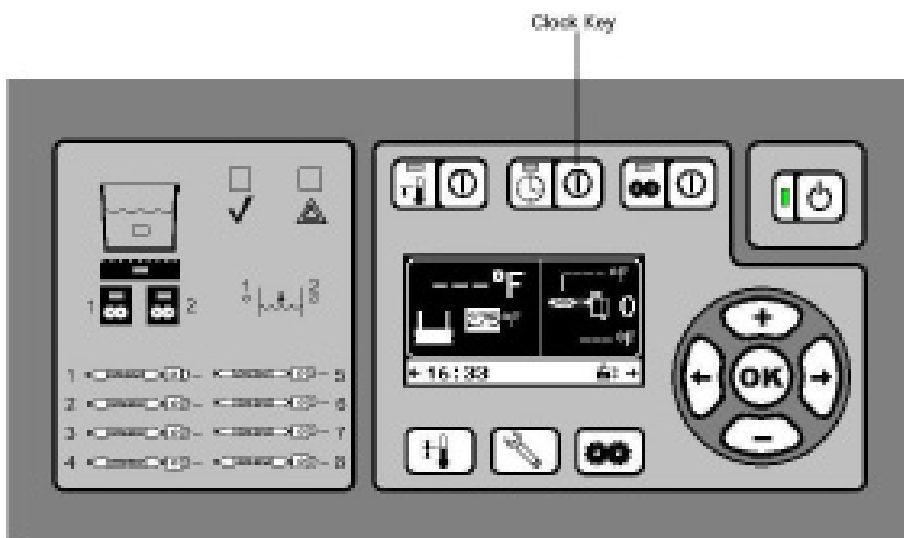
**Moving Through the Shift Time/Day Screens**



Continue to use the Right/Left, Up/Down, and OK Buttons to set all shift times and what shifts work on each day. Turn the Clock On and your unit is set to work with your shift times and days.

Moving Through the Shift Time/  
Day Screens - Continued

Press the Clock Button to enable all shift settings (the 7-Day Timer)

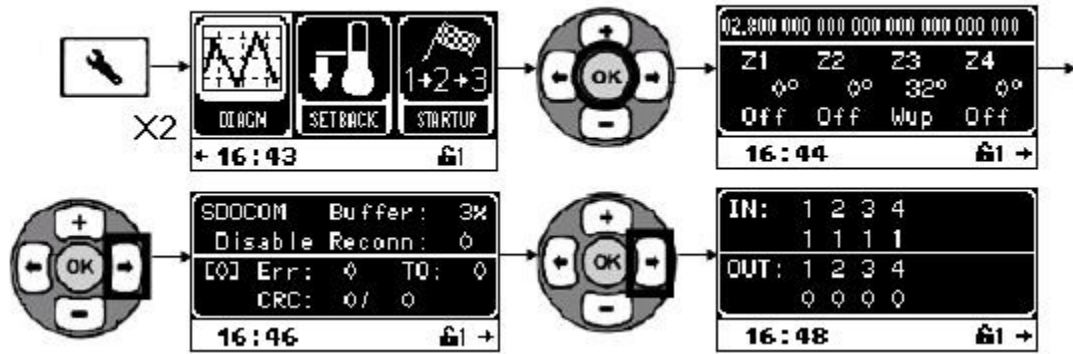


Do not turn off the main power to the control. The clock/timer will not operate if the power is off.

If the unit is set to 'Standby', the clock/timer will operate properly. In Standby, the display will show the status bar with the correct time of day.

## Diagnostics

The Diagnostics Screen shows the current software version as well as the current temperature and status of each zone.



## Setback

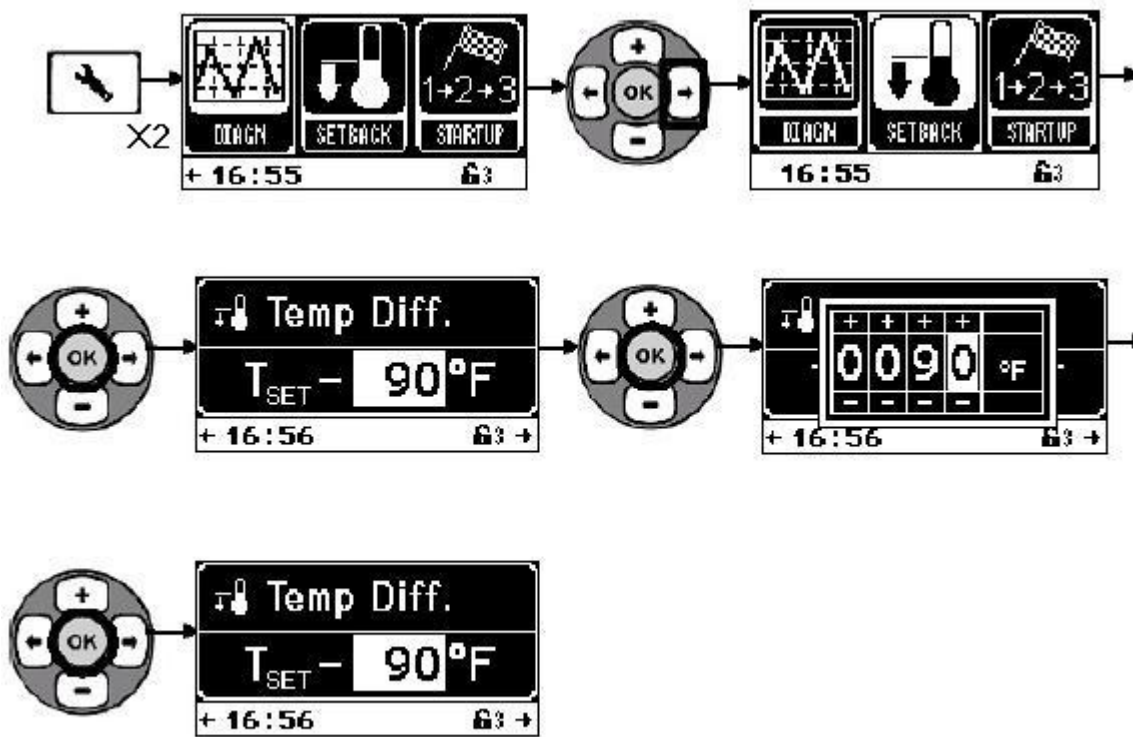
### Setback Temperature

The setback feature is used to reduce the temperatures of all zones by a given temperature differential to allow the hot melt to remain soft but not molten during periods of inactivity.

The setback temperature differential is relative to the temperature setpoint of each zone.

The setback temperature differential range is 18°F to 342°F (10°C to 190°C). The default factory setting is 90°F (50°C).

This parameter can be accessed in Password Level 2 or higher.



### Automatic Setback Timeout

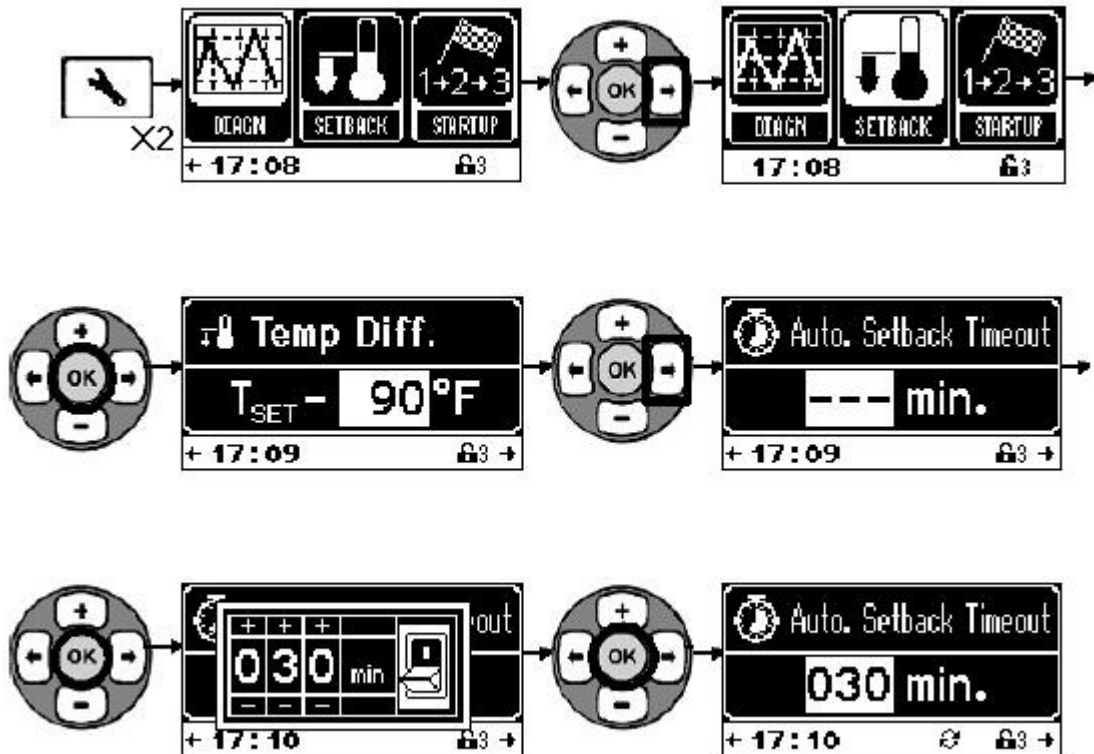
If the Automatic Setback Timeout input is enabled and the unit does not see an external input within the automatic setback timeout period, the unit will automatically go into setback.

The Automatic Setback Timeout feature is used only in conjunction with the Automatic Setback External Input. It is not used in manual or scheduled setback modes.

The automatic setback timeout range is 1 minute to 120 minutes. The default factory setting is “OFF.”

When the Automatic Setback is enabled, the Auto Setback symbol will start to flash in the status bar 2 minutes prior to going into setback. This will be the signal to the operator that the unit will go into setback if an external signal is not applied to the control that resets this feature.

This parameter can be accessed in Password Level 2 or higher.



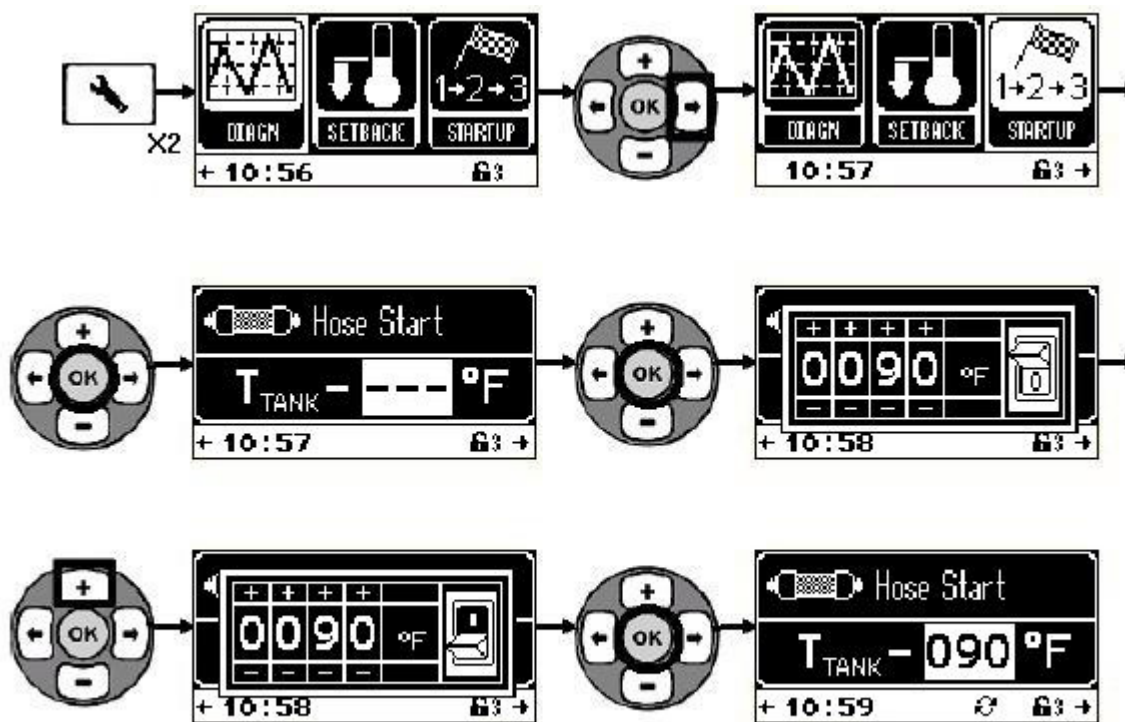
# Startup Setup

## Sequential Start – Hose

The Sequential Start function allows the hoses and the valves (guns) to begin heating after the upper platen (referred to as the Tank, below) reaches a specified temperature offset below the setpoint temperature. This feature is used to reduce adhesive degradation caused from heating adhesive in the hoses and valves for long periods while waiting for the tank to reach temperature.

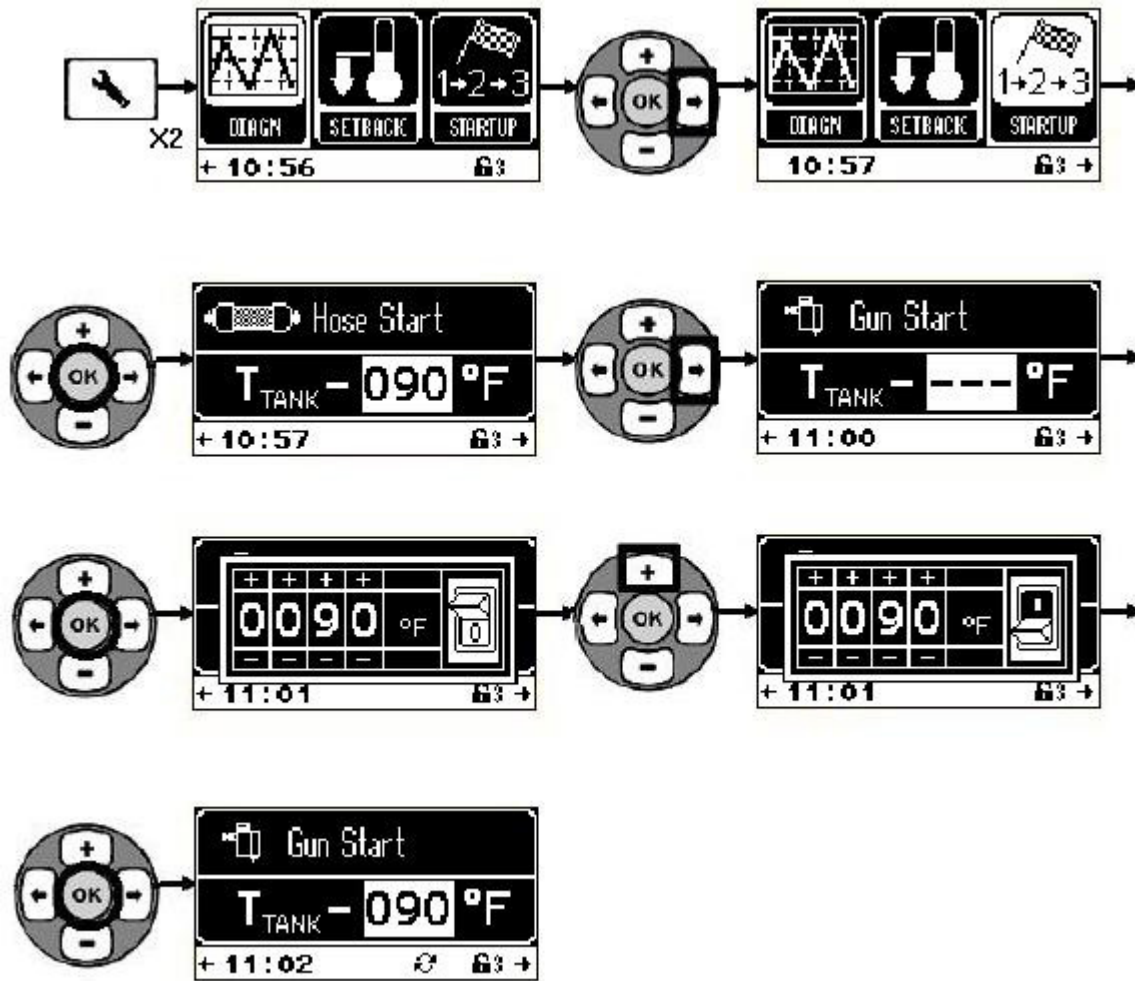
The sequential start range is 0°F to 450°F (0°C to 250°C). The default factory setting is OFF.

This parameter can be accessed in Password Level 2 or higher.





### Sequential Start – Valve

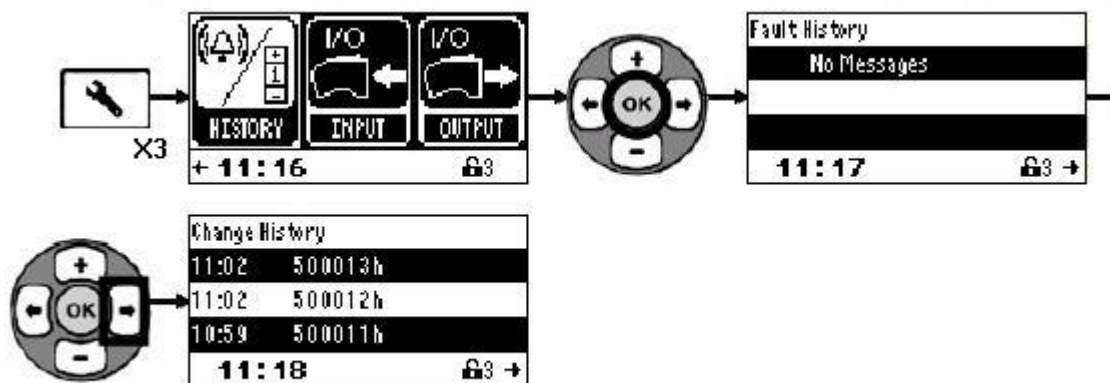


## History

The Fault History Screen keeps a log of all faults that occur with any zone.

The Change History Screen keeps a log of all parameter and setting changes.

The Fault History and the Change History are cleared when the unit is turned off.



If the an alarm condition (eg High Temperature Alarm) lasts for a duration of 2.5 minutes, the master control relay will be deactivated removing power from the heating zones, and the Fault History screen will appear. After correcting the cause of the fault, the unit must be powered off and back on again to reset the control and reactivate the master control relay.

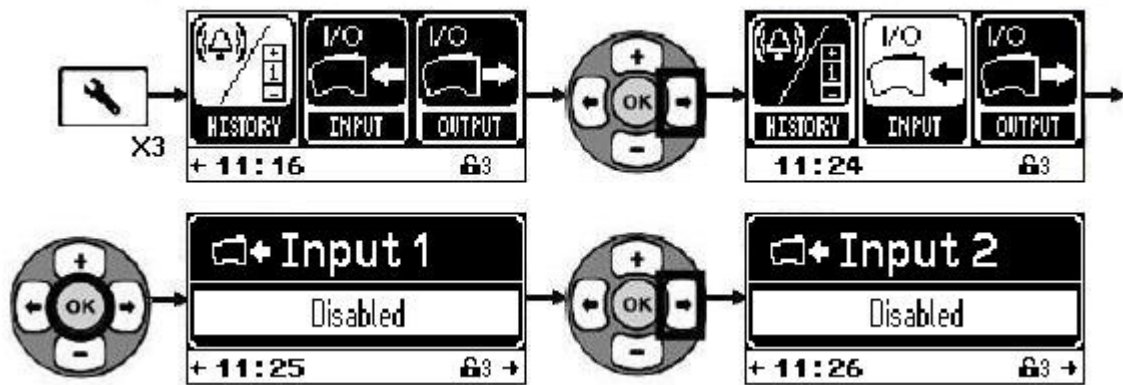
## User Inputs and Outputs

There are 4 individual outputs that can be configured to control remote devices as set up by the user. An output relay will turn on when the conditions of the selected feature are met. For example, if Output #1 is programmed for “System Ready”, the output relay will energize when the control reaches temperature and is ready to glue. See the chart below for user selectable output features.

There are also 4 individual inputs that can be configured to control something on the hot melt control when the control receives a dry contact input. For example, if Input #3 is programmed for “Pump On/Off”, the pump will remain off until input #3 receives a signal for it to turn on. This can be used to remotely control the glue pump.

See *Section 4 - Installation* for wiring details.

This parameter can be accessed in Password Level 3 or higher.

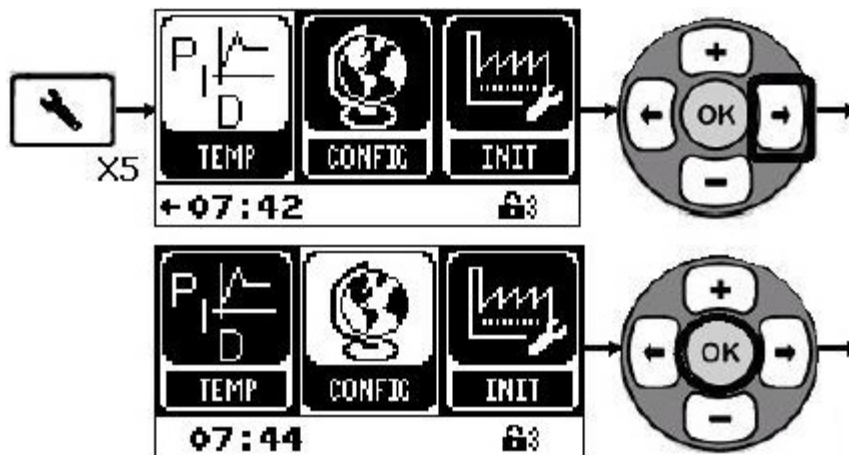


Input and Output Functions	
Inputs 1-4	Outputs 1-4
Disabled	Disabled
Hose and Gun #1 thru #6 On/Off	Setback On
All Heaters On/Off	Alarm
Pump On/Off	Ready & Pump On
Auto Setback	System Ready
Setback	Power On
	External Level
	Internal Level

The same procedure can be used to change the Outputs.

## Configuration

The Configuration Menu contains screens that allow the user to setup global parameters for the hot melt control. These configurations are shown below.



### Number of Hose Outlets

The number of hoses is used to set the control for how many hose/gun pairs are being used by the operator. This setting would be set at the factory before shipment.



### Auxiliary I/O

An Auxiliary I/O board (151XX661) can be ordered separately as an option to allow the operator to use four more user inputs and outputs. Once the board is installed, the Auxiliary I/O must be enabled. The factory default setting is “Disabled”. See Section 4 - Installation for Auxiliary I/O board connector. This parameter can be accessed in Password Level 2 or higher (see Appendix A Password Level).

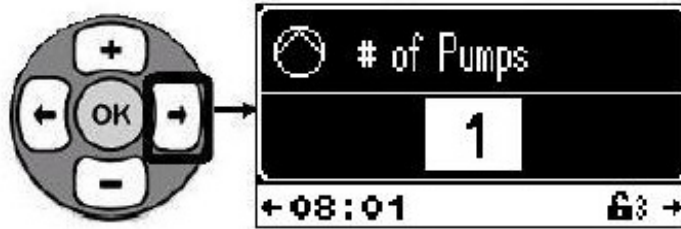
When the Auxiliary I/O is set to “Enabled”, the additional programmable inputs and outputs (5-8) will be activated.

When the Auxiliary I/O is set to “Disabled”, the additional programmable inputs and outputs (5-8) will be deactivated.



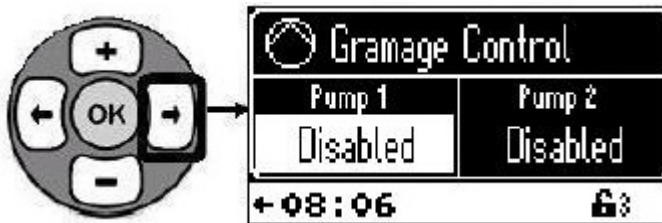
**Number of Pumps**

The total number of pumps for the unit can be configured in this screen. For this unit, the number is one. This setting will be set at the factory before shipment.



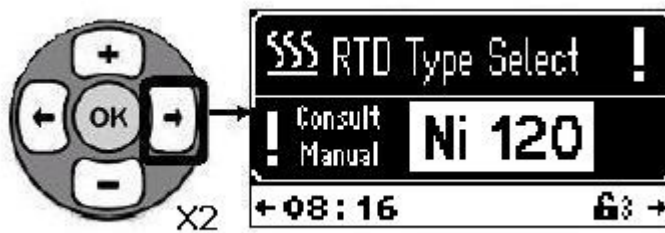
**Gramage Enable**

Gramage should ONLY be enabled in coating applications where the user wants the unit to automatically calculate the pump speed, to achieve a desired coat weight. It requires the user to enter the Pump Displacement (cc), Adhesive Density (gram/cc), speed reference value if tach mode is used, coating width (mm) and the desired coating weight (gram/m<sup>2</sup>). See Gramage Setup later in this section for more information.



**RTD Type Selection**

The RTD (resistance temperature detector) material type for the unit can be configured in this screen. For this unit, the RTD type is Ni120. This setting will be set at the factory before shipment.



# Pump Setup Menu



The Speed Gain value is adjustable from 0-200%. It scales the pump speed when using Automatic Pump Mode, when the pump speed is determined by the Auto Speed Input. The factory default setting is 100%.



The Creep Speed Setting is the speed that the pump will run when the Auto Speed Input is below the Minimum Speed Setting. This setting is generally used to maintain pressure while the production line is stopped.



The Minimum Speed Setting determines the minimum line speed at which the pump turns at the creep speed setting. The units are in either milli-volts or ft/ min depending on the Auto Speed Input type (Tach or Encoder).



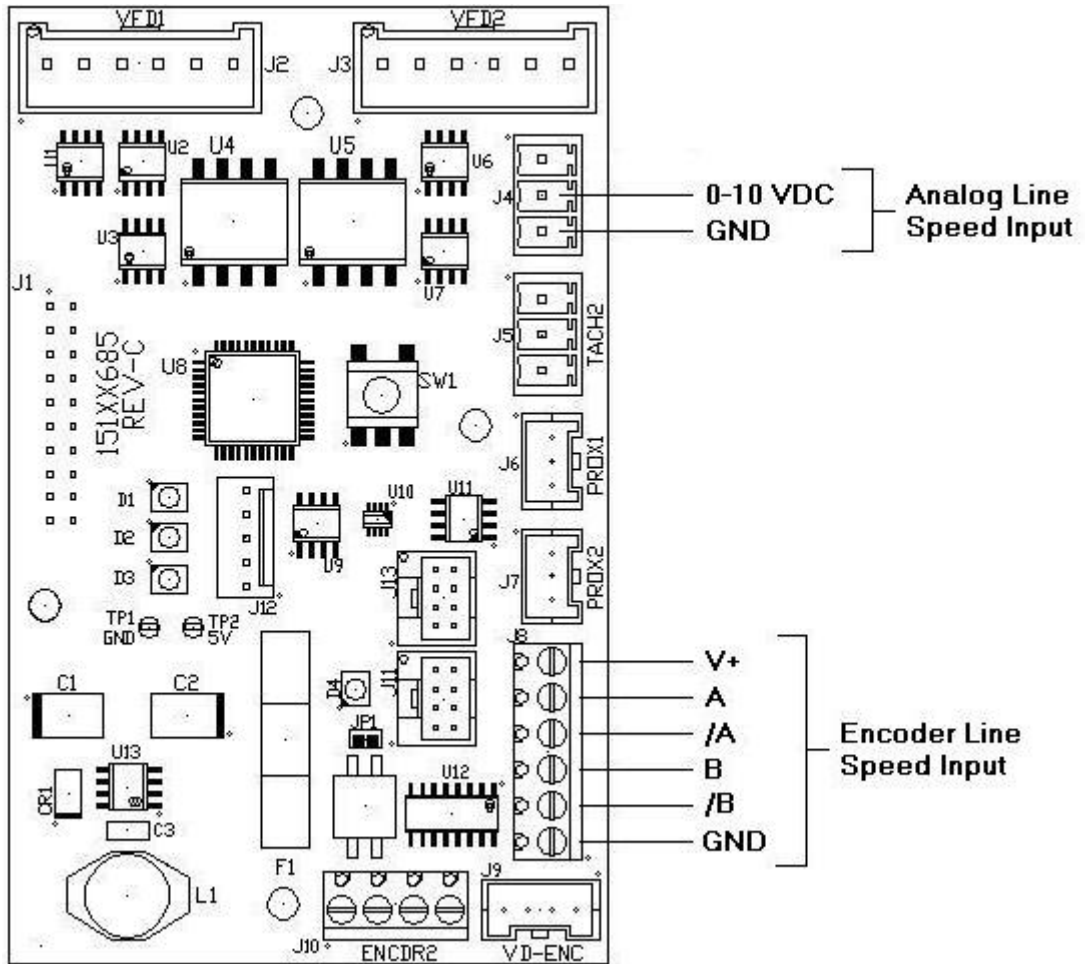
The Maximum Pump Speed is generally set at the factory. It is the motor RPM divided by the reducer size (or pump speed when the motor runs at 100%). It is used to calculate and display the actual speed of the pump on the Pump Status Screens.



Continued on Next Page

Pump Setup Menu - Continued

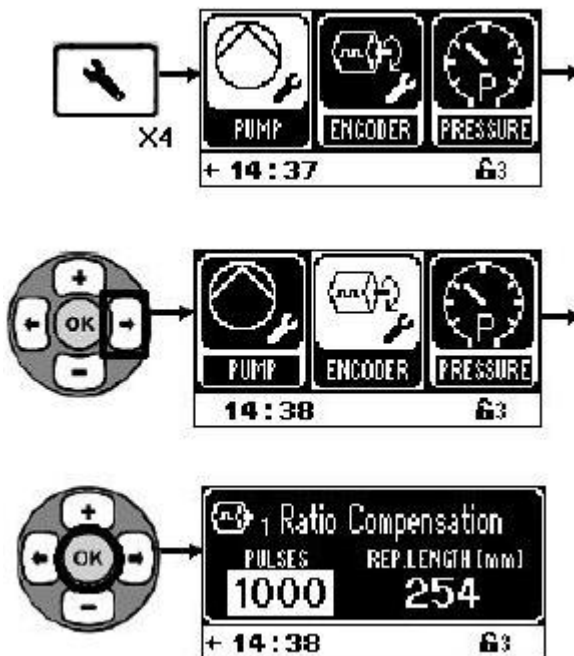
The Auto Speed Input setting is the type of line speed input used to adjust the pump speed. See the VFD board connections (below) to find the input connectors for the Auto Speed Input. Allowable settings and their corresponding connections are listed in the table, below.



VFD Board Connections

## Encoder Setup Menu

If an Encoder is used for the Auto Speed Input, then the Encoder parameters need to be set in this menu. Enter the Pulses per Revolution of the encoder and its circumference in this screen.

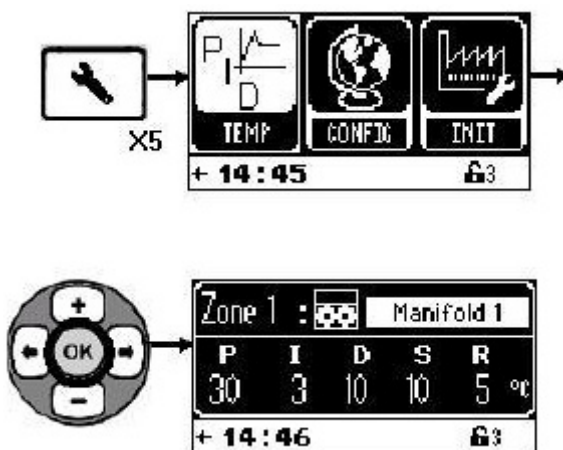


The measurement units for the encoder are selected in this screen. This is only available when the encoder is used.



## PID Setup Menu

### PID Settings





PID Settings - Continued

The PID settings are factory set for each zone. The factory PID settings complement Valco Melton’s Tank, Hose, and Gun watt densities (Tank 1 screen shown. Use left/right keys to access other screens).

**CAUTION!**



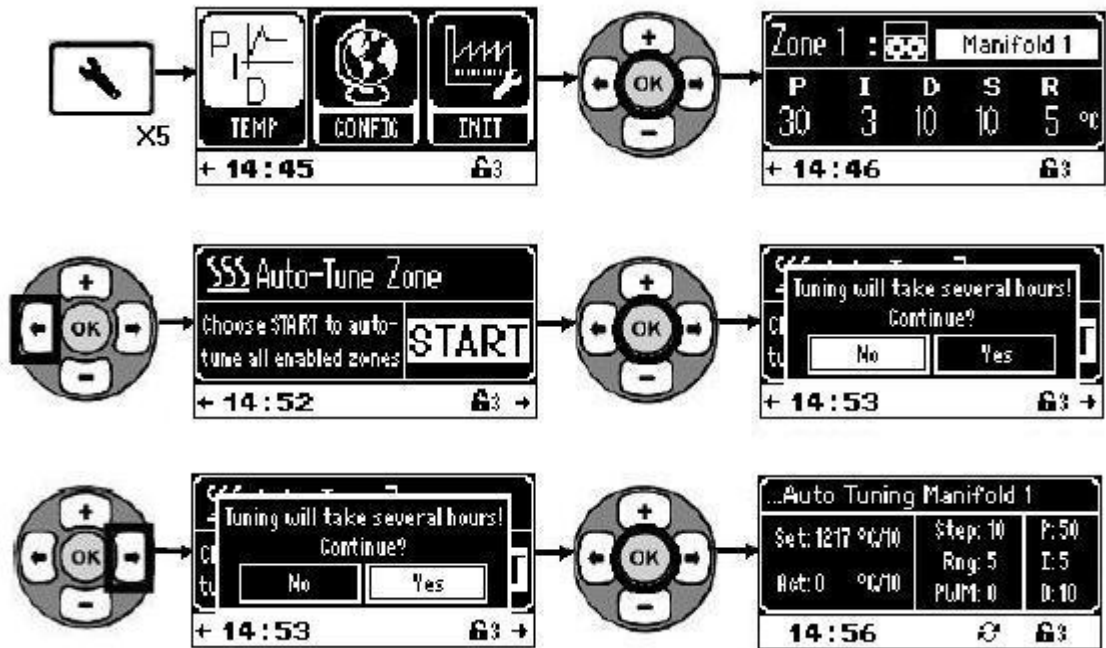
Changing these settings is not recommended. Changes should be made only by authorized ValcoMelton personnel.

In the case where a special temperature zone is used (example: coating head) and its temperature does not regulate properly, the Auto Tune function can be used to set the PID settings.

**AutoTune Feature**

The Auto Tune feature will optimize the PID settings for each zone that is enabled when the Auto Tune is started. The Auto Tune feature can take up to eight hours to complete and the power must not be turned off during this process. It is recommended to only enable zones that need their PID values adjusted to reduce the time taken for tuning.

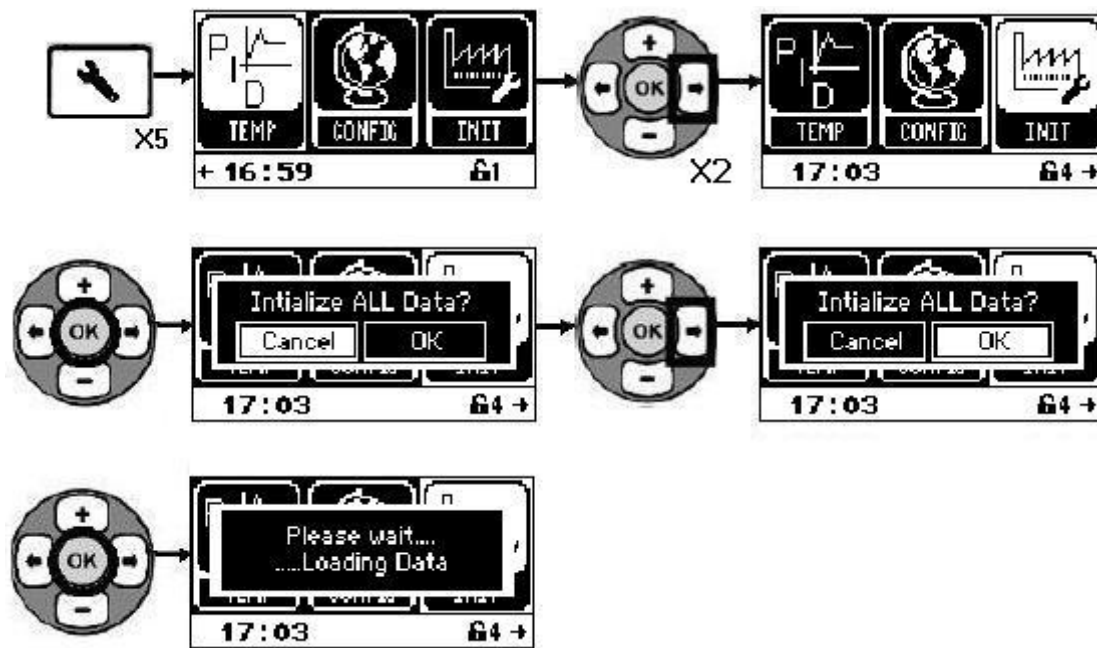
The AutoTune Feature is located in the PID Screen and can ONLY be accomplished under the password Level 3!



**i** Changing out gun/hose pairs or moving a gun or hose from it's original AutoTune position, will require that AutoTune be run again to optimize the PID settings again.

## Initialize Screen

The Init or Initialize Screen is used to reset ALL of the control parameters back to the factory settings. When “OK” is selected to Initialize ALL Data, the set up wizard will take the user through the control initialization to reconfigure the hot melt control as if it were a brand new installation. From this point, the user will be able to select number of hose / gun pairs, piston or gear pump, etc.



## Restoring Factory Default Settings

To restore the factory default settings, follow these steps:

**CAUTION!**



Restoring the factory default settings will permanently erase changes made to any parameter or setting!

1. Switch off power to the unit.
2. Power the unit back up while pressing and holding the Setup Button and the OK Button on the keypad. The buttons can be released once the start-up screen appears.

## Adjusting the Pressure Control Valve

The S-DRUM 200L unit contains a single-stage, external, manually adjustable relief valve (see figure below). Additionally, the S-DRUM 200L unit can use an optional pneumatic relief valve (contact Valco Melton for details).

The single-stage relief valve is a simple safety device which protects the system from excessive pressure. The single-stage relief valve is commonly used for systems that are applying adhesive continuously (laminating).

### WARNING!



Do not adjust the fixed pressure relief valve. This protects the system from excessive pressure buildup. Otherwise, serious personal injury or equipment damage could occur.

## Adjusting the Single-Stage Relief Valve

To adjust the single-stage relief valve, follow these steps:

### CAUTION!



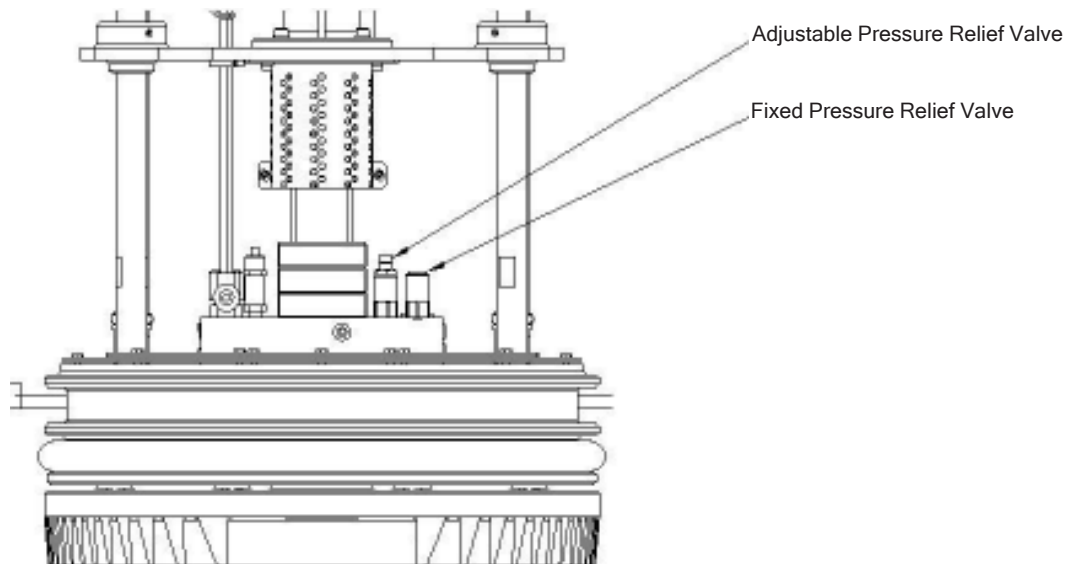
Do not overtighten adjusting screw. Otherwise, equipment damage could occur.

1. Turn the pump motor off.
2. Loosen the locknut on the pressure relief valve.

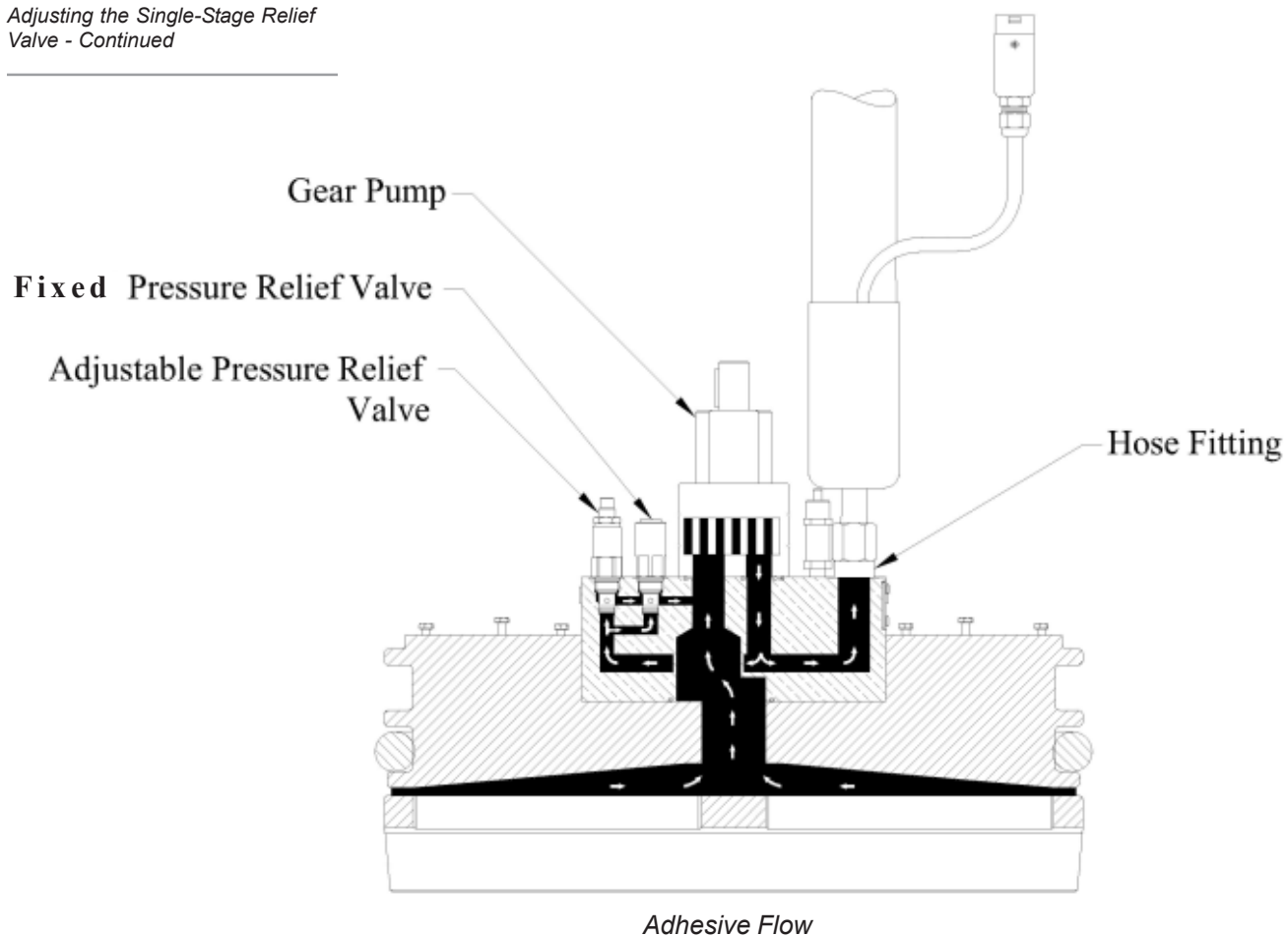


The physical location of these pressure relief valves may be reversed in some units.

3. Turn adjustment screw clockwise to increase pressure, counterclockwise to decrease pressure.
4. Tighten the locknut on the pressure relief valve.
5. Turn on pump motor and resume operation.



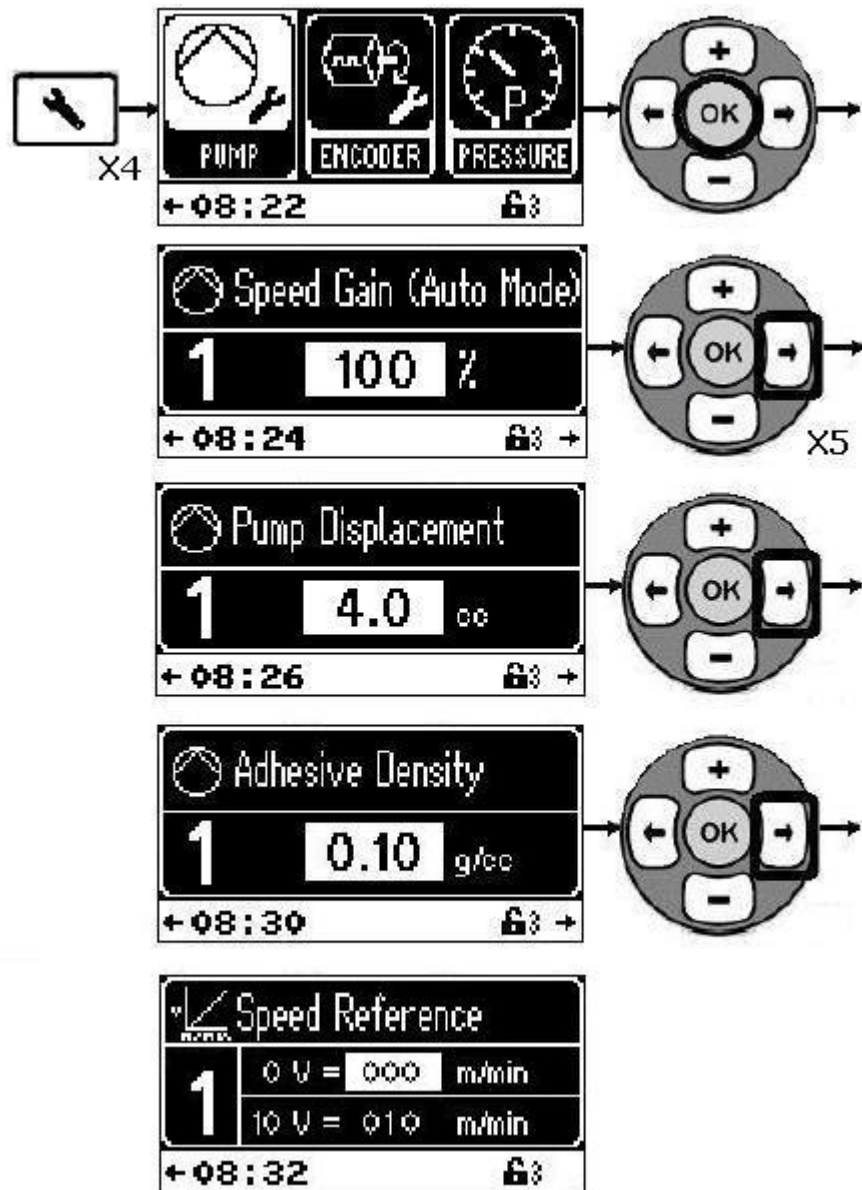
Adjusting the Single-Stage Relief Valve - Continued



## Gramage Feature

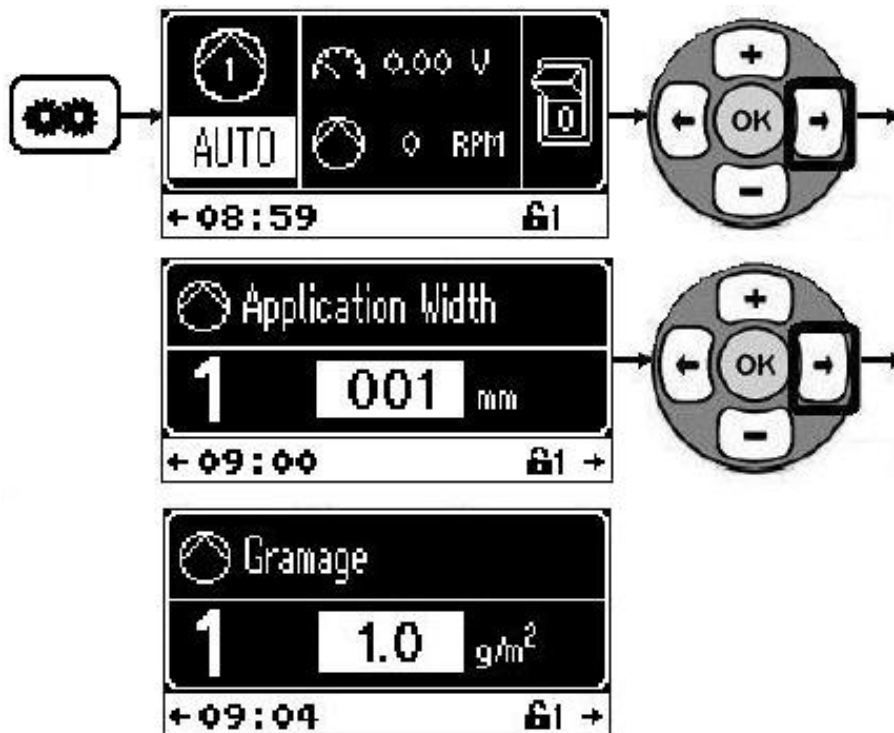
The Gramage Feature should ONLY be enabled in coating applications where the user wants the unit automatically calculate the pump speed to achieve a desired coat weight. It requires the user to enter the Pump Displacement (cc), Adhesive Density (gram/cc), speed reference valve if tach mode is used, coating width (mm) and the desired coating weight (gram/m<sup>2</sup>). The “Gramage Enable” for the appropriate pump must be enabled in order to view these setting screens, see Gramage Enable earlier in this section for more information.

The Pump Displacement, Adhesive Density and Speed Reference must be set in the “Pump Setup” menu. This parameter can be accessed in Password Level 2 or higher (see Appendix A Password Level).



Gramage Feature - Continued

The Application Width and Gramage (Application Weight) must be set in the “Pump Menu”. This parameter can be accessed in Password Level 1 or higher (see Appendix A Password Level).



---

# SECTION 6 - OPERATION

---

**WARNING!**



It is recommended that Section 5 - Setup is read, understood and followed before attempting to read this section and operate the unit. OTHERWISE, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

**WARNING!**



This unit should only be used by qualified personnel who understand all of the procedures and are familiar with the necessary safety measures. Make sure that the person operating the machine is properly protects and that all safety instructions are followed. OTHERWISE, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR

---

## Unit Startup

---

1. Turn on the unit by turning the power disconnect switch to the "ON" position.

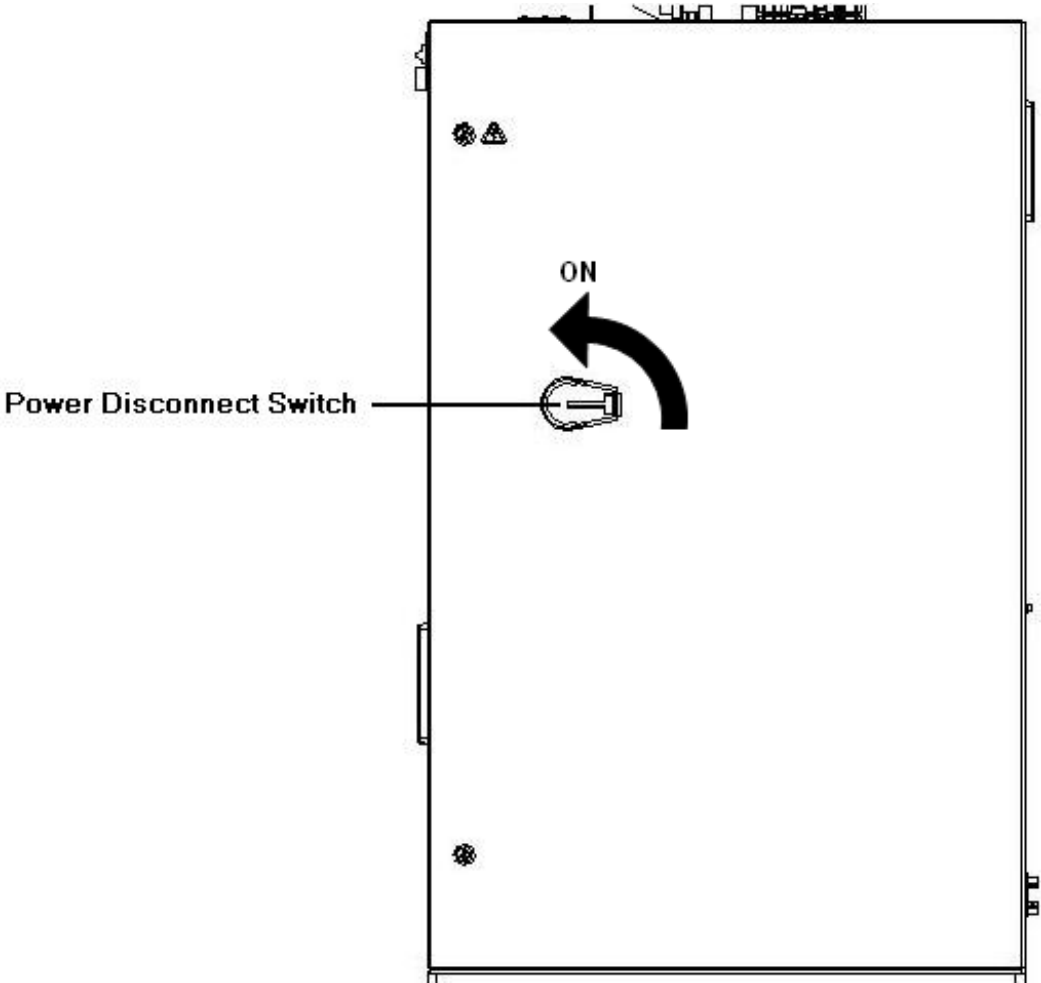


Figure 6-1. Main Power Disconnect Switch

## Unit Startup - Continued

1. If the power disconnect switch is on but there is nothing on the display, the unit is in Standby mode. Push the Standby key on the control and ensure the LED changes from orange to green.

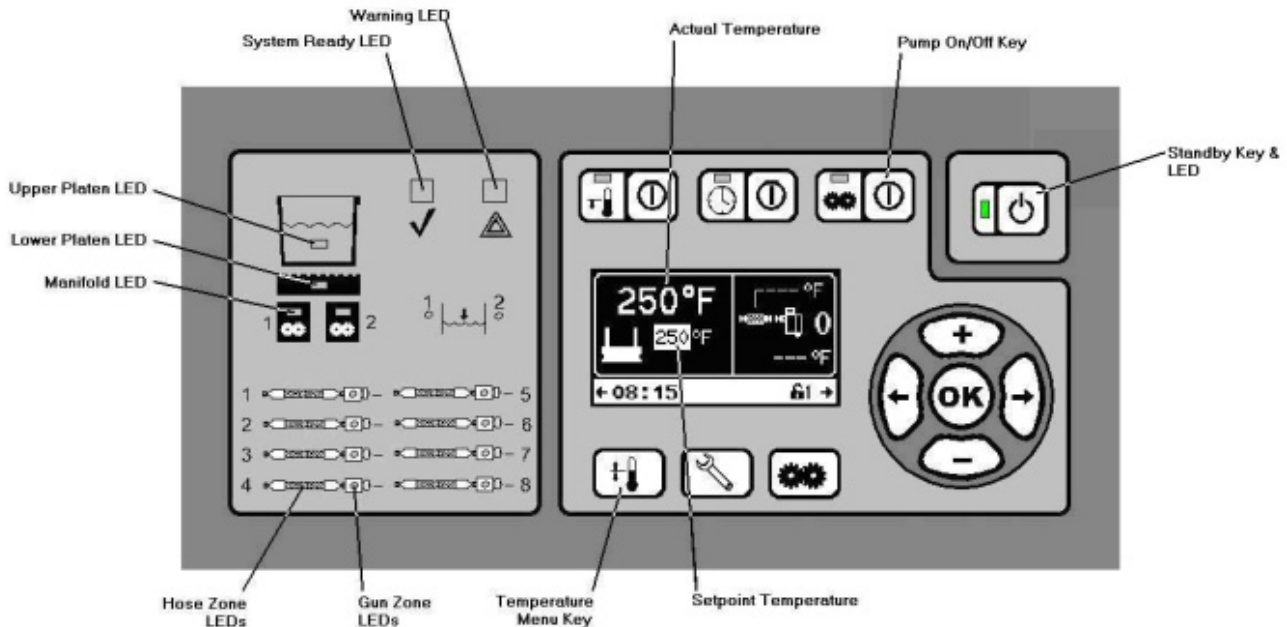


Figure 6-2. Temperature Controller Important Operation Keys

1. Set the temperatures of all of the connected heating zones (platens, manifold, hose etc.) See Section 5 - Setup for details on how to adjust the temperature values.
2. Wait for the system to heat up and for the system ready LED to illuminate.

**WARNING!**

Hot surfaces! Do not touch unless necessary! Use caution while performing the operation procedures in the following sections. Wear protective gloves and goggles at all times. OTHERWISE, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.



## Raising the Platen

1. Change the position selector to "UP" to raise the platen.

**WARNING!**



Ensure the air pressure is set properly before proceeding (see Section 4 - Installation for more details).

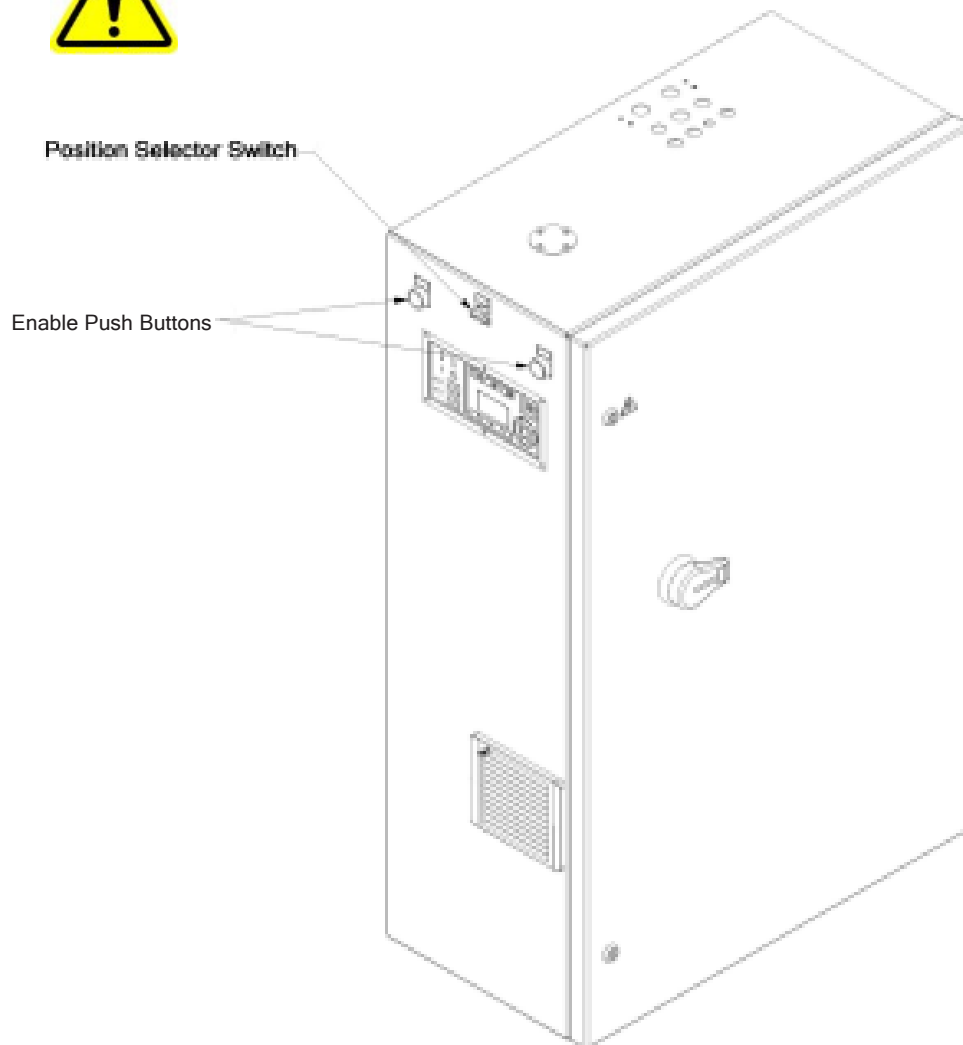


Figure 6-3. Cylinder Direction and Operation Switches

2. Press the two (2) enable push buttons with two hands until the platen has reached the maximum height.

**WARNING!**



Ensure that the Blow-Off valve is activated. The valve prevents a vacuum from being created in the drum. OTHERWISE, DEATH, SERIOUS PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

3. Once the platen has raised fully, install the drip tray, install the drip tray into the two (2) mounting brackets to catch the drops of adhesive.

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 Raising the Platen - Continued
 

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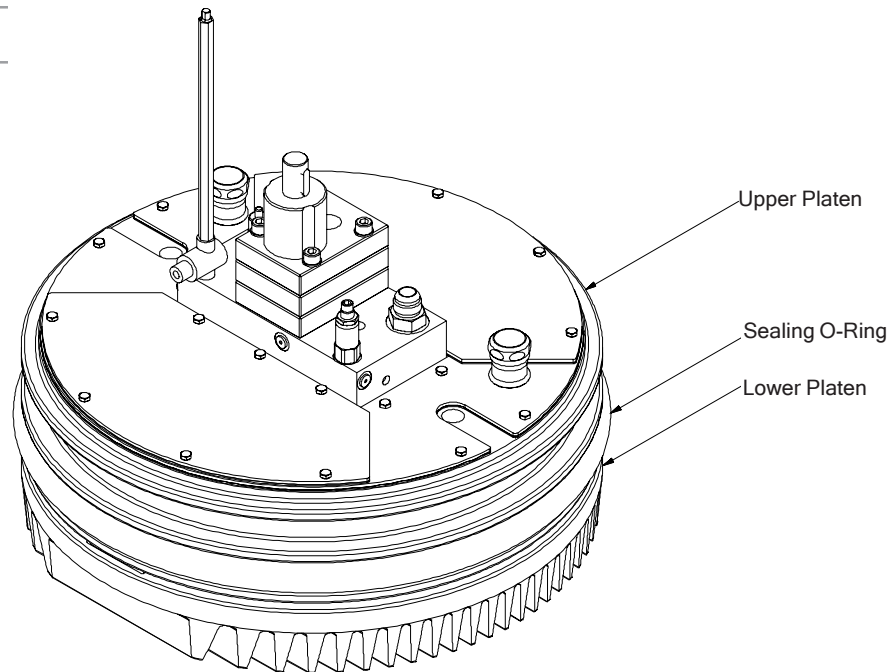


Figure 6-4. Platen Assembly Main Components

---

**Changing the Drum**


---

1. Open the drum clamps on the unit and remove the empty drum.
2. Dispose of the empty drum according to local regulations.
3. Push the new drum into the drum clamp until the drum hits the back of the clamp.
4. Close the drum clamp and ensure the drum is secure.

---

**Lowering the Platen**


---

1. Liberally apply high temperature o-ring lubricant to the platen o-ring.
2. Place the bleed valve drip tray underneath the output of the bleed valve.
3. Open the bleed valve (see Figure 6-5).
4. Change the position selector to "DOWN".
5. Press the two (2) enable push buttons with two hands until the platen is inside the drum and moves automatically.
6. Close the bleed valve once molten adhesive begins to come out.

---

Lowering the Platen - Continued

---

**Warning!**

Do not allow bleed valve drip tray to overflow, or damage to equipment could result.

7. Turn on the pump by pressing the Pump On/Off key (this may occur automatically if the Automatic Pump Enable setting is turned ON, see Section 5 - Setup for more details).

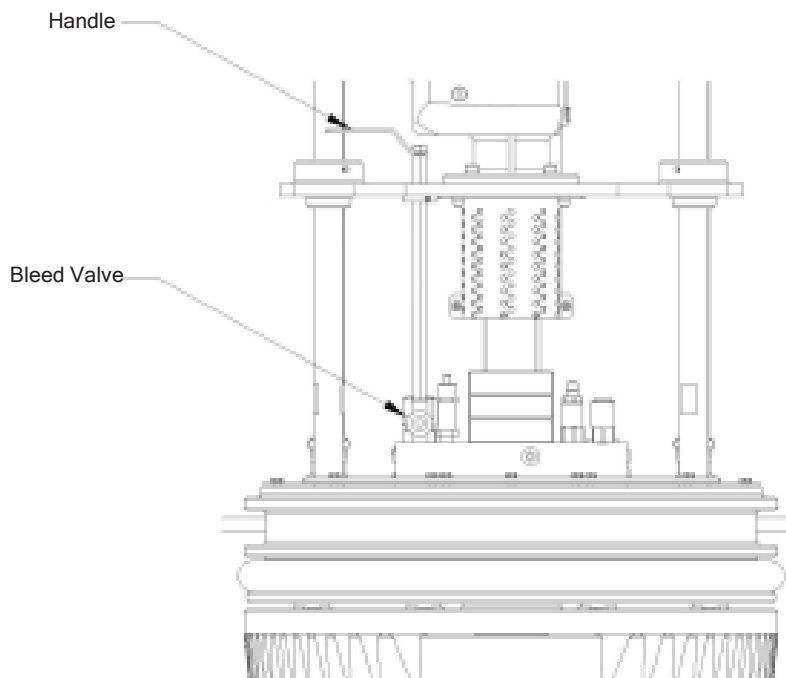


Figure 6-5. Bleed Valve Location

The pump will only turn on if the following conditions are met:

- All of the heating zones are at the setpoint temperature.
  - The position selector is in the down position.
  - The platen is between the second and fourth proximity switches.
8. Adjust the motor speed if necessary (see Section 5 - Setup for more details).
  9. Repeat the procedure "Raising the Platen" when the platen reaches the bottom of the drum.

---

# SECTION 7 - MAINTENANCE

---

This section contains guidelines and procedures for maintaining the S-DRUM 200L hot melt unit. Your hot melt system will run longer and more consistently if a preventative maintenance program is used. Daily attention to the maintenance of your system is recommended.

---

## General

---

ValcoMelton recommends the following general maintenance procedures:

- Remove adhesive spills immediately. (Use a putty knife while the material is still soft.)
- While the unit is still hot, **but not operating**, use cheesecloth to remove material leaking from the pump seal and other connectors. External leakage indicates that service is required.
- Periodically clean the exterior of the S-DRUM 200L hot melt unit.
- Inspect the exterior of the unit for any noticeable damage that may cause a system malfunction.

---

## Cleaning the Exterior of the Unit

---

To clean the exterior of the S-DRUM 200L hot melt unit, follow these steps:

**CAUTION!**



Never hose or steam-clean the unit. If the surrounding area is cleaned in this manner, protect the unit by covering it with plastic or other waterproof material. Failure to comply could result in damage to the equipment

1. Turn off the main power.
2. Using a damp cloth, clean the cabinet with a mild soap-and-water solution.

---

## Electrical Cabinet Maintenance

---

The electrical cabinet has a fan (with filter) and exhaust grid (with filter). Periodically, the exhaust filter needs to be cleaned.

Use a vacuum cleaner to clean the blades on the fan.

To clean/replace the air filter, do the following:

1. Remove the exhaust cover on the right side of the electrical cabinet (back of the unit; see Figure 7-1).
2. Remove and inspect the filter. If the filter is dirty, wash and dry it.
3. Place the filter back inside of the cabinet and reattach the exhaust cover.

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 Electrical Cabinet Maintenance -  
 Continued
 

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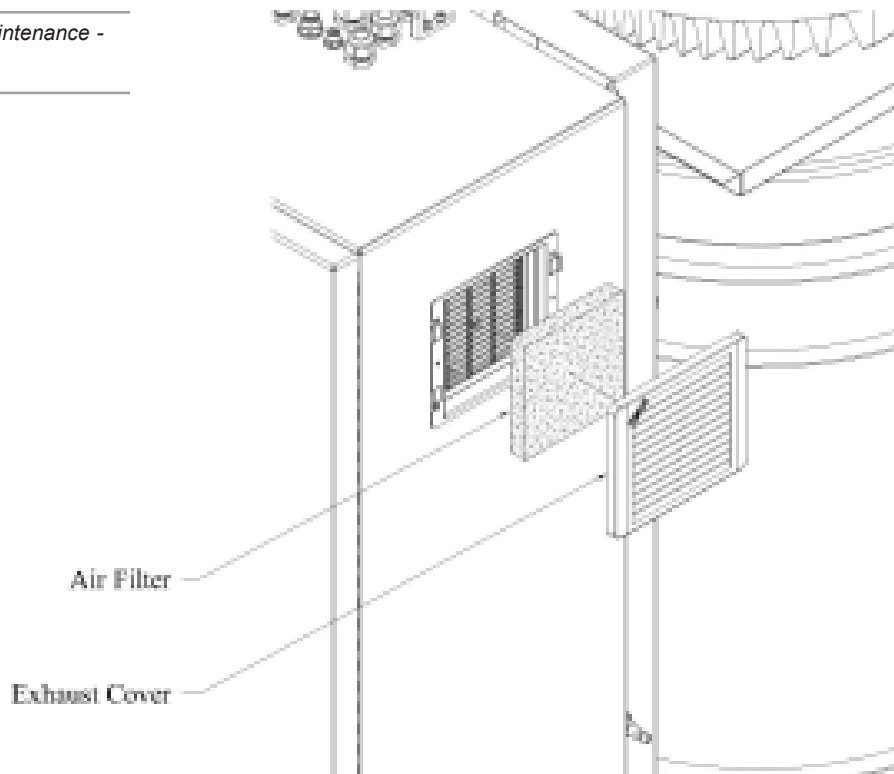


Figure 7-1. Electrical Cabinet Fan Filter

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## Pneumatic System Maintenance

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The main air inlet for the entire system is filtered. Periodically the regulator needs to be cleaned and drained.

To drain the regulator, do the following:

1. Lower the platen.
2. Disconnect the incoming air to the system.
3. Place a container under the regulator.
4. Pull the knob on the bottom the regulator and allow all of the fluid to drain.



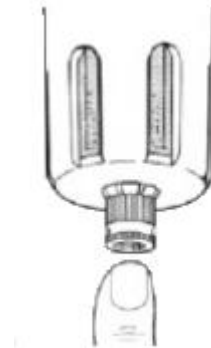
Figure 7-2. Regulator Draining - Pull

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*Pneumatic System Maintenance -  
Continued*

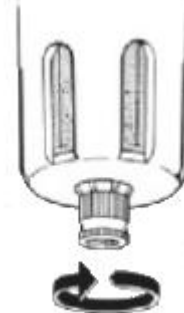
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5. If the fluid is not draining, press the button to drain. Use this method when the bowl is pressurized



*Figure 7-3. Regulator Draining - Push*

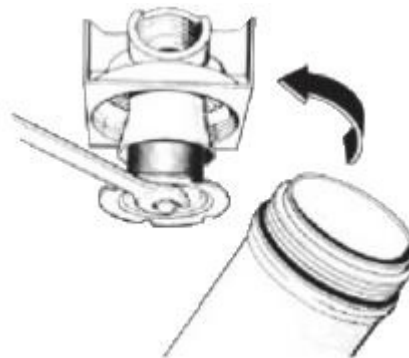
6. Turn the knob counter-clockwise to close the knob.



*Figure 7-4. Closing the Regulator Drain*

To clean the filter on the regulator, do the following:

1. Lower the platen.
2. Disconnect the incoming air to the system.
3. Remove the bottom section of the regulator.



*Figure 7-5. Regulator Filter Change*

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*Pneumatic System Maintenance - Continued*

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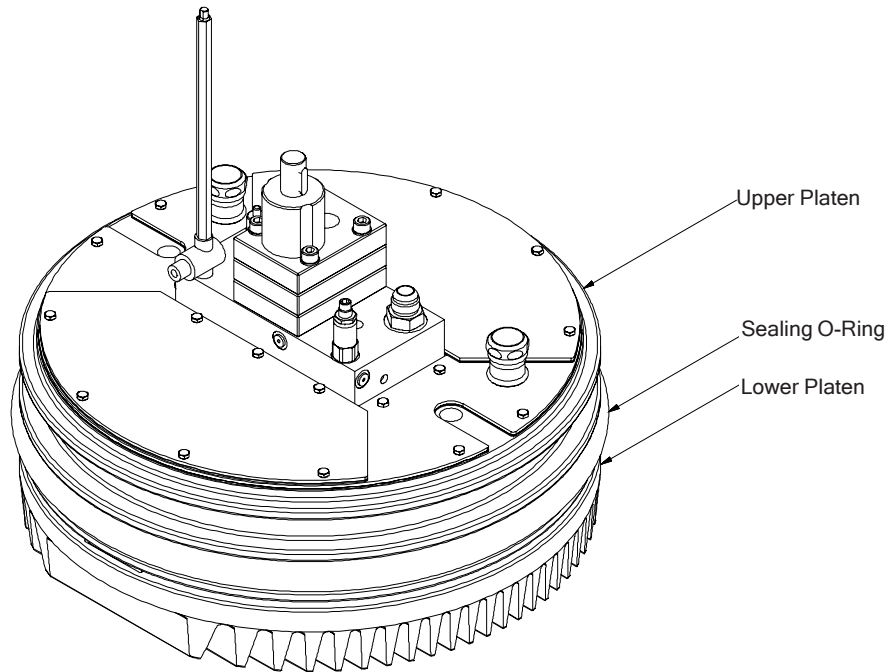
## Platen Maintenance

---

5. Remove the bowl from the regulator.
6. Clean or replace the filter and reassemble.

Inspect the lower platen for charred adhesive every time a drum is changed. Clean if necessary; do not use tools that may scratch the coating.

The sealing o-ring needs to be lubricated using a high temperature lubricant that is compatible with the adhesive. This should be done every time a drum is changed.



*Figure 7-6. Platen Assembly Main Components*

When the system is not being used for a prolonged period of time, the system should be flushed using a purge that is recommended by the adhesive manufacturer. This will prevent adhesive from charring and hardening.

---

### **Bleed Valve Maintenance**

---

Inspect the bleed valve and ensure that the adhesive inside is not charred every time a drum is changed. There is a tray to catch the adhesive that is released from the bleed valve and should be cleaned as needed.

---

### **Platen Drip Tray Maintenance**

---

Clean the drip tray every time a drum is changed. Do not use tools that may scratch the coating.

## Changing the Adhesive

### CAUTION!



When changing adhesives, always consult adhesive suppliers to check compatibility between adhesives. Failure to comply could result in damage to the equipment.

To change the adhesive, follow these steps:

1. If the old adhesive and the new adhesive are compatible, pump enough of the new adhesive through the system to ensure that all of the old adhesive has been cleared out (generally 3 to 5 lbs. or 1.1 to 1.9 kg).
2. If the two materials are not compatible, flush the system (see “Flushing the System” below).

## Flushing the System

The system needs to be flushed:

- When changing to an adhesive that is not compatible with the previously used adhesive
- When the unit is not used for a prolonged period
- After using PUR Materials

Use a purge recommended by the adhesive manufacturer.

### CAUTION!



If a cleaning solution is to be flushed through the hot melt system, it must be compatible with silicone, Viton, Teflon, carbon graphite, brass, steel and aluminum. Consult the adhesive manufacturer to find out which cleaning solutions are recommended for the adhesive you are using. Failure to comply could result in damage to the equipment.

To flush the system without a purge system, follow these steps:

1. Place the drum into the clamps.
2. Lower the platen.
3. Set the temperature of the platens to the proper setting for the purge material.

### WARNING!



If the system is hot, wear insulated gloves and eye protection when disconnecting hoses. Trapped air pockets may cause adhesive spray and result in personal injury (burns) or death.

4. Make sure that the pump is turned off.



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*Flushing the System - Continued*

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5. Manually activate the applicators to relieve any system pressure buildup if the system is hot (if applicable).
6. Disconnect glue hoses from applicators/unit, and collect purged material with an appropriate container.
7. Turn off the heating zone for the applicators.
8. Allow the unit and hoses to reach temperature.
9. Turn the pump on.
10. Pump purge material through the unit and glue hoses until discharged material is free of particles.
11. Turn the pump off.
12. Turn on the heating zones for the applicators.
13. Allow the applicators to reach temperature.
14. Reconnect the glue hoses to the applicators/units.
15. Turn the pump back on and activate the applicators to purge remaining adhesive through the valve(s).
16. Reset the temperature control to the correct setting for the material you are using.



The new material can now be pumped through the system.

---

## Parts Replacement

---

**WARNING!**

If the system is hot, wear insulated gloves and eye protection when disconnecting hoses. Failure to observe could result in personal injury, death, or damage to equipment.

Occasionally, parts may need to be repaired or replaced. The following paragraphs contain instructions for removing parts from the hot melt unit. For drawings and a complete list of part numbers, see *Section 10 – Part Number List*.

### Changing Fuses

In the event that a fuse must be replaced, simply remove one of the spare fuses from the included installation kit and insert the fuse in the appropriate socket. If the blown fuse is on the 12-zone board, see Figure 7-7. If not, see *Section 10 - Part Number List*.

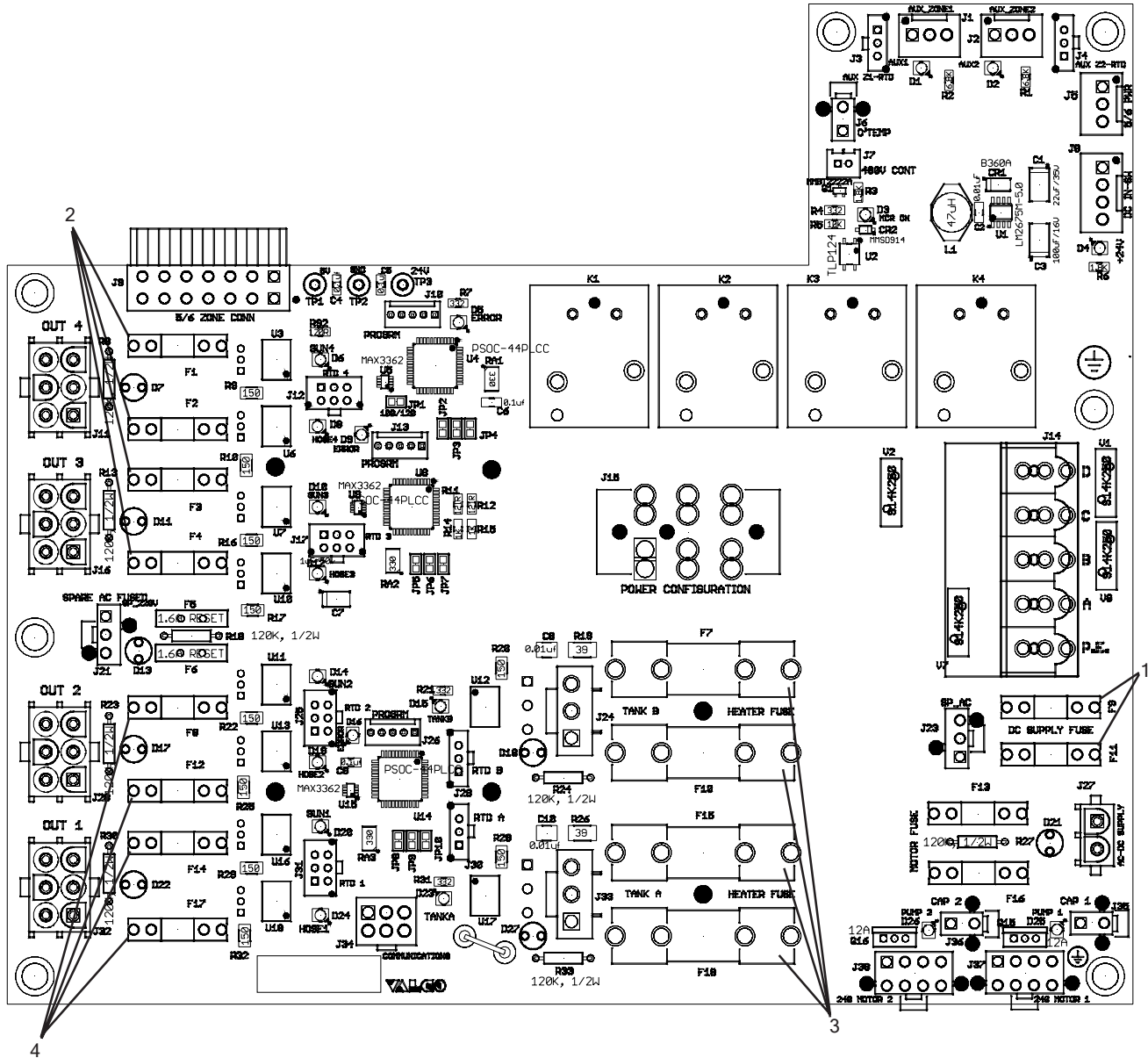


Figure 7-7. Main Board Power Fuses

# SECTION 8 - TROUBLESHOOTING AND REPAIR

## Troubleshooting

**WARNING!**



Only qualified personnel who understand the processes and is familiar with the safety measures involved should troubleshoot the equipment. OTHERWISE, DEATH, PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT COULD OCCUR.

**WARNING!**



Troubleshooting may require the unit to be energized. Therefore, all necessary safety precaution should be taken while working on the system. OTHERWISE, DEATH, SEVERE PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT COULD OCCUR.

This section includes some of the common faults that can occur with the S-drum hot melt unit. If the problem can not be solved with the information in this manual, contact your Valco Melton representative.

Problem	Possible Cause	Possible Solution
Machine does not power up	Main power to the unit is not connected	Connect the main power to the unit according to the wiring schematic.
	Unit is switched off	Turn on the unit using the main disconnect
	Insufficient amount of voltage being applied to the unit supply	Verify the incoming voltage matches what is indicated on the nameplate ( $\pm 10\%$ ).
Unit is not enabled	Platens have overheated	The thermostat was triggered. Allow the unit to cool down and restart.
Motor will not start	Voltage not being applied to frequency drive (VFD)	Check that the supply voltage to the VFD is 240VAC $\pm 10\%$ .
	Voltage not being send from VFD to the motor	Check the voltage to the motor.
	Heating zones are over/under temperature	Wait for all heating zones to reach the set temperature.
	Selector not in the DOWN position	Switch the selector to the DOWN position, and press the "Enable" pushbuttons.
Zone does not heat up	Zone is turned off or not set to the correct temperature	Check the temperature setting for the zone and verify that the zone is turned on.
	Zone not heating	Check for blown fuse.
	Hose/Gun connector is unplugged/connected incorrectly	Check the pins on both connectors to ensure they are in good condition.
	Temperature sensor is faulty	Check the resistance of the sensor. If faulty, replace sensor.
Platen lifts drum	Drum clamp is not secured	Tighten drum clamp.
	Raising speed too high	Adjust "RAM" pressure.
	Blow-off Valve clogged	Clean the Blow-off Valve.
	Blow-off Valve pressure too low	Set the pressure to at least 40 psi.

## Troubleshooting - Continued

Problem	Possible Cause	Possible Solution
Adhesive pressure is too high	Pressure relief valve set too high	Loosen the pressure relief valve adjustment screw until the desired pressure is obtained. Replace pressure relief valve.
No air/adhesive comes out of the bleed valve when opened	Bleed valve is clogged/broken	Clean/replace bleed valve.
No adhesive output	Adhesive not hot enough	Check temperature setting is correct. Ensure that platen and manifold heaters have power. Check for blow fuses.
	Pump not moving	Check system for ready condition. Check blown fuse.
	Selector not in the DOWN position	Switch the selector to the DOWN position, and press the "Enable" pushbuttons.
	Cold glue hose or damaged hosed	Replace hose.
	Cold applicator	Check for blown fuse and/or defective heater.
	Clogged applicator	Service applicator system.
	Temperature control malfunction	Replace temperature control.
Fuming or smoking of adhesive	Operating temperature exceed adhesive's recommended temperature	Keep setpoint temperature within recommended range. Consider another adhesive.
Uneven flow of adhesive to applicators	Adhesive viscosity is too high	
	-Platen and manifold temperature too low	Raise platen and manifold temperatures in accordance with adhesive manufacturer's specifications.
	-Wrong adhesive	See adhesive manufacturer's recommendations.
	Adhesive overheated	Reduce platen and manifold temperatures in accordance with adhesive manufacturer's specifications.
	Glue hoses not at the same temperature	Check temperature setting in the control.
	Different pressure drop through each hose	
	-Hoses not the same length	Use same length hoses.
	-Crimped hose(s)	Replace hose(s).
	-Leaking hose(s)	Replace hose(s).
	Adhesive supply low	Change drum.
	Manifold partially clogged	Clean and flush system.
	Nozzles partially clogged	Inspect system for charred adhesive and foreign matter. Clean and flush system.

## Troubleshooting - Continued

Problem	Possible Cause	Possible Solution
Cold adhesive on product after dispensing	Adhesive temperature is too low	Raise the platen, manifold, hoses and applicators temperatures in accordance with adhesive manufacturer's specifications.
	Nozzles are too far from gluing surface	Move the applicator closer to the gluing surface.
Too much adhesive output at the start and end of the bead	Adhesive pressure is too low	Adjust the pressure by increasing the pressure relief valve.
	Applicator is partially clogged	Clean the applicator nozzles.
	Nozzles are too far from gluing surface	Move the applicator closer to the gluing surface.
	Nozzle outlet is too large	Change to a smaller nozzle size
Bead breaks during dispersion	Adhesive viscosity is too high	
	-Platen and manifold temperature too low	Raise platen and manifold temperatures in accordance with adhesive manufacturer's specifications.
	-Wrong adhesive	See adhesive manufacturer's recommendations.
	Adhesive temperature is too low	Raise the platen, manifold, hoses and applicators temperatures in accordance with adhesive manufacturer's specifications.
	Adhesive is old	Change adhesive
Bead with fine threads	Adhesive temperature is too low	Raise the platen, manifold, hoses and applicators temperatures in accordance with adhesive manufacturer's specifications.
	Adhesive is old	Change adhesive
	Nozzles are too far from gluing surface	Move the applicator closer to the gluing surface.
	Adhesive viscosity is too high	
	-Platen and manifold temperature too low	Raise platen and manifold temperatures in accordance with adhesive manufacturer's specifications.
	-Wrong adhesive	See adhesive manufacturer's recommendations.
Frequent nozzle obstruction	Adhesive is charring	Raise the platen, manifold, hoses and applicators temperatures in accordance with adhesive manufacturer's specifications or change adhesive type.
	Pre-existing obstructions	Clean and flush system.
	Applicator filters are dirty	Clean/replace the filters.

---

## Repair

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**WARNING!**

All of these operations should be performed with the machine switched off at the main breaker and disconnected from the incoming air, making sure the system has been duly bled and depressurized.

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### *Replacing the Pump*

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Refer to Appendix B - Instruction Sheets (IS0250).

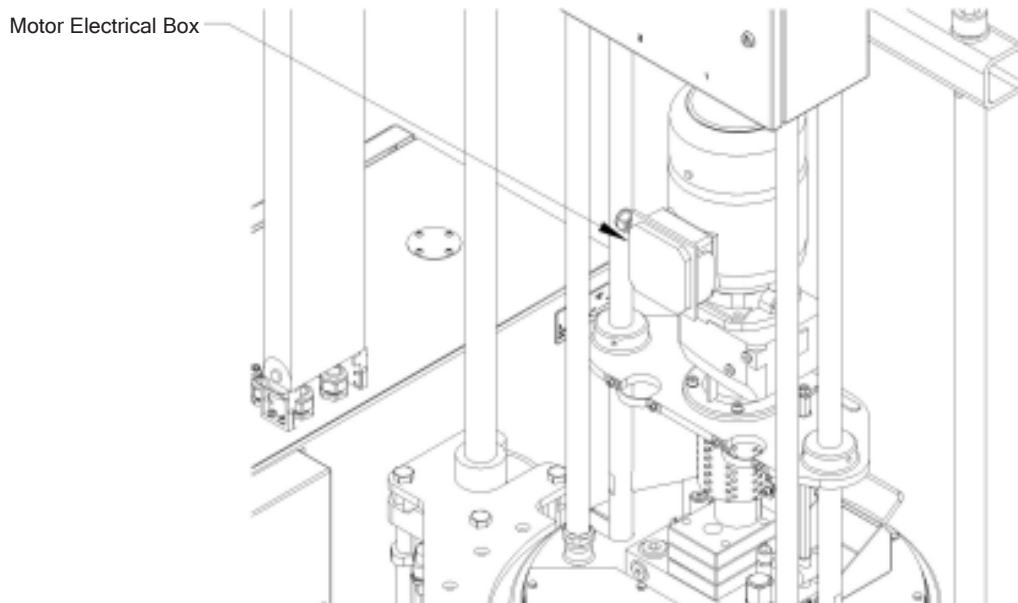
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### *Replacing the Motor*

---

If the motor needs to be replaced, proceed as follows:

1. Turn off the unit and disconnect the power and air.
2. Open the electrical box on the motor.



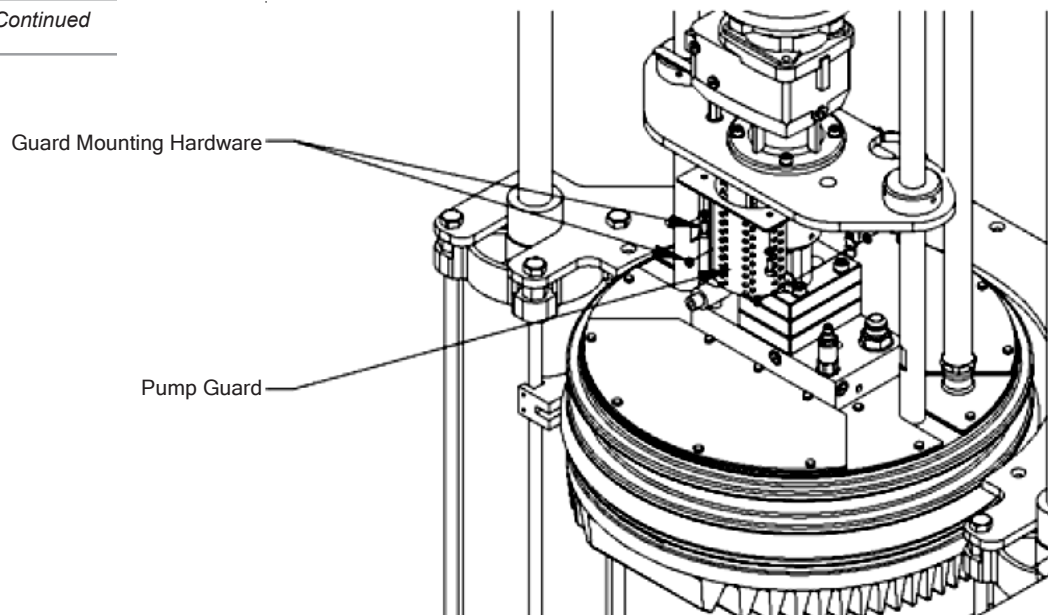
*Figure 8-1. Electrical Junction Box for the Motor*

3. Disconnect the wires inside of the motor.
4. Remove the M6 socket head cap screws, washers and nuts from the pump guard.

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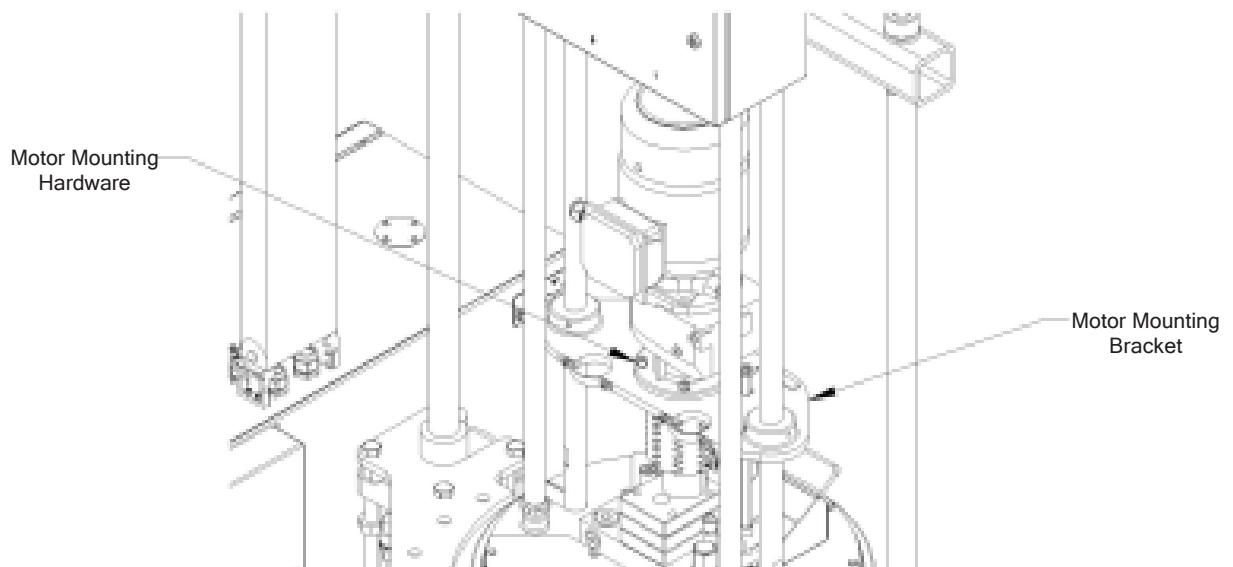
*Replacing the Motor - Continued*

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*Figure 8-2. Pump Coupling Hand Guard*

5. Remove the set screws from the motor coupling.
6. Remove the four (4) M8 socket head cap screws and washers securing the motor.



*Figure 8-3. Motor Mounting Bracket*

7. Remove the motor from the mounting bracket.
8. Attach the new motor using the four (4) M socket head cap screws and washers that were removed in step #5.

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*Replacing the Motor - Continued*

---

9. Re-insert the set screw on the motor coupling.
10. Reattach the pump guards.
11. Open the electrical box on the new motor.
12. Reconnect the wires from step #3 to the new motor according to the wiring schematic (999XD776-05).
13. Close the electrical box on the new motor.
14. Test the motor. It should run counter-clockwise.

---

**Replacing the  
Pressure Relief Valve**

---

1. Remove the platen from the drum.
2. Turn on the unit and allow it to reach the operating temperature.
3. Relieve any pressure in the system.
4. Remove the pressure relief valve from the manifold.



The physical location of these pressure relief valves may be reversed in some units.

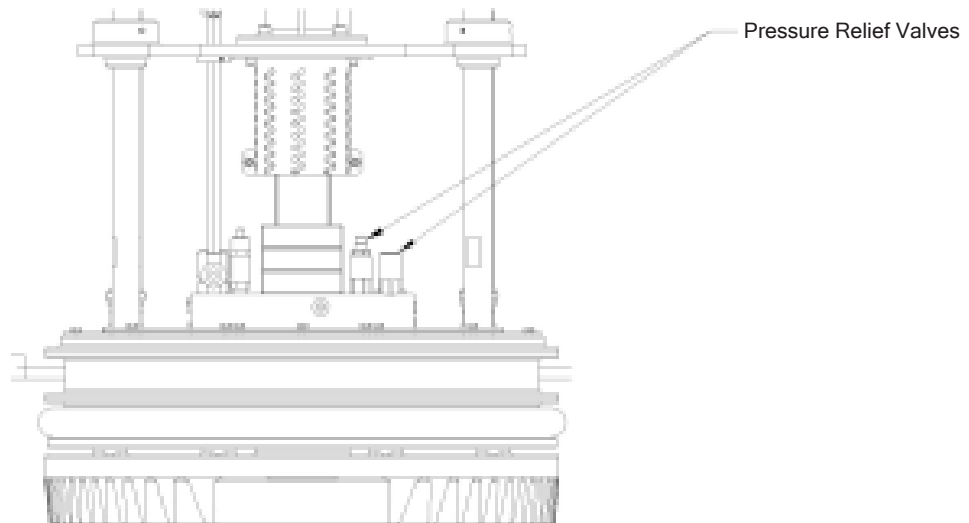


Figure 8-4. Pressure Relief Valve Locations – Front of the Unit

5. Attach the new pressure relief valve to the manifold.
6. Set the pressure relief valve to the desired adhesive operating pressure. See *Section 5 - Setup, "Adjusting the Pressure Control Valve."*

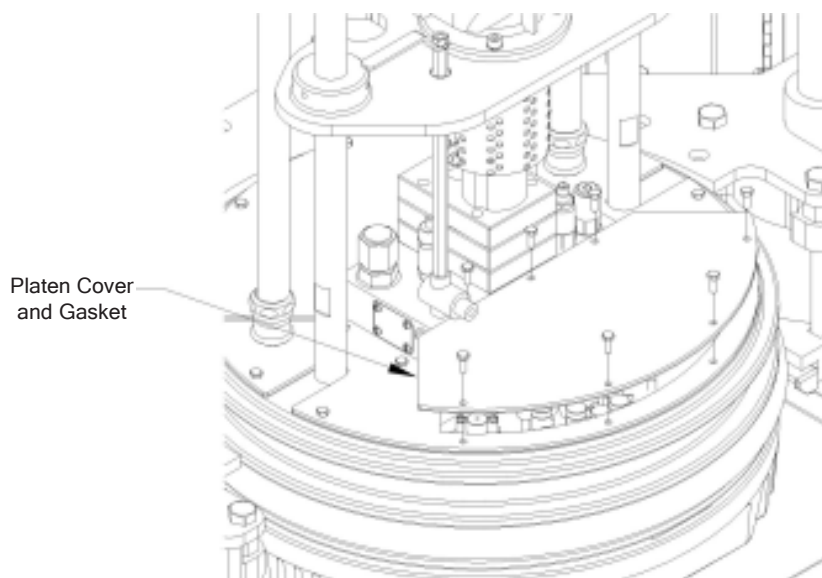


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**Replacing the  
Blow-off Valve**

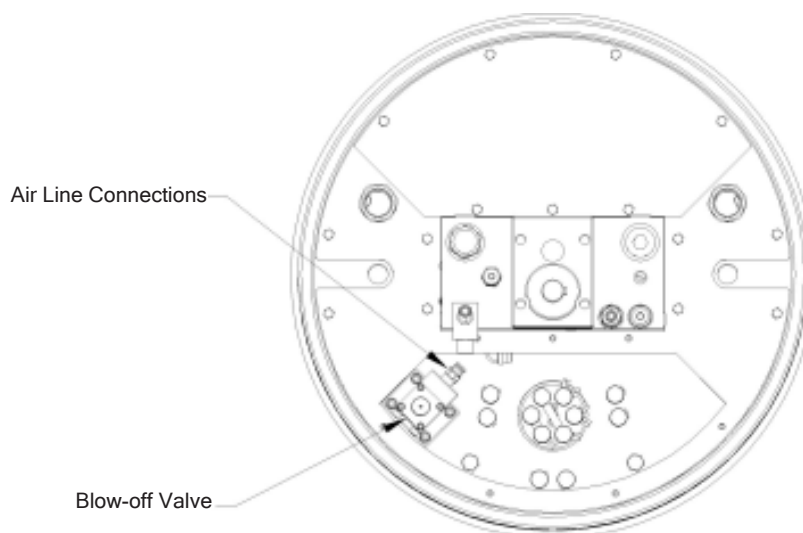
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1. Remove the front platen cover and gasket by removing the seven (7) M6 hex head cap screws.



*Figure 8-5. Front Platen Cover Removal – Front of the Unit*

2. Disconnect the three (3) air lines going to the blow-off valve.



*Figure 8-6. Blow-Off Valve Location – Top of the Platen*

3. Remove the blow-off valve by removing the four (4) M6 socket head cap screws and washers.
4. Reassemble by reversing the previous steps.

---

### **Cleaning the Bleed Valve**

---

If the bleed valve is blocked, proceed as follows:

1. Turn on the unit and allow it to reach the operating temperature.
2. Remove the platen from the drum.
3. Relieve any pressure in the system.
4. Turn off the unit and disconnect the power and air
5. Open the bleed valve. Ensure that the operating mechanism works properly.
6. Insert a rod (6mm or smaller) and remove any obstruction.
7. Turn on the unit and reconnect the air.
8. Operate the unit as specified in *Section 6 - Operation*.

If the bleed valve is faulty, proceed as follows:

1. Turn on the unit and allow it to reach the operating temperature.
2. Remove the platen from the drum.
3. Relieve any pressure in the system.
4. Turn off the unit and disconnect the power and air
5. Remove the M8 nut securing the bleed valve handle.

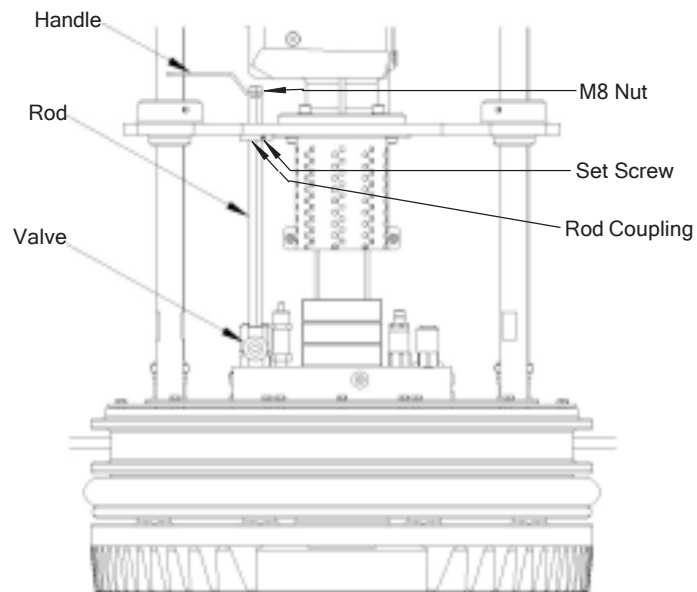


Figure 8-7. Bleed Valve Components – Front of the Unit

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*Cleaning the Bleed Valve -  
Continued*

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6. Remove the bleed valve rod and coupling by loosening the set screw.
7. Remove the bleed valve from the manifold.
8. Reassemble by reversing the previous steps, making sure the coupling and rod are in the correct orientation.

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***Replacing the Platen  
O-ring***

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Contact your Valco Melton representative.

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***Replacing the Beacon  
Light Bulb***

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1. Turn off the unit and disconnect the power.
2. Twist the beacon that needs to be replaced counter-clockwise and remove.
3. Twist the light bulb inside of the beacon case clockwise a quarter turn and discard the bulb.
4. Attach the new light bulb by reversing step #3.
5. Replace the beacon by aligning the white lines and twisting it clockwise until it locks.

# SECTION 9 - SPECIFICATIONS

## General

It is the purchaser's responsibility to ensure that all local, county, state, and national codes, regulations, rules, and laws relating to safety and safe operating conditions are met and followed.

<b>Specifications</b>				
<b>Min. Drum Inner Diameter</b>	22.3	in	567	mm
<b>Max. Drum Inner Diameter</b>	22.5	in	571	mm
<b>Max. Drum Height</b>	36.6	in	930	mm
<b>Width (W)</b>	62.7	in	1582	mm
<b>Height (H)</b>	90.7	in	2305	mm
<b>Height Extended (H2)</b>	110.4	in	2805	mm
<b>Depth (D)</b>	32.6	in	828	mm
<b>Depth w/Exhaust Hood (D2)</b>	33.9	in	860	mm
<b>Weight #</b>	1450	lb	658	kg
<b>Melt Rate (Finned/Smooth)*</b>	475/TBD	lb/hr	215/TBD	kg/hr
<b>Pump Rate (Standard)**</b>	422	lb/hr	191	kg/hr
<b>Gear Pump Control</b>	Variable speed with line tracking feature			
<b>Pressure Relief</b>	Single Stage			
<b>Number of Hoses/Guns</b>	1-4			
<b>Temperature Control</b>	Microprocessor self-tuning PID control			
<b>Temperature Control Accuracy</b>	± 2°F			
<b>Temperature Sensor Material</b>	Ni 120			
<b>Voltage</b>	380VAC + N (480VAC with optional transformer)			
<b>Number of Phases, Voltage</b>	3Ø			
<b>Voltage Frequency</b>	50/60 Hz			
<b>Full-Load Amps</b>	See Nameplate			
<b>Max. Adhesive Viscosity</b>	100,000 cPs			
<b>Ingress Protection</b>	IP54			
<b>Applications</b>	Packaging, non-wovens, specialty converting applications			

# Weight (maximum) includes the drum unloader with all options installed, coupled with the weight of the crate.

\* Test run with standard adhesive at 10,000 cPs. Melt rate will vary with input voltage and adhesive.

\*\* Pump rate based on a motor speed of 100 rpm and material with a specific gravity of 1.0.

# Dimensions - S-Drum

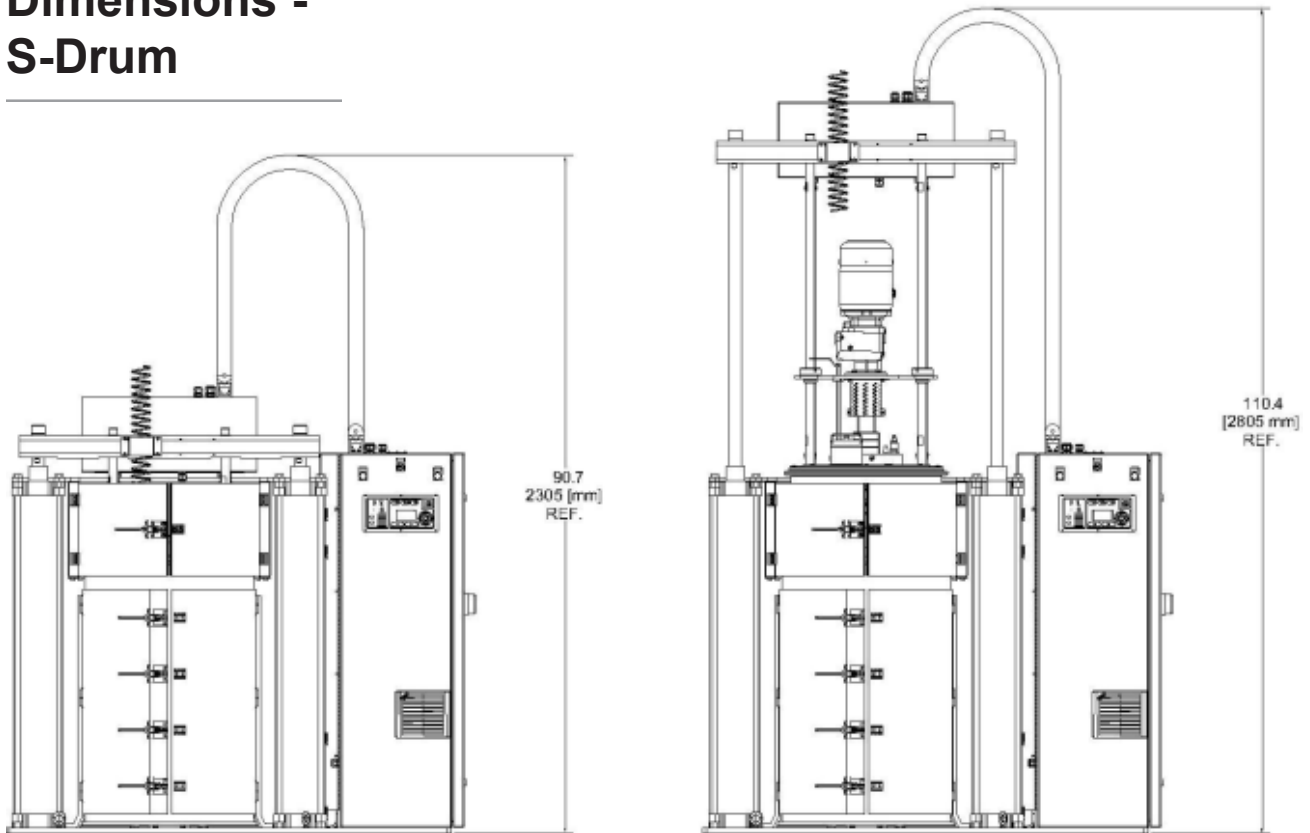


Figure 9-1. Working Profile – Front View

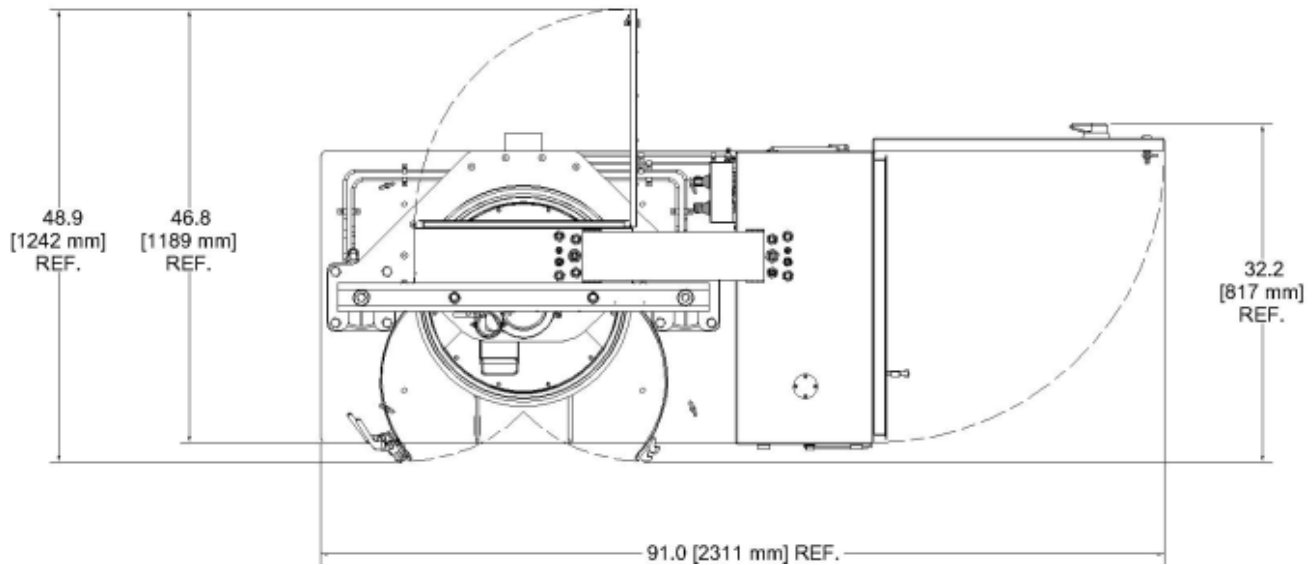


Figure 9-2. Working Profile – Top View

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# SECTION 10 - PART NUMBER LIST

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## How to Order Parts

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To order parts, please contact your closest Valco office by mail, phone, or Email:

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### *USA:*

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**Valco Cincinnati, Inc.**  
411 Circle Freeway Drive  
Cincinnati, OH 45246  
TEL: (513) 874-6550  
FAX: (513) 874-3612  
Email: sales@valcomelton.com  
Web: <http://www.valcomelton.com>

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### *England:*

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**Valco Cincinnati Limited**  
Hortonwood 32  
Telford, TFI 7YN, England  
TEL: (+44) 1952-677911  
FAX: (+44) 1952-677945  
Email: sales@valco.co.uk  
Web: <http://www.valco.co.uk>

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### *Germany:*

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**Valco Cincinnati GmbH**  
Storkower Strasse 6  
D-15749 Gallun, Germany  
TEL: (+49) 337 648 700  
FAX: (+49) 337 648 7070  
Email: info@valcogmbh.de

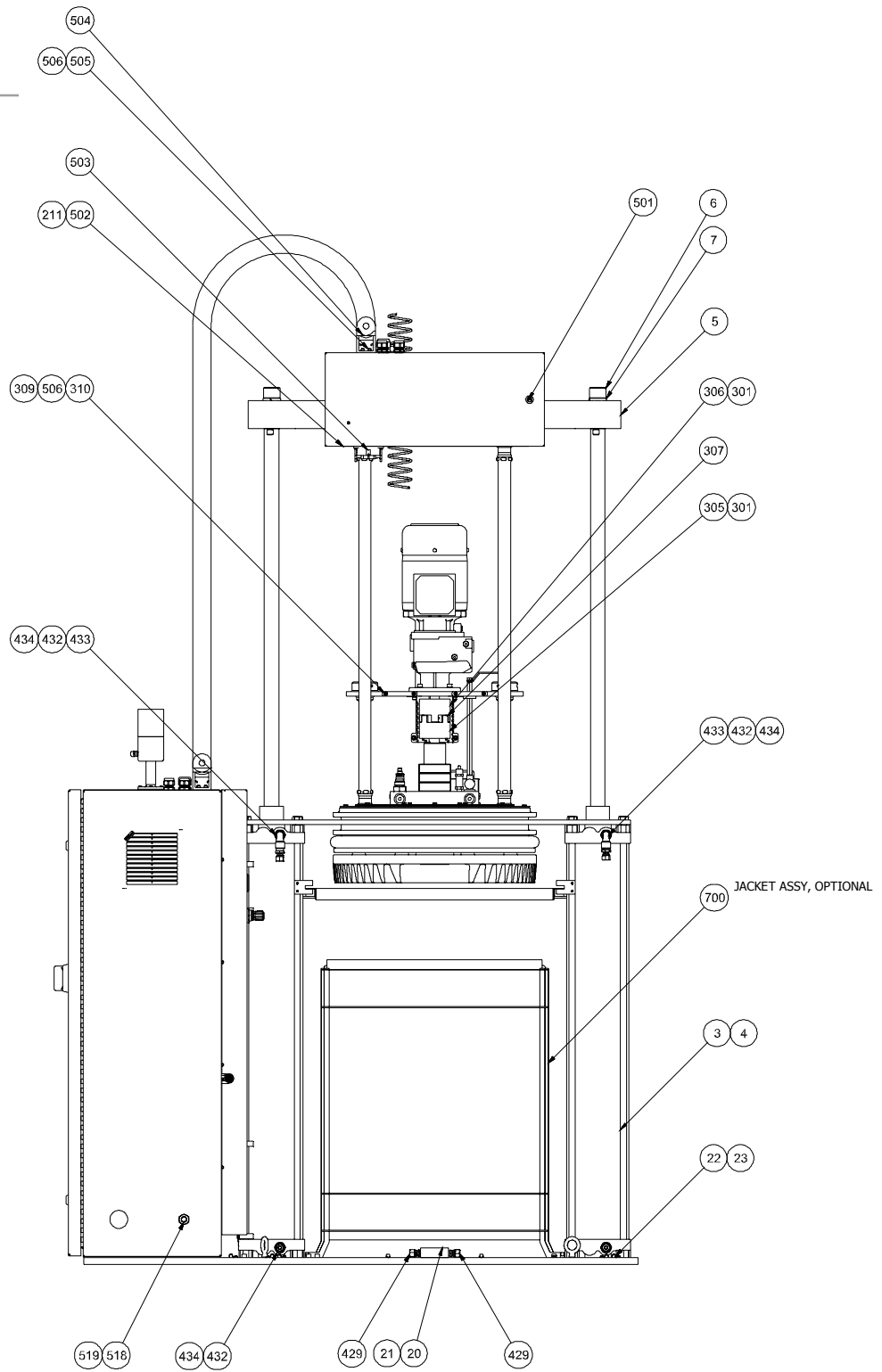
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### *Spain:*

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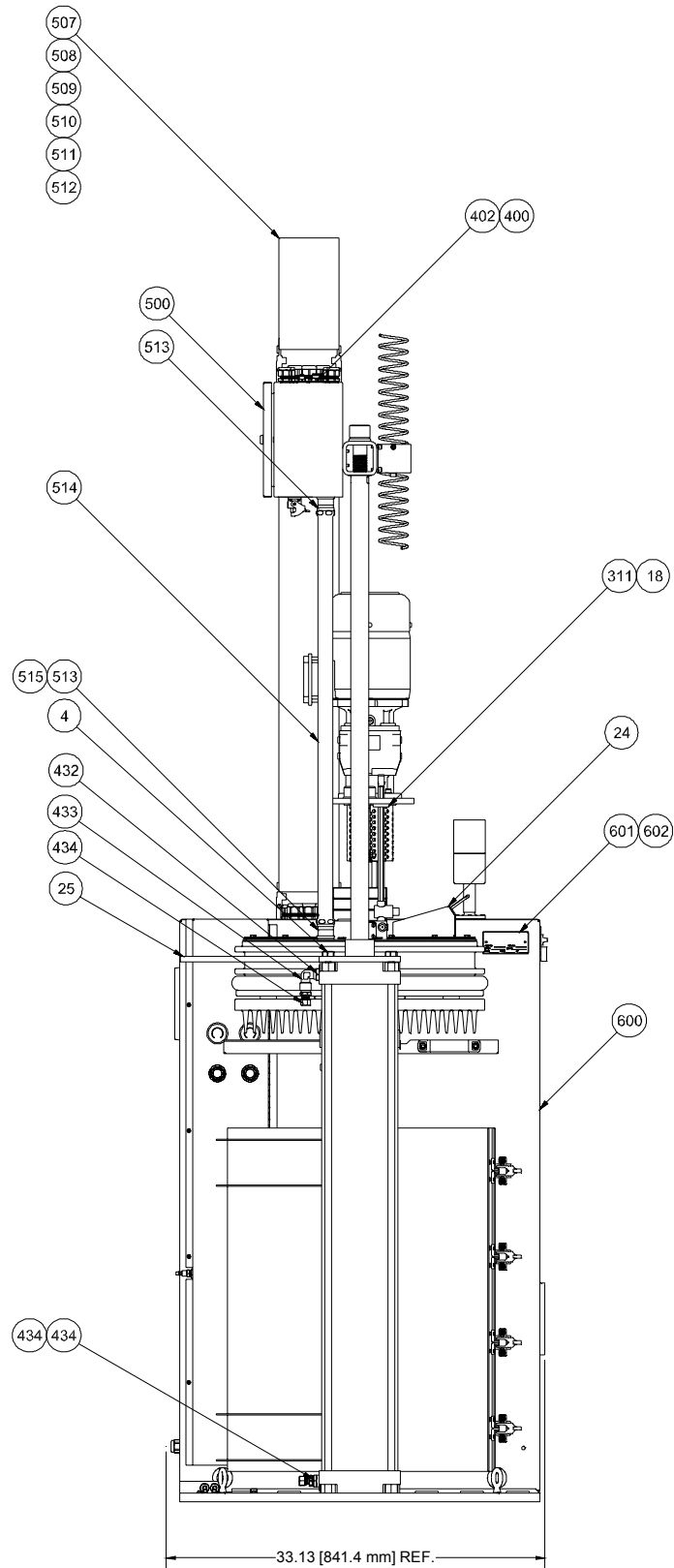
**Melton S.L.U.**  
Pol. Industrial Agustinos  
calle G, n. 34  
31160 Orcoyen, Navarra, Spain  
TEL: (34) 948-321-580  
FAX: (34) 948-326-584

# S-Drum, Finned Platen (776XX601)



VIEW A  
SCALE 1 / 8

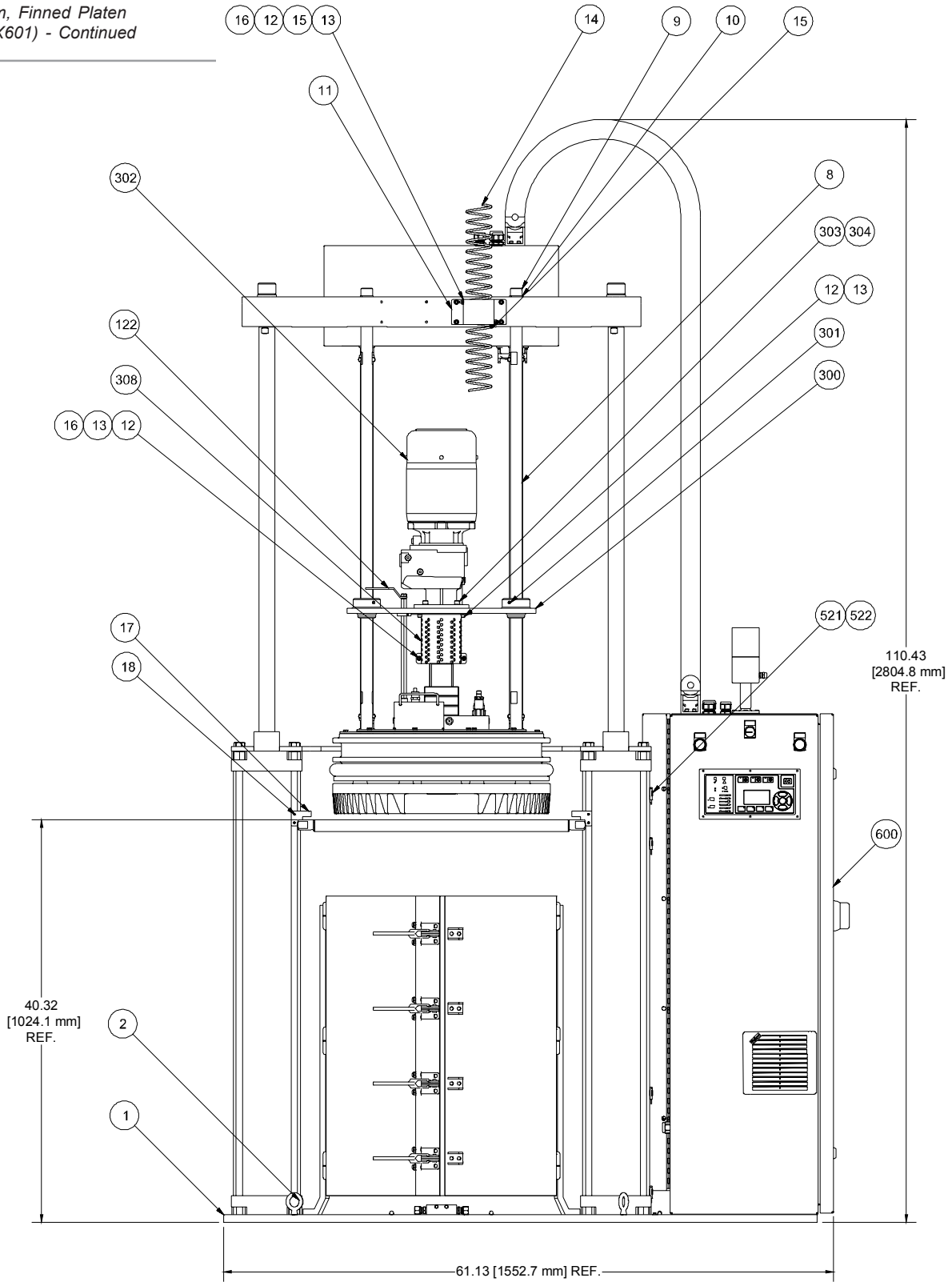
S-Drum, Finned Platen  
(776XX601) - Continued



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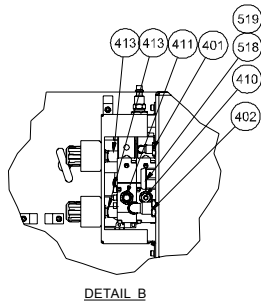


S-Drum, Finned Platen  
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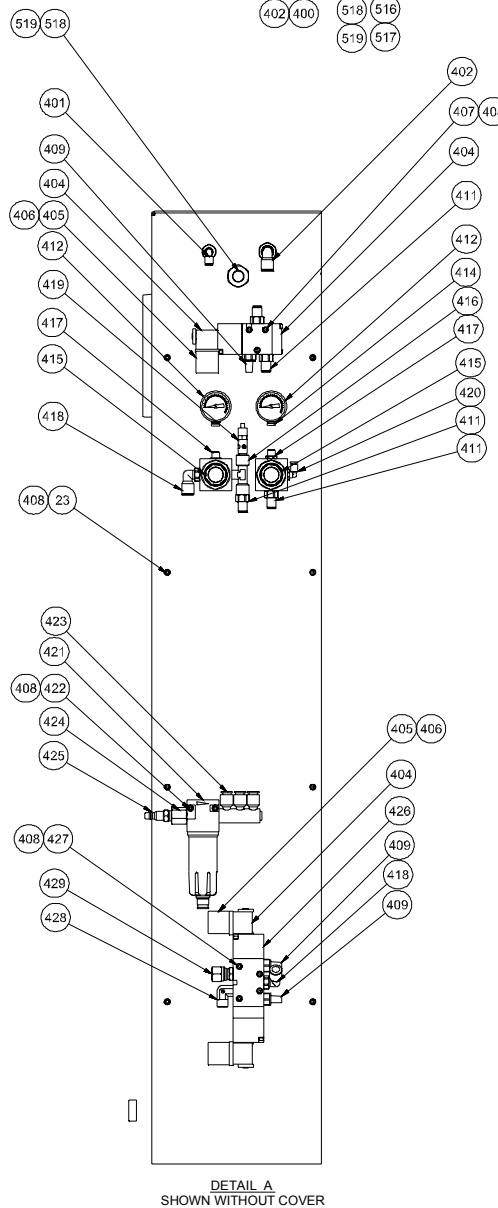
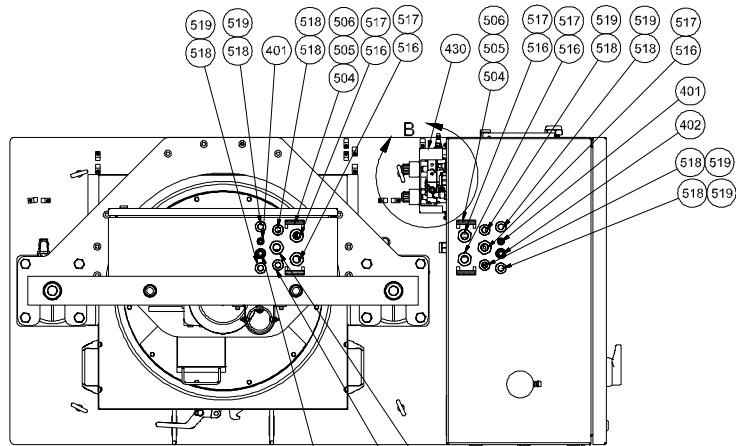


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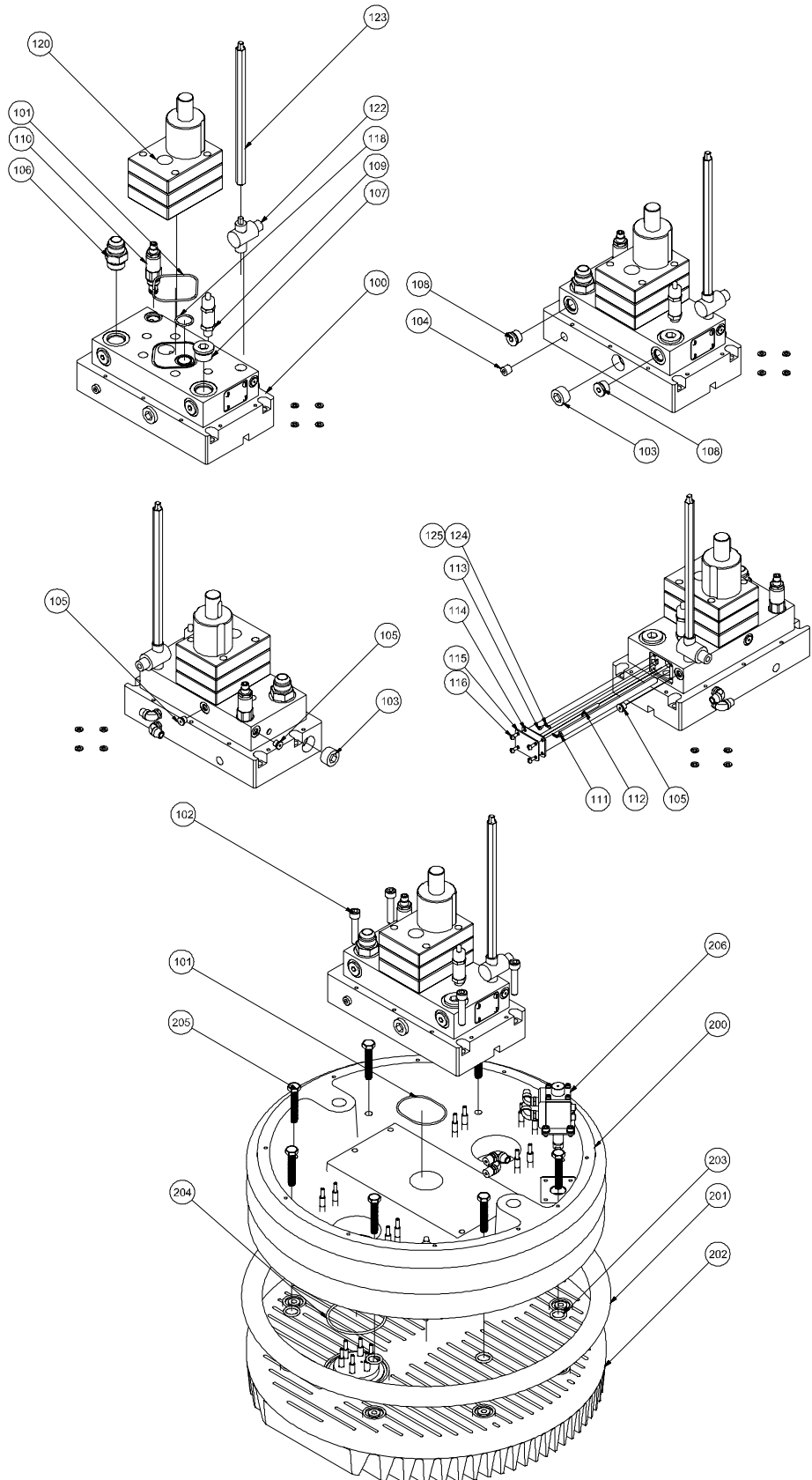
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(776XX601) - Continued



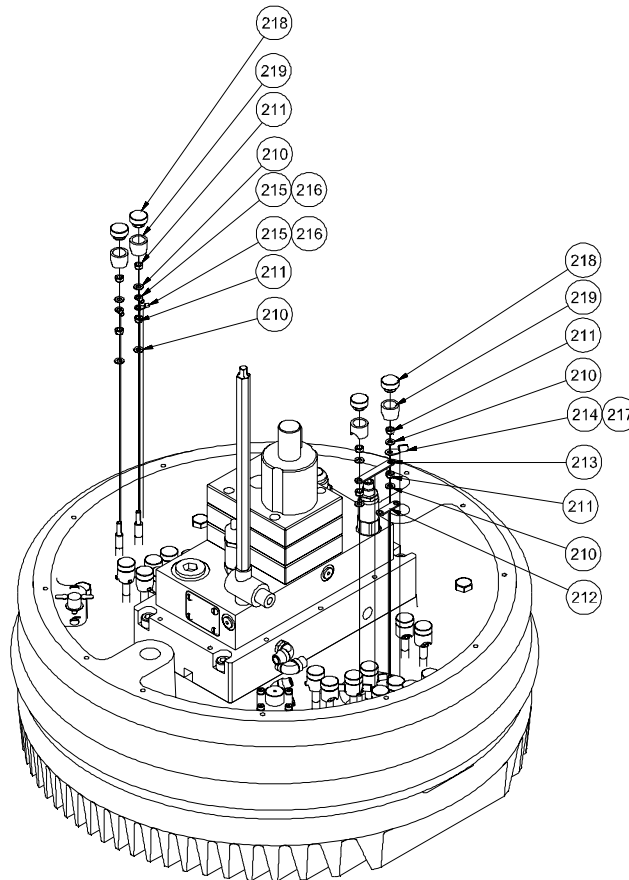
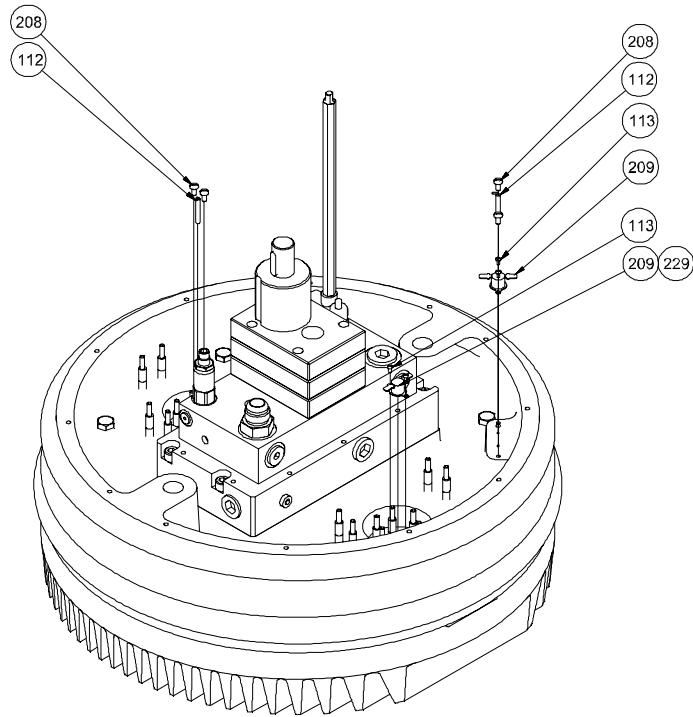
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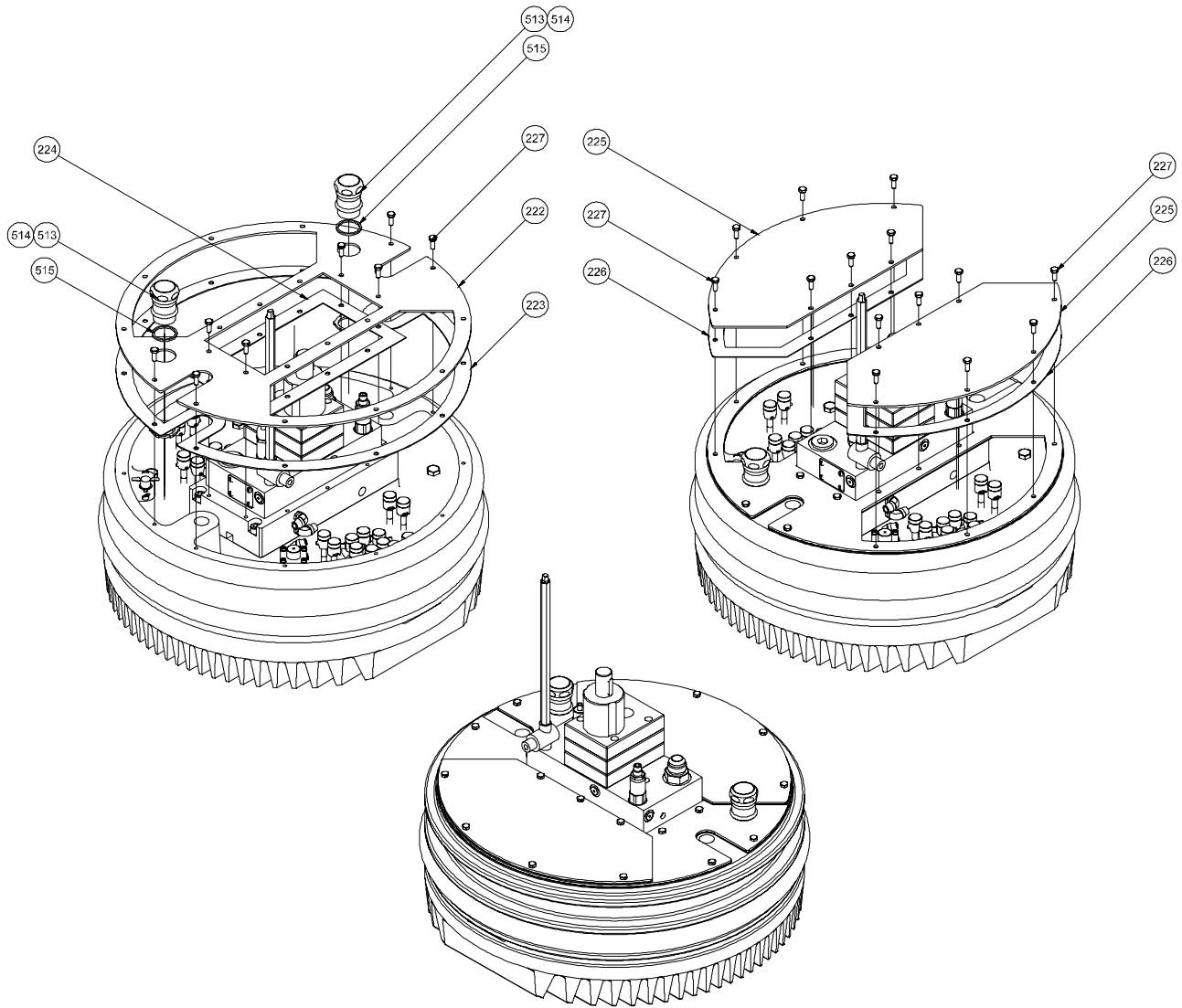
S-Drum, Finned Platen  
(776XX601) - Continued



S-Drum, Finned Platen  
(776XX601) - Continued



S-Drum, Finned Platen  
(776XX601) - Continued



S-Drum, Finned Platen  
(776XX601) - Continued

Item	Part Number	Qty	Description
1	776XX193	1	BASE PLATE, S-DRUM UNLOADER
2	884XX297	4	BOLT EYE M10 X 20 STEEL
3	782XX379	2	CYLINDER; PNEUMATIC
4	884XX292	16	HHCS M16 X 25 ZINC
5	776XX198	1	CROSS BAR
6	884XX302	2	SHCS M30 X110 BO
7	884XX291	2	WASHER LOCK M30 SS
8	791XX428	2	ROD, PLATEN SUPPORT
9	884XX294	2	SHCS M20 X 100 BO
10	884XX293	2	WASHER LOCK M20 BO
11	776XX191	1	BRACKET, HOSE SUPPORT
12	798XX272	16	SHCS M6 X 16 BO
13	798XX593	16	SLW M6 ZINC
14	783XX318	1	SPRING HOSE SUPPORT
15	782XX404	2	CLAMP 1/4 TUBE
16	798XX301	4	HEX NUT M6 ZINC
17	776XX794	2	BRACKET, DRIP TRAY
18	884XX296	9	SSS M5 X 10 BO
19	776XX796	1	DRIP TRAY ASSY
20	776XX182	1	MANIFOLD AIR CYLINDER
21	781XX316	2	SHCS M8 X 30 BO
22	782XX402	12	CLAMP 5/16 TUBE
23	784XX006	20	SHCS M4 X 12 BO
24	776XX180	1	DRIP TRAY, BLEED VALVE
25	776XX181	1	BRACE PNEUMATIC CYLINDER
26	781XX099	6	BALL, L 5/16 DIA, 316 SS
100	776XX179	1	MANIFOLD, SINGLE PUMP, MVV
101	745XX162	2	O-RING
102	784XX612	4	SHCS M10 X 50 SS
103	799XX787	2	PLUG HEX SOCKET 3/4 NPT
104	792XX097	1	HX. PLUG, 1/4
105	792XX064	3	HOLLOW HEX PLUG
106	799XX792	1	FITTING STR #12 JIC X UNF
107	797XX701	1	JIC PLUG
108	799XX796	2	PLUG HOLLOW HEX HEAD 3/4-16 UN
109	707XX589	1	VALVE, POP SAFETY, 15 PSI
110	707XX222	1	VALVE,PRESSURE RELIEF
111	096XX145	1	HEATER ROD
112	506XX640	3	RTD Ni120 .187" DIA 1.25" OAL
113	784XX111	5	PHS M3 X 6 ZINC
114	746XX230	1	GASKET MANIFOLD COVER
115	776XX186	1	COVER MANIFOLD
116	798XX432	4	PHSS M4 X 10 ZINC
117	411XX917	1	MUFFLER; HIGH TEMP, 1/4 MNPT
118	745XX021	1	O-RING
119	561XX229	1	GEAR PUMP; 40 CC/REV
120	884XX068	4	SHCS M10 X 130 BO
121	783XX273	4	WASHER, LOCK: M10 SS
122	707XX643	1	BALL VALVE
123	776XX791	1	LEVER, BLEED VALVE
124	075XX060	1	WIRE TERMINAL; RING 213909
125	540XX061	5	WIRE PTFE 18 AWG GRN/YEL

S-Drum, Finned Platen  
(776XX601) - Continued

Item	Part Number	Qty	Description
135	799XX220	1	CAP
136	784XX486	1	HEX NUT M8 X 1.25
138	707XX654	1	VALVE; PRESSURE RELIEF
200	776XX176	1	PLATEN, UPPER
201	917XX562	1	O-RING, VDRUM
202	776XX177	1	PLATEN, LOWER FINNED PLATE
203	745XX504	8	O-RING
204	745XX173	2	O-RING
205	884XX303	8	HHCS M10 X 60 SS
206	707XX649	1	BLOW-OFF VALVE ASSEMBLY
208	798XX388	4	PHMS, M5 X 10, SS
209	505XX313	2	THERMOSTAT
210	784XX185	48	FLAT WASHER M5 SS
211	798XX726	54	NUT,HEX M5 SS
212	091XX675	2	JUMPER LOWER PLATEN
213	091XX674	2	JUMPER LOWER PLATEN
214	075XX398	26	WIRE TERMINAL RING
215	075XX179	18	WIRE TERMINAL; RING
216	094XX014	36	TEFLON SHRINK TUBING
217	094XX033	38	TUBING, SHRINK, TEFLON, 4AWG
218	794XX391	24	CERAMIC TERMINAL COVER, TOP
219	794XX392	24	CERAMIC TERMINAL COVER, BOTTOM
220	799XX806	2	FITTING ELBOW 8MMX1/4BSPT
222	776XX184	1	COVER, PLATEN, FIXED
223	746XX233	1	GASKET, PLATEN COVER, OUTER
224	746XX232	1	GASKET, PLATEN COVER, INNER
225	776XX183	2	COVER, PLATEN, REMOVABLE
226	746XX231	2	GASKET, PLATEN COVER REMOVABLE
227	884XX304	22	HHCS M6 X 16 BO
228	075XX332	4	WIRE TERMINAL; FASTON, FEMAL
229	TAJ9168	1	TERMINAL BLOCK CERAMIC, 2P
230	TAJ9169	2	TERMINAL BLOCK CERAMIC, 4P
300	776XX188	1	BRACKET SINGLE MOTOR MOUNT
301	884XX295	8	SSS M8 X 16 BO
302	110XX372	1	GEAR MOTOR 1.5HP
303	784XX442	4	SHCS M8 X 25 SS
304	784XX975	4	WASHER-LOCK, SPLIT, M8
305	783XX320	1	JAW COUPLING 24MM
306	783XX321	1	JAW COUPLING 1IN
307	783XX319	1	SPIDER JAW COUPLING
308	776XX187	2	GUARD, MOTOR-PUMP SHAFT
309	782XX394	2	CLAMP, HOSE SUPPORT
310	784XX477	4	SHCS M5 X 14 BO
311	776XX795	1	COLLAR, BLEED VALVE, S-DRUM
319	030XX164	3	CABLE
320	797XX054	1	BUSHING M-F 3/4 X 1/2
400	799XX808	1	TUBE REDUCER 10MM TO 8MM
401	799XX671	3	ELBOW, BULKHEAD
402	799XX673	3	ELBOW, BULKHEAD
403	411XX912	2	SOLENOID VALVE 3/2 NC 1/4 BSPP

S-Drum, Finned Platen  
(776XX601) - Continued

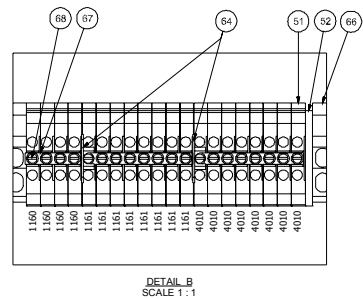
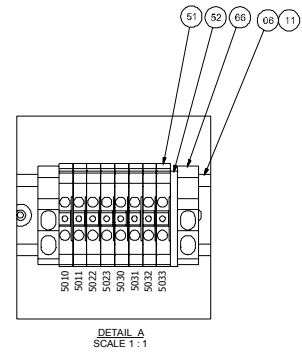
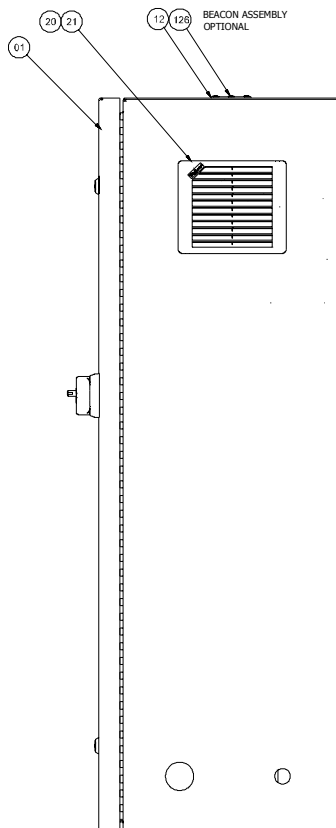
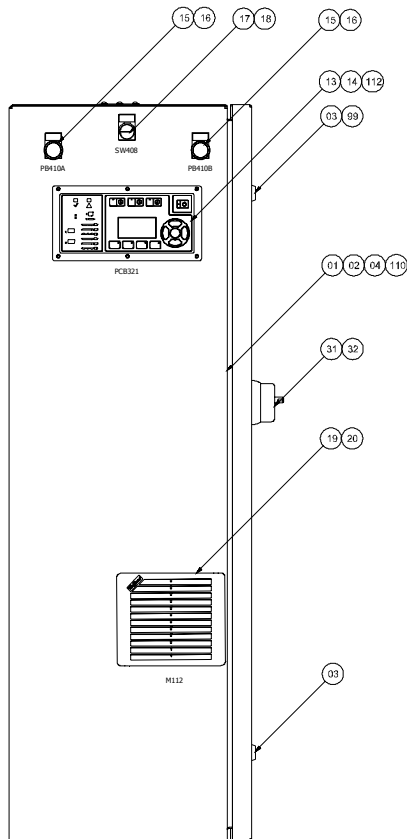
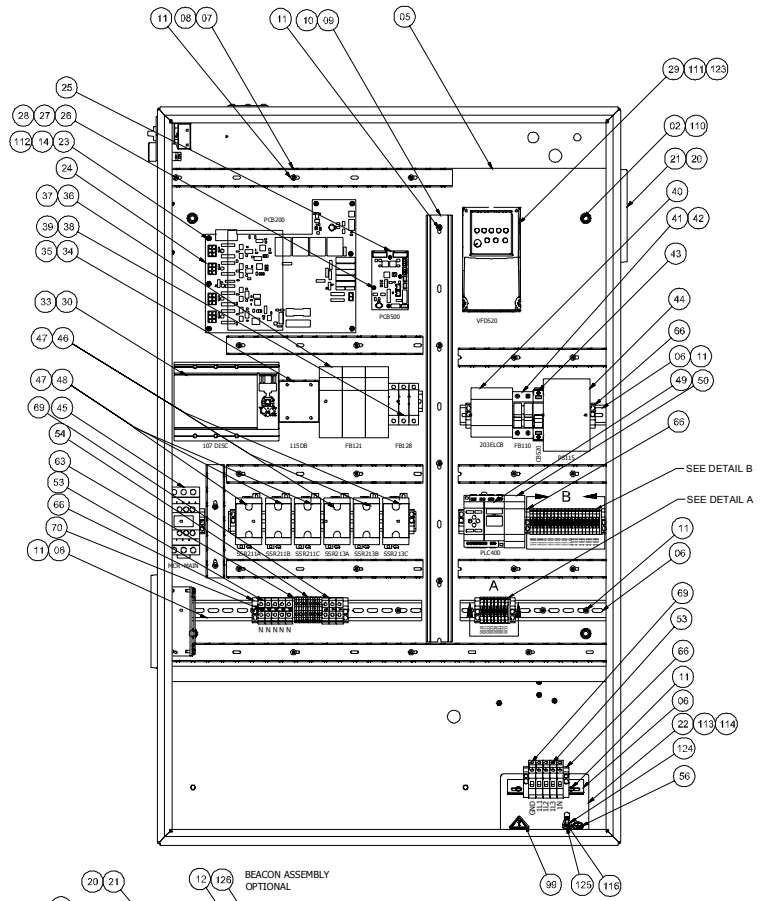
Item	Part Number	Qty	Description
404	411XX914	4	CONNECTOR SOLENOID COIL 24V
405	411XX915	4	COIL SOLENOID 24VDC
406	030XX101	30	*CABLE, 2 COND.
407	884XX301	3	SHCS M4 X 60 BO
408	798XX382	17	SLW M4 ZINC
409	411XX913	3	MUFFLER 1/4 BSPP
410	799XX797	1	FITTING STRAIGHT 1/4 BSPP 6MM
411	799XX788	5	FITTING STR 1/4BSPPX10MM TUBE
412	786XX125	2	GAUGE 0-100 PSI 1/8 NPT
413	797XX001	2	ELBOW-90' F-F 1/8 X 1/8
414	799XX798	2	FITTING STRAIGHT 1/8 NPT X 4MM
415	594XX200	2	AIR REGULATOR 1/4 BSPP
416	799XX795	1	FITTING BRANCH TEE 1/4 M-F-F
417	799XX789	1	FITTING STR 1/8BSPPX4MM TUBE
418	799XX801	3	ELBOW SWIVEL 1/4BSPPX10MM
419	707XX644	1	VALVE POP SAFETY 100 PSI
420	799XX802	1	ELBOW SWIVEL 1/8BSPP X 4MM
421	594XX199	1	AIR FILTER 1/4 BSPP
422	784XX610	2	SHCS M4 X 45 SS
423	799XX791	1	FITTING TRIPLE ROD 1/4 BSPP
424	792XX140	1	ADAPTER, 1/4BSPPM X 1/4NPTF-SS
425	752XX004	1	MALE QUICK DISCONNECT
426	411XX911	1	SOLENOID VALVE 5/3 NC 1/4 BSPP
427	798XX062	4	SHCS, M4 X 35
428	799XX799	1	FITTING COMP 8MM 1/4 BSPT
429	799XX804	7	FITTING COMP 1/4 BSPT X 8MM
430	776XX192	1	COVER, PNEUMATICS, VALCO BLUE
431	411XX916	1	MUFFLER, W/FLOW CONTROL
432	799XX803	4	REDUCER M-F 3/4 BSPT X 1/2BSPP
433	799XX807	2	STREET ELBOW 90 DEG 1/2 BSP
434	799XX800	4	FITTING COMP 8MM X 1/2 BSPP ST
435	745XX007	2	O` RING
436	755XX489	6	TUBING; 4MM OD AIR LINE
437	755XX608	12	TUBING;POLYURETHANE
438	755XX433	12	TUBING,POLY; 6MM OD X 4MM ID
439	755XX564	5	TUBING, PFA, 6MM OD X 1MM WALL
440	755XX695	5	TUBING; PFA, 8MM X 1MM
441	753XX956	1	AIR LINE KIT
442	PHC0716	1	LEGEND PLATE; RAM AND BLOW-OFF PRESS.
500	026XX331	1	HOSE JUNCTION BOX BLACK
501	091XX677	1	LATCH, COMPRESSION E3
502	776XX215	1	PLATE, HOSE CONNECTORS, NC
503	029XX332	2	RECEPTACLE ASSY,7' LEADS
504	067XX177	2	BRACKET, CABLE TRACK FLUSH MT
505	784XX068	8	SHCS M5 X 20 BO
506	784XX475	24	SLW M5 ZINC
507	067XX176	1	CABLE TRACK; E-CHAIN 5.13"
508	029XX612	2	CABLE, 4 COND X 12AWG 14 FT
509	029XX613	2	CABLE, 4 COND X 8AWG 14 FT
510	029XX614	1	CABLE, 4 COND X 16AWG 14 FT
511	029XX622	1	CABLE ASSY DC SIGNALS



S-Drum, Finned Platen  
(776XX601) - Continued

Item	Part Number	Qty	Description
512	029XX620	1	CABLE ASSY HOSE/GUN HEATER
513	782XX403	4	FITTING CONDUIT 1" NPT STEEL
514	782XX401	2	CONDUIT 1" GALVANIZED STEEL
515	746XX234	2	WASHER
516	066XX213	6	CORD GRIP 3/4 BLACK
517	066XX104	6	LOCKNUT
518	066XX209	12	CORD GRIP; 1/2 NPT, BLACK
519	066XX212	11	LOCKNUT 1/2" NPT BLACK
520	066XX214	1	CLAMP CABLE 1-1/2"
521	485XX115	4	SWITCH REED MAGNETIC SENSOR
522	485XX116	4	BRACKET REED MAGNETIC SENSOR
523	798XX489	8	NUT,HEX M3 ZINC
524	794XX099	1	SEAL
525	075XX336	6	TERMINAL BLOCK 85 AMP, 600VA
526	075XX275	35	TERMINAL BLOCK
527	075XX273	2	END STOP, TERMINAL
528	075XX350	1	END SECTION,GRAY,85A
529	075XX299	1	TERM BLOCK, GNC, 50A, YEL/GRN
530	091XX351	4	SPACER, SCREW, & WASHER
531	091XX350	1	JUMPER BAR
532	091XX277	22.8	DIN MOUNTING RAIL
533	075XX179	8	WIRE TERMINAL; RING
534	784XX349	3	HEX NUT M5 0,8 ZINC
535	784XX352	3	LOCK WASHER M5
536	784XX159	2	BHSCS M5 X 8 SS
537	075XX274	6	END SECTION, TERMINAL
538	075xx304	16	FERRULE;INS,18AWG,RED,8MM
539	075XX204	2	WIRE TERMINAL, RING #10
540	781XX670	16	LABEL, PRINTABLE HEAT SHRINK
541	798XX488	4	NUT,HEX M4 ZINC
600	026XX336	1	ELECTRICAL CABINET ASSY, BLUE
601	781XX566	1	NAMEPLATE, SHURE-GLUE SYSTEMS
602	091XX517	2	RIVET, BLIND, 1/8 DIA X 1/4 LG
700	776XX194	1	JACKET ASSEMBLY, FIBER DRUM
800	PHC0717	1	INSTALLATION KIT
801	PHC0719	1	PLATEN LAYOUT S-DRUM 200L
802	PHC0303	1	PNEUMATIC DIAGRAM S-DRUM 200L

# Electrical Cabinet, Finned Platen (026XX336)



Electrical Cabinet, Finned Platen  
(026XX336) - Continued

Item	Part Number	Qty	Description
1	026XX332	1	ELECTRICAL CABINET, BLUE
2	784XX416	8	SHCS M10 X 20 SS
3	091XX678	2	LATCH, COMPRESSION
4	795XX660	14	WEATHER STRIP
5	026XX330	1	PANEL, ELECTRICAL
6	091XX277	120	*DIN MOUNTING RAIL
7	067XX017	100	DUCT,30000403
8	067XX018	100	DUCT COVER,30001400
9	067XX015	30	DUCT,1345403
10	067XX016	30	DUCT COVER,1346409
11	784XX159	51	BHSCS M5 X 8 SS
12	KJC727	1	BEACON COVER PLATE
13	137XX017	1	OVERLAY ASSY, HM CTRL, D-SERIE
14	798XX488	13	NUT,HEX M4 ZINC
15	480XX244	2	PUSHBUTTON, BLACK 22MM
16	782XX395	2	NAME PLATE, ENABLE
17	480XX245	1	SELECTOR SWITCH, 3 POS, BLACK
18	104XX172	1	NAMEPLATE, UP-OFF-DOWN, HW
19	087XX014	1	FAN KIT, 4 IN, 230VAC
20	087XX016	2	EXHAUST GRILL
21	087XX013	1	EXHAUST GRILL, 4 IN
22	776XX189	1	BRACKET, POWER CONNECTIONS
23	091XX676	7	STANDOFF; HEX, M-F M4 X 40MM
24	151XX680	1	PCB ASSY, 12 ZONE GEAR NI-120
25	151XX685	1	PCB, ASSEMBLY, DUAL VFD
26	091XX600	4	STANDOFF,M3 X 18MM LONG,M-F
27	784XX976	4	WASHER-LOCK,SPIILT,M3
28	798XX489	4	NUT,HEX M3 ZINC
29	110XX371	1	VFD; 2 HP, POWER FLEX, 40
30	485XX117	1	SWITCH, DISCONNECT, FUSIBLE
31	485XX118	1	SWITCH HANDLE, DISCONNECT, RED
32	485XX120	1	SHAFT EXTENSION, 14.0"
33	085XX145	4	FUSE, 60 AMP, 600VAC
34	075XX285	1	DISTRIBUTION BLOCK
35	075XX286	1	COVER; CLEAR
36	086XX084	1	FUSE HOLDER, 3 P 600V TYPE J
37	TAJ9166	3	FUSE; 35A, CLASS J, FAST
38	086XX085	1	FUSE HOLDER, 3 P 600V TYPE CC
39	TAJ9165	3	FUSE; 15A, CLASS CC, FAST
40	056XX123	1	CIRCUIT BRAKER; EARTH LEAKAGE
41	086XX086	1	FUSE HOLDER, 2 P 600V TYPE CC
42	085XX094	2	FUSE, 10 AMP
43	056XX075	1	CIRCUIT BREAKER, 1P, 10A, TD
44	148XX050	1	POWER SUPPLY,24VDC 5A
45	160XX279	1	CONTACTOR; 80A (AC1), 3 POLE
46	160XX280	3	RELAY; SOLID STATE, 25A, 280V
47	100XX001	6	HEATSINK; SSR, 2 C/W, DIN MT.
48	160XX281	3	RELAY; SOLID STATE, 50A, 280V
49	118XX185	1	PROGRAMMABLE RELAY, 24 VDC
50	118XX186	1	EXPANSION MODULE, 24VDC
51	075XX275	28	TERMINAL BLOCK

Electrical Cabinet, Finned Platen  
(026XX336) - Continued

Item	Part Number	Qty	Description
52	075XX274	2	END SECTION, TERMINAL
53	075XX336	9	TERMINAL BLOCK 85 AMP, 600VAC
54	075xx299	6	TERM BLOCK, GNC, 50A, YEL/GRN
55	075XX075	3	WIRE TERMINAL; RING
56	781XX110	1	LABEL, GROUND SYMBOL
62	075XX398	5	WIRE TERMINAL RING
63	075XX350	1	END SECTION, GRAY, 85A
64	075XX300	2	CIRCUIT SEPARATOR
66	075XX273	15	END STOP, TERMINAL
67	091XX350	3	JUMPER BAR
68	091XX351	20	SPACER, SCREW, & WASHER
69	075XX399	4	TERMINAL BLOCK; GND, 12MM, G/Y
70	075XX400	1	JUMPER; 85A, 12MM TERM. BLOCK
71	782XX239	1	LABEL: WIRE MARKER
72	029XX624	1	CABLE ASSY AUX1 OUT TO SSR
73	029XX636	1	CABLE ASSY, VFD SIGNAL
74	029XX625	1	CABLE ASSY AUX2 OUT TO SSR
75	029XX627	1	CABLE ASSY 24VDC TO 12 ZONE
76	029XX626	1	CABLE ASSY MCR
77	029XX637	1	CABLE ASSY, SA VFD POWER/COMM
79	029XX551	1	CABLE ASSY; 6 COND, PWR/COMM
80	540XX438	60	WIRE THHN 6 AWG BLK 600V 90C
81	540XX439	20	WIRE THHN 6 AWG BLU 600V 90C
82	540XX440	15	WIRE THHN 6 AWG GRN/YEL 600V
83	540XX435	20	WIRE THHN 8 AWG BLK 600V 90C
84	540XX436	10	WIRE THHN 8 AWG BLU 600V 90C
85	540XX441	15	WIRE THHN 10 AWG BLK 600V
86	540XX442	5	WIRE THHN 10 AWG BLU 600V
87	540XX443	46	WIRE PTFE 14 AWG FIBERGLASS
88	540XX076	20	WIRE MTW 14 AWG BLK
89	540XX084	10	WIRE MTW 14 AWG BLU
90	540XX171	70	WIRE MTW 18 AWG BLU
91	540XX437	46	WIRE, PTFE 8 AWG
92	540XX137	60	WIRE PTFE 12 AWG BLK
93	540XX139	48	WIRE PTFE 12 AWG GRN/YEL
94	540XX422	5	WIRE 16/18 SUB 540XX061 GRE/YE
95	540XX040	600	WIRE PVC 20 AWG BLU
96	540XX030	80	WIRE PVC 22 AWG BLU
97	075XX401	36	FERRULE; INSULATED, 6AWG, BLUE
98	075XX309	9	FERRULE; INS., 8AWG, RED
99	781XX630	2	LABEL, WARNING-ELEC.HAZARD
101	999XD776-10	1	ELEC. ELEMENTARY S-DRUM 200L
103	999XD776-08	1	ELEC. ELEMENTARY S-DRUM 200L
104	999XD776-07	1	ELEC. ELEMENTARY S-DRUM 200L
105	999XD776-06	1	ELEC. ELEMENTARY S-DRUM 200L
106	999XD776-05	1	ELEC. ELEMENTARY S-DRUM 200L
109	999XB776-11	1	SETTINGS, VFD PARAMETERS
110	783XX273	8	WASHER, LOCK: M10 SS
111	784XX410	4	SHCS M5 X 16
112	798XX382	13	SLW M4 ZINC

Electrical Cabinet, Finned Platen  
(026XX336) - Continued

Item	Part Number	Qty	Description
113	798XX301	4	HEX NUT M6 ZINC
114	798XX593	4	SLW M6 ZINC
115	782XX410	1	MARKER CARD; S-DRUM 200L
116	798XX726	1	NUT, HEX M5 SS
117	540XX080	10	WIRE MTW 16 AWG BLU
118	540XX014	10	WIRE MTW 16 AWG BLK
119	540XX072	10	WIRE MTW 16 AWG GRN/YEL
120	075XX306	9	FERRULE;INS,14AWG,BLUE,12MM
121	075XX304	23	FERRULE;INS,18AWG,RED,8MM
122	075XX302	40	FERRULE;INS,22AWG,TURQ,8MM
123	784XX475	4	SLW M5 ZINC
124	075XX404	1	WIRE TERMINAL; RING
125	784XX352	1	LOCK WASHER M5
126	784XX300	4	BHCS M5x12 BO

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# SECTION 11 - WARRANTY

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## Warranty Information

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Valco Cincinnati, Inc. warrants its equipment worldwide against defects in material and workmanship as outlined in this section.

Liability of the company is limited to repair of the product, or replacement of any part shown to be defective, and does not extend to defects caused by accidents, misuse, abuse, neglect, tampering or deterioration by corrosion. This warranty does not cover those items determined by Valco Cincinnati, Inc. to be normal wear items such as seals, O-rings, diaphragms, springs, etc.

Reconditioned equipment, unless specified otherwise at the time of purchase, will be warranted as described above for a period of ninety (90) days from the date of shipment by Valco Cincinnati.

Components purchased by Valco Cincinnati, Inc. from others for inclusion in its products are warranted only to the extent of the original manufacturer's warranty. In no event shall Valco Cincinnati, Inc. be liable for indirect or consequential damages arising out of the use of Valco Cincinnati products.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to Valco Cincinnati, Inc. for examination and verification. If claimed defect is verified, repairs or replacements will be made F.O.B. Cincinnati, Ohio, U.S.A. or ex-works Telford, U.K. If the inspection of the equipment does *not* disclose any defect of workmanship or material, any necessary repairs will be made at a reasonable charge and return transportation will be charged.

This is the only authorized Valco Cincinnati, Inc. warranty and is in lieu of all other expressed or implied warranties, representations or any other obligations on the part of Valco Cincinnati, Inc.

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### ***Cold Glue Equipment and Electronic Controls***

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The warranty for cold glue equipment and electronic controls for a period of one (1) year from the date of shipment by Valco Cincinnati, Inc.

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### ***Hot Melt Units, Hoses, Valves, Guns, and Related Equipment***

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All hot melt components except cast-in heating elements are warranted for a period of six (6) months from the date of shipment by Valco Cincinnati. Cast-in heaters carry an additional, pro-rated warranty not to exceed three (3) years from the date of shipment by ValcoMelton, a Valco Cincinnati, Inc. company.

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## SECTION 12 - SERVICE

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If a problem with your system persists, contact a ValcoMelton Technical Support representative. If your need is urgent, we encourage you to contact our corporate office in Cincinnati, Ohio, U.S.A. at (513) 874-6550. If the problem cannot be resolved, Valco Cincinnati, Inc. will promptly arrange to have a technical representative visit your facility. Any charges for a service call will be quoted at that time. Any part that fails during the warranty period shall be returned prepaid to Valco Cincinnati, Inc. by the customer for disposition.



Upon request, ValcoMelton personnel are available to repair or replace such parts at the customer's facility. Charges for this service include travel time and expenses.

If an equipment problem is the result of customer abuse, improper installation or operation, all travel time, labor, parts, and expenses will be charged to the customer.

If the responsibility for a problem cannot be absolutely determined, the customer will be charged for travel time and expenses only. No charge will be made for parts and labor.

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# APPENDIX A - PASSWORD LEVELS

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The Unit has multiple security levels to protect important information against unauthorized access. The levels are enabled with different PIN codes when entering the 'Setup menu'. The following list includes the PIN codes for the different levels and describes the difference between them.

## **Level 1 - Operator (no password required - default level)**

- Can view most information with only basic editing available
- Can adjust temperature setpoints
- Can turn zones on and off

## **Level 2 - Advanced Operator (PIN Code: 1234)**

- Can access all Level 1 features
- Can access most system setup parameters
- Can access all Clock, Setback, Startup, History, and Diagnostics menu groups

## **Level 3 - Supervisor (PIN Code: 6550)**

- Can access all Level 1 and 2 features
- Can access Maximum Temperature parameter in System Setup menu
- Can access Peripherals (Inputs/Outputs) and Temperature Control (PID) menu groups

## **Level 0 - Protected (no password required)**

Level 0 is an alternate default level that locks out ALL edits, for applications where the plant wishes to prevent any and all changes, including temperature changes.

The Password Pin input function is still accessible.

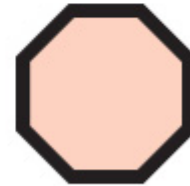
To set the unit to Level 0 as the default level (from Level 2 or higher):



Continued Next Page



Setting Level 0 as Default -  
Continued



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# APPENDIX B - POWER REQUIREMENTS

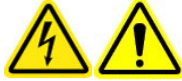
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## System Power Requirement Calculation - S-Drum 200L Units

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### WARNING!



Calculate all power requirements, as stated below, before hooking up power. OTHERWISE, DEATH OR SEVERE INJURY AND DAMAGE TO EQUIPMENT AND/OR THE CIRCUIT COULD OCCUR.

For incoming power requirements, see *Section 4 - Installation*.

Power requirements for the S-Drum 200L System (unit, hoses and guns) must be calculated before hooking up power, to verify that the hoses and guns do not exceed the power rating for the unit. Personnel injury, as well as serious equipment damage, can result from overloading the system.

This calculation will depend on the following two factors:

- The wattage for any hose/gun pair
- The total wattage for all hoses and guns

Perform the system power requirement calculation for the S-Drum unit as follows, referring to Table 1, below:

**Table 1. Maximum Allowable Wattage for the D Series Unit**

Line	Description	Maximum Wattage (W)
1	Total for hose/gun 1 pair	2300
2	Total for hose/gun 2 pair	2300
3	Total for hose/gun 3 pair	1400
4	Total for hose/gun 4 pair	1400
5	Total for hose/gun 5 pair	1400
6	Total for hose/gun 6 pair	1400
7	Total for all hoses and guns	8600

1. Add the power requirements of hose #1 and gun #1. Compare this value to the maximum wattage given in Line 1 of Table 1.
2. Add the power requirements of hose #2 and gun #2. Compare this value to the maximum wattage given in Line 2 of Table 1.
3. Add the power requirements of hose #3 and gun #3. Compare this value to the maximum wattage given in Line 3 of Table 1.
4. Add the power requirements of hose #4 and gun #4. Compare this value to the maximum wattage given in Line 4 of Table 1.
5. Add the power requirements of hose #5 and gun #5. Compare this value to the maximum wattage given in Line 5 of Table 1.

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*System Power Requirement  
Calculation - S-Drum 200L Units -  
Continued*

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6. Add the power requirements of hose #6 and gun #6. Compare this value to the maximum wattage given in Line 6 of Table 1.
7. Add the power requirements of all hoses and all guns. Compare this value to the maximum wattage for all hoses and guns given in Line 7 of Table 1.
8. If any of the power requirements calculated in steps 1-7 exceed any of the maximum allowable wattages given in Table 1, the hose length or gun configuration must be changed, to reduce all power requirements to below maximum-allowable wattages. If each of the power requirements calculated in steps 1-7 is below the maximum allowable wattages given in Table 1, the system power requirement is within allowable limits.

# APPENDIX C - INSTRUCTION SHEETS FOR OPTION KITS

The attached Instruction Sheets apply to the Option Kits listed in the table below.



Some of the Instruction Sheets associated with this system also contain information for other systems. When using any of these Instruction Sheets, refer only to the sections that apply to your system and disregard those that do not apply.

Option Kits for S-Drum				
Feature #	Description	Option Kit #	Option Kit Type	Instruction Sheet
1	Base Unit	N/A	N/A	N/A
2	Purge System	776XX626	Purge System Assy., NC	IS0248
		776XX627	Purge System Assy., Latching	
3	Operating Voltage	776XX632	Power Kit 480V 36KVA, Finned	IS0249
		776XX633	Power Kit 480V 36KVA, Smooth	
4	Pump Size	776XX640	Pump Kit, 10cc/rev	IS0250
		776XX641	Pump Kit, 15cc/rev	
		776XX643	Pump Kit, 30cc/rev	
5	Pressure Relief	N/A	N/A	N/A
6	Vent Hood	776XX577	Vent Hood Assy.	IS0251
7	Drum Clamp	776XX594	Jacket Assy., Metal Drum	IS0252
		776XX194	Jacket Assy., Fiber Drum	
8	Hose Connection and Fittings	Multiple	Multiple	999XB780-03
9	Auxiliary Electrical Channels	N/A	N/A	N/A
10	Beacon/Alarm	105XX334	Beacon Alarm Assy., 24V, 1 Lt.	IS0255
		105XX335	Beacon Alarm Assy., 24V, 3 Lt.	
11	External I/O	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A

Hose Connector Change Kits			
Part Number	Connector Type	# of Hoses	Instruction Sheet
776XX565	Compatible	3-4	IS0253
776XX566	Latching	1-2	IS0254
776XX567	Latching	3-4	IS0253

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# PURGE SYSTEM ASSEMBLY INSTRUCTIONS

1/2013

IS0248

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## Important Information

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### WARNING!



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

All equipment is to be installed and all connections are to be made only by qualified personnel. Components and accessories are to be installed in accordance with the instructions provided and applicable codes for the region installed. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

The equipment may still be energized even after the circuit breaker or main power switch is off.

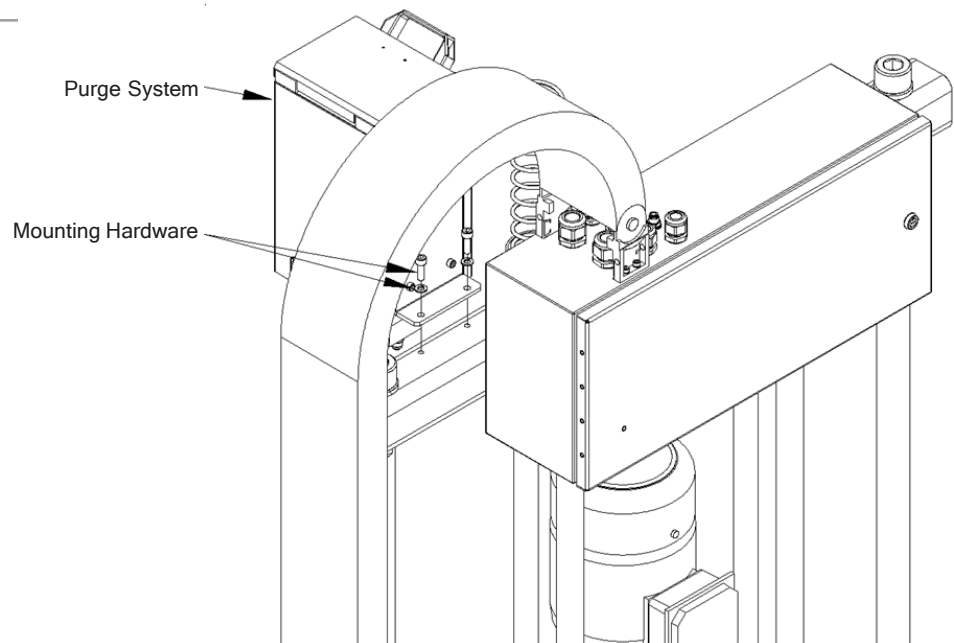
All equipment must be properly grounded and fused in accordance with rate current consumption (refer to the equipment identification plate).

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## Installation

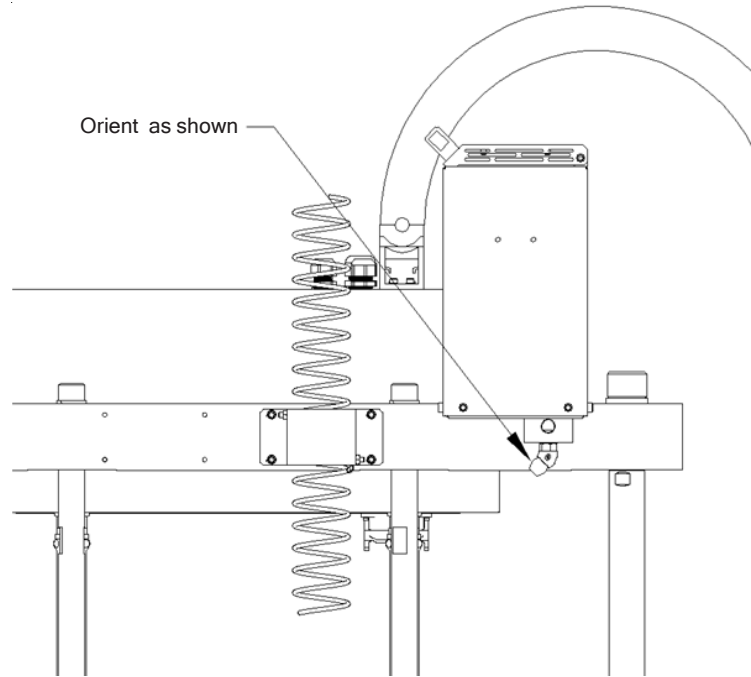
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1. Mount the purge system to the cross bar using two (2) M8 X 25 socket head cap screws and lock washers.



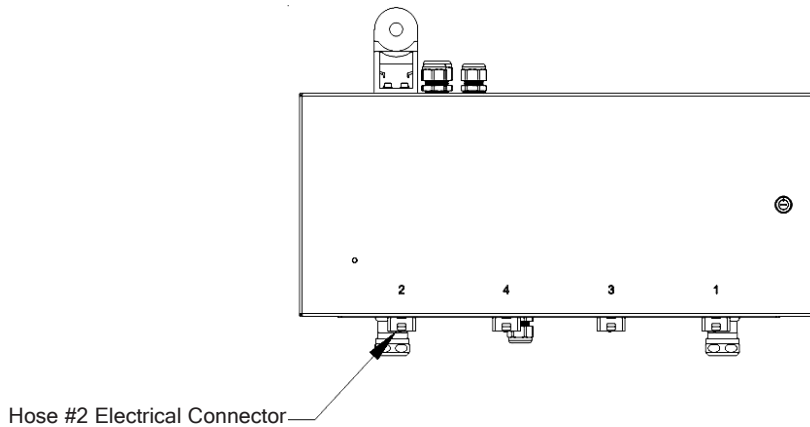
Installation - Continued

2. Discard the straight fitting on the bottom of the purge system with the 45° elbow.



Front View of the Unit

3. Attach the end of the purge hose (side with the electrical connectors) to the fitting on the purge system.
4. Connect the purge system to the gun end of the hose.
5. Connect the unit end of the hose to the second hose connector on the junction box.



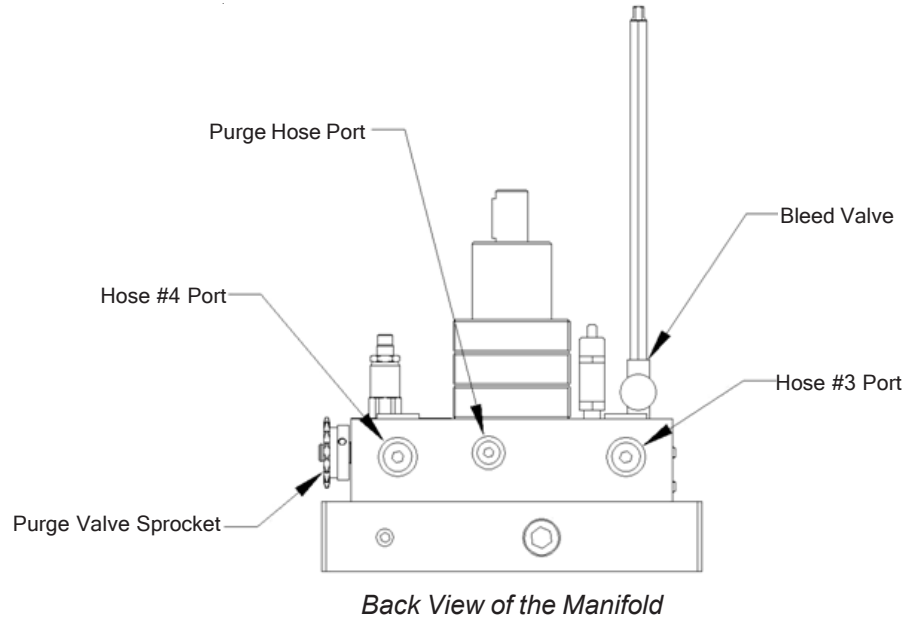
6. Attach the other end of the purge hose to the 90° fitting on the purge hose port.

Installation - Continued

**WARNING!**



If adhesive has been run through the fitting allow the unit to reach the operating temperature before attaching the hose.



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# TRANSFORMER ASSEMBLY PROCEDURE

1/2013

IS0249

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## Important Information

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### WARNING!



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

All equipment is to be installed and all connections are to be made only by qualified personnel. Components and accessories are to be installed in accordance with the instructions provided and applicable codes for the region installed. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

### WARNING!



The equipment may still be energized even after the circuit breaker or main power switch is off.

All equipment must be properly grounded and fused in accordance with rate current consumption (refer to the equipment identification plate)

Gauge and insulation for power supply must be adequate to handle rated current consumption.

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## Description

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This instruction sheet will explain how to install a transformer into the S-Drum hot melt unit. Both transformers have the same dimensions but a different kVA value.

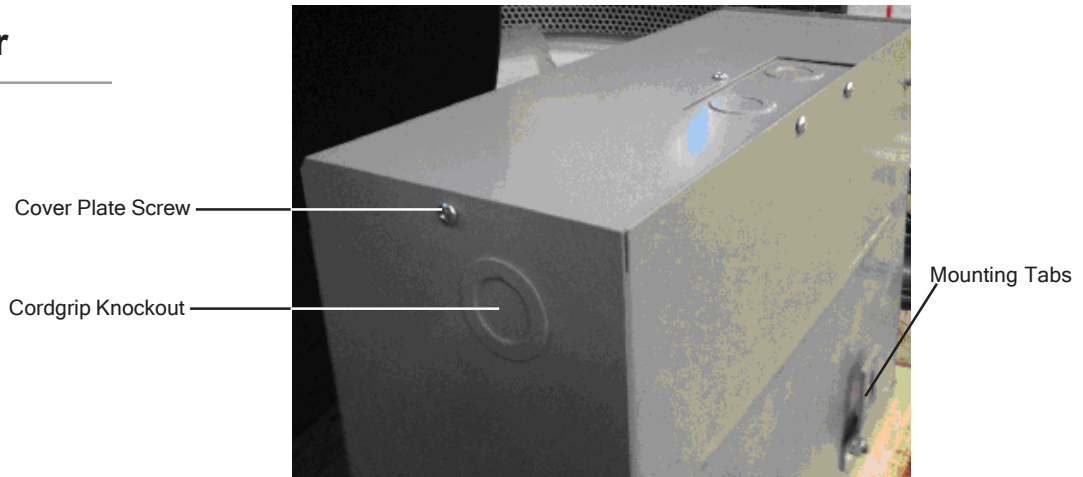
P/N	Primary Voltage	kVA	Schematic
776xx633	480 VAC 3Ø	24	999XD776-13
776xx632	480 VAC 3Ø	36	999XD776-09

The 24 kVA transformer should be used for the smooth platen, while the 36 kVA transformer should be used for the finned platen.

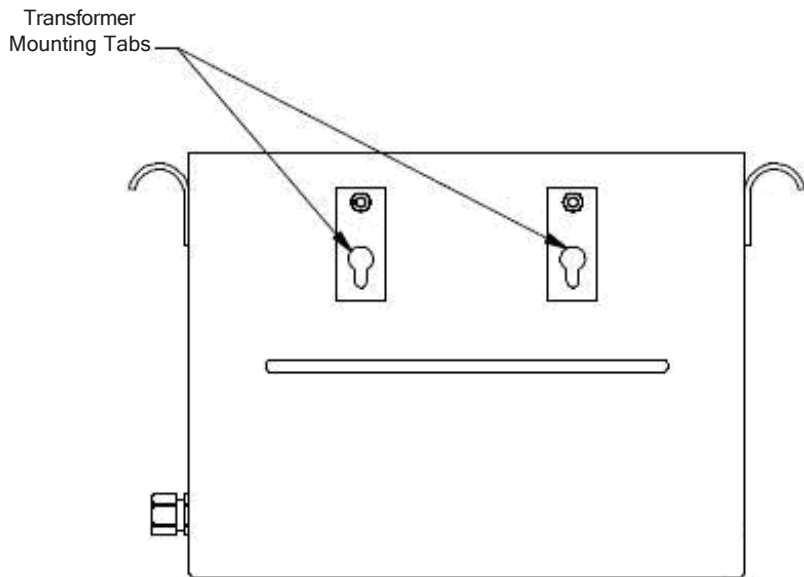


## Assembling and Wiring the Transformer

1. Remove the top cover from the transformer by loosening the six (6) pan head screws.



2. Remove the knockouts from both sides of the transformer. Note the location of the mounting tabs.



3. Attach the two (2) cordgrips to the transformer using the 3/4 NPT locknuts.
4. Wire and label according to the schematic (see Table 1) that was provided. Use the ring terminals, pan head screws, lock washers and hex nuts to connect wires.

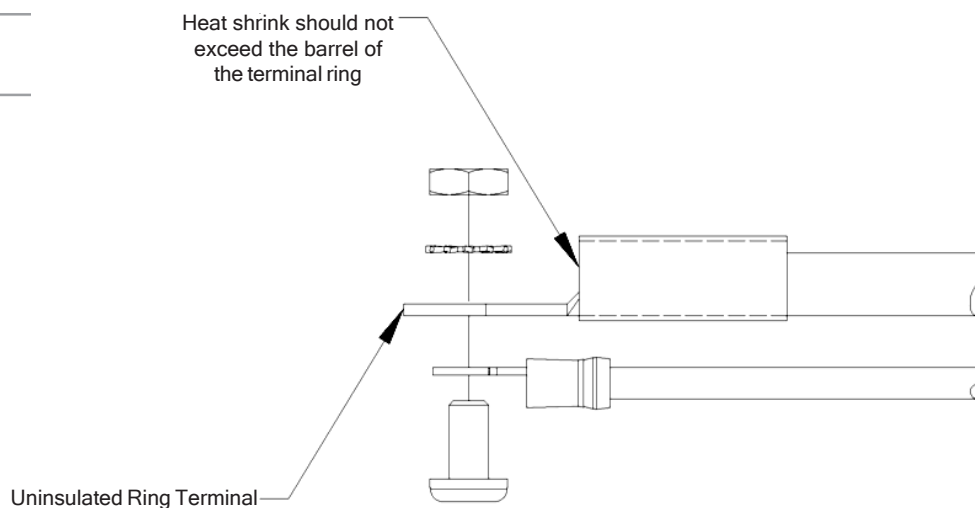


Use two (2) layers of Teflon heat shrink (094XX033) over the barrel of the larger ring terminals except for the ground.

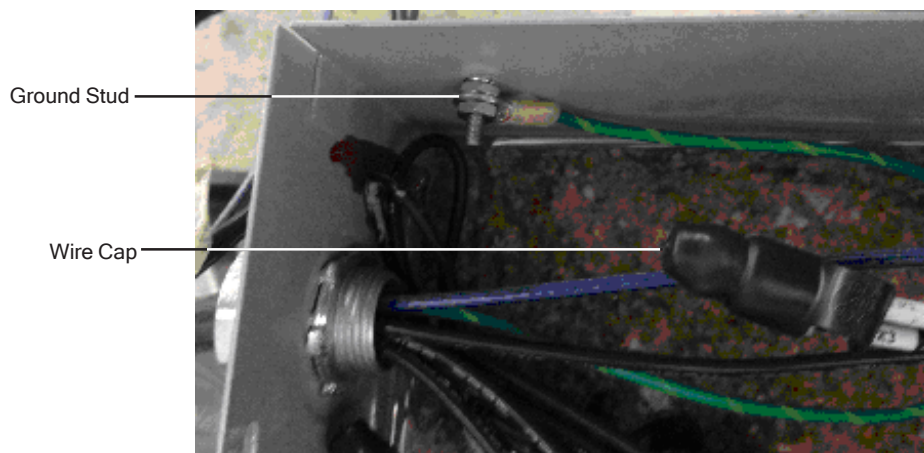
---

*Assembling and Wiring the Transformer - Continued*

---



5. Place a wire nut over the unused leads in the transformer.
6. Place a cap (075xx406) over every connection and wire nut inside of the transformer except for the ground stud.

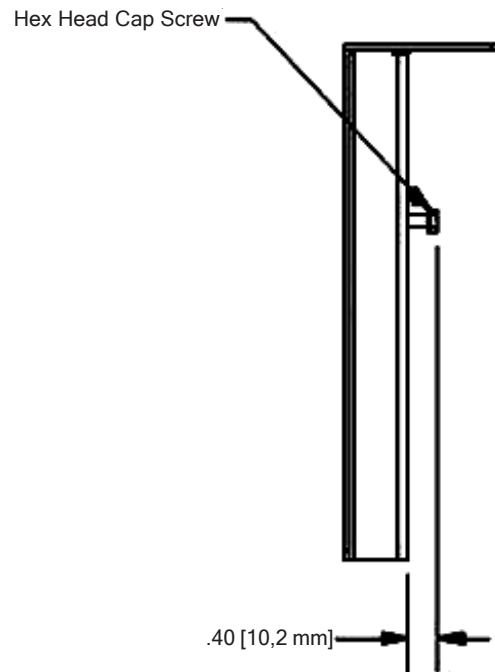


7. Route the three black wires through the cordgrip on the right side of the transformer.
8. Thread the hex head cap screws into the mounting holes on the bracket. The top of the screw should be .40" above the top of the bracket.

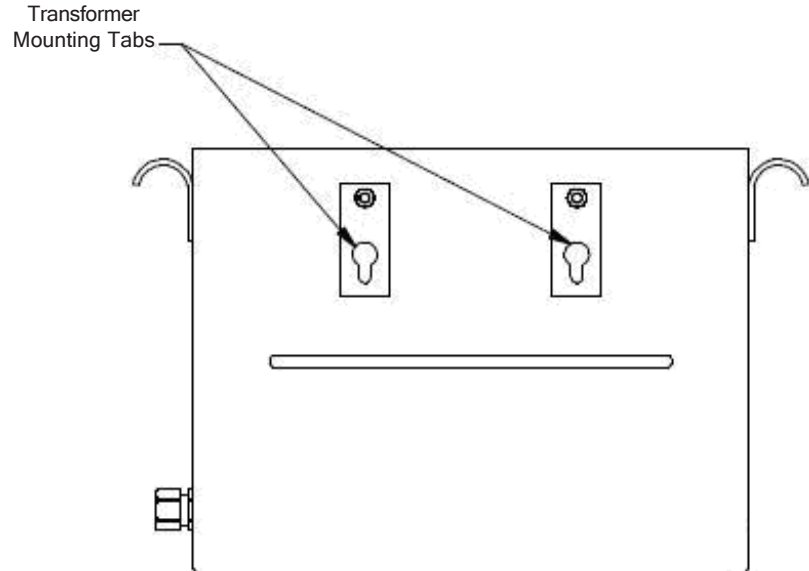
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Assembling and Wiring the  
Transformer - Continued

---

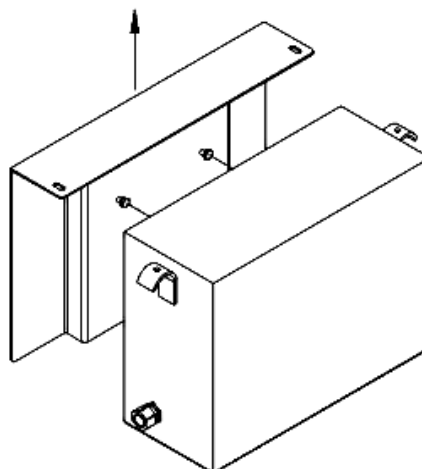


9. Align the bracket so that the head of the screw goes through the mounting tabs on the transformer.



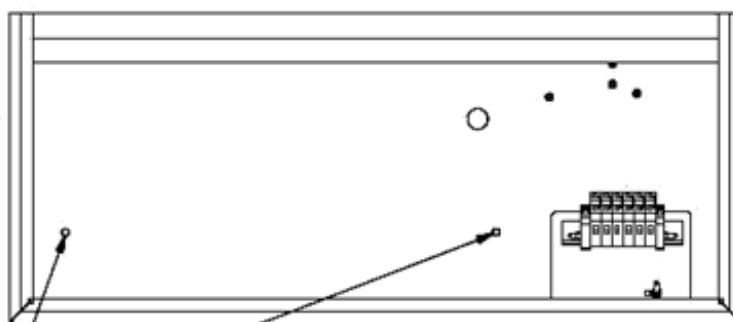
10. Slide the bracket up and tighten the two (2) hex head cap screws that were attached in step #9.

Assembling and Wiring the  
Transformer - Continued



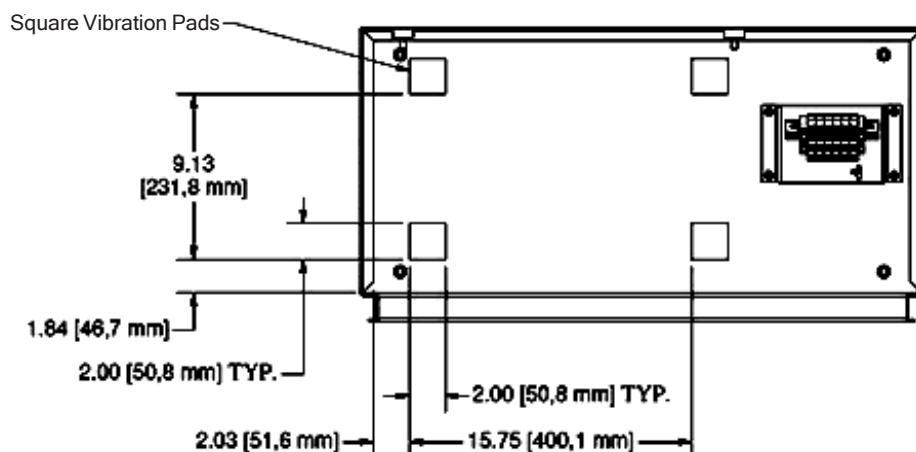
## Installation

1. Open the door on the electrical cabinet.
2. Place the damping mounts on the two (2) studs on the back of the cabinet.



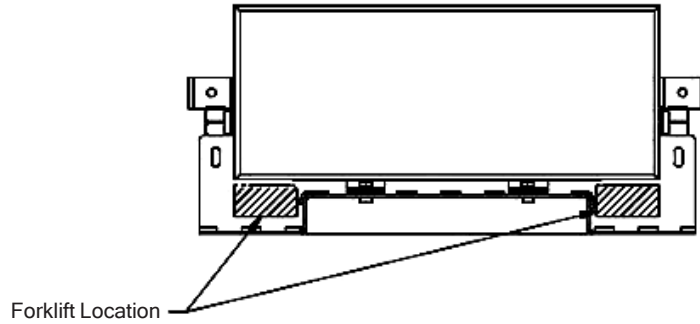
Bracket Mounting Studs

3. Place the four (4) square vibration pads on the bottom of the electrical cabinet as shown below. Place the thicker pad down first followed by the thinner pad.



Installation - Continued

- Place the transformer assembly into the cabinet using a small forklift (Model #PCBFL-64-25 or similar). Make sure to line up the mounting studs on the back panel.



- Push the transform back carefully until the bracket is flush with the damping mounts on the mounting studs.

**WARNING!** Be careful not to hit the lip of the electrical cabinet.

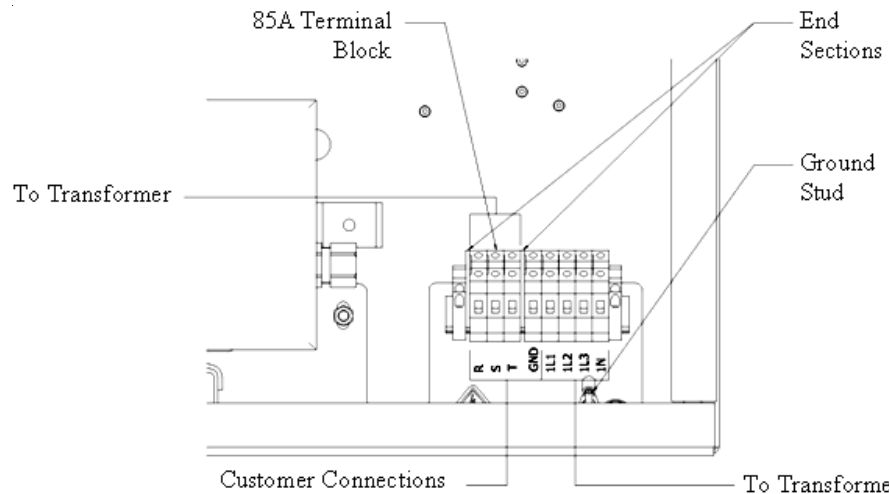


- Lower the transformer carefully until the bracket hits the damping pads on the bottom of the electrical cabinet.
- Remove the forklift carefully.

**WARNING!** Be careful not to hit the lip of the electrical cabinet.



- Attach the bracket to the electrical cabinet using the two (2) M8 hex nets.
- Attach the three (3) 85 amp terminal blocks and the two (2) end sections to the din rail next to the transformer.



---

*Installation - Continued*

---

10. Label the three (3) new terminal blocks "R", "S" and "T".
11. Connect the wires labeled "R", "S" and "T".
12. Connect the wires labeled "1L1", "1L2", "1L3" and "1N".
13. Connect the ground terminal ring to the stud.

**WARNING!**

Check the electrical cabinet to ensure everything is connected and the power is hooked up correctly.

---

**Testing**

---

1. Connect power to the unit.
2. Verify that the main disconnect is in the "off" position and disconnect the fuses.
3. Turn on the main power.

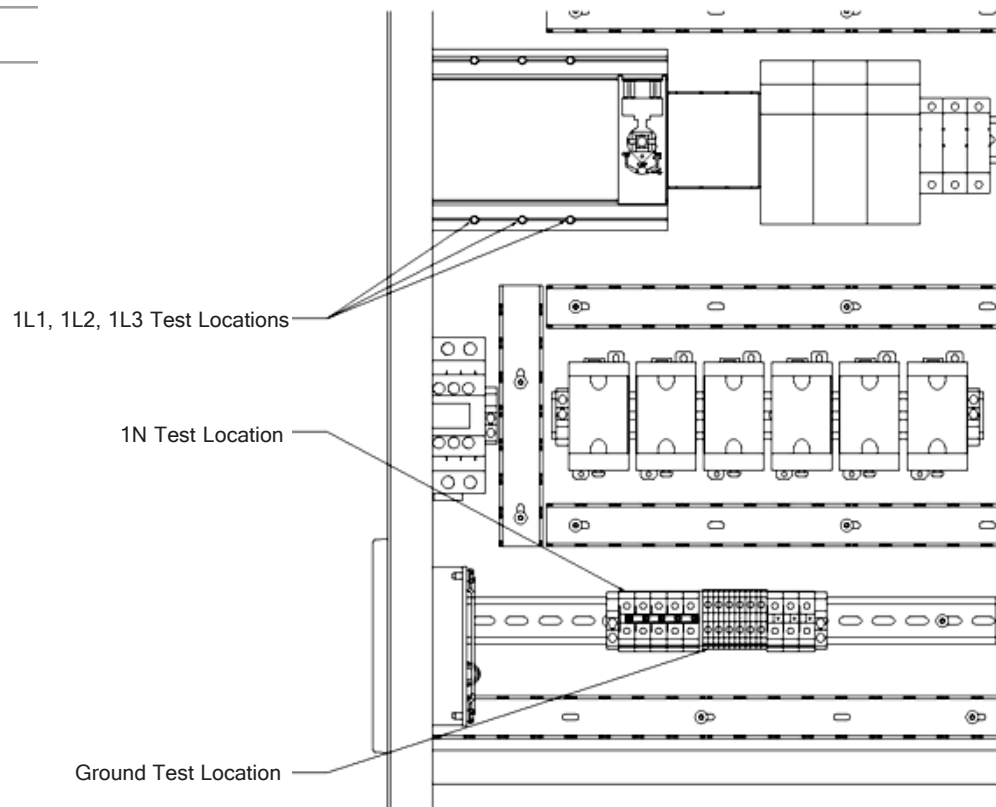
**WARNING!**

The transformer and main disconnect are now energized and all necessary precautions should be taken.

4. Use a voltmeter to measure the voltage between the following terminals:

Terminal #1	Terminal #2	Voltage (VAC)
1L1	1L2	380 ± 38
1L1	1L3	380 ± 38
1L2	1L3	380 ± 38
1L1	1N	220 ± 22
1L2	1N	220 ± 22
1L3	1N	220 ± 22
1L1	GND	220 ± 22
1L2	GND	220 ± 22
1L3	GND	220 ± 22

## Testing - Continued



5. If the voltage readings fall within the acceptable ranges, proceed to the next step. If the voltage readings fall outside of the acceptable ranges, remove the transformer from the unit and verify the transformer was wired correctly.
6. Turn off the main power.
7. Reconnect the fuses from step #2 of this section.

---

# PUMP CHANGE PROCEDURE

3/2013

ISO250

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## Important Information

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### WARNING!



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

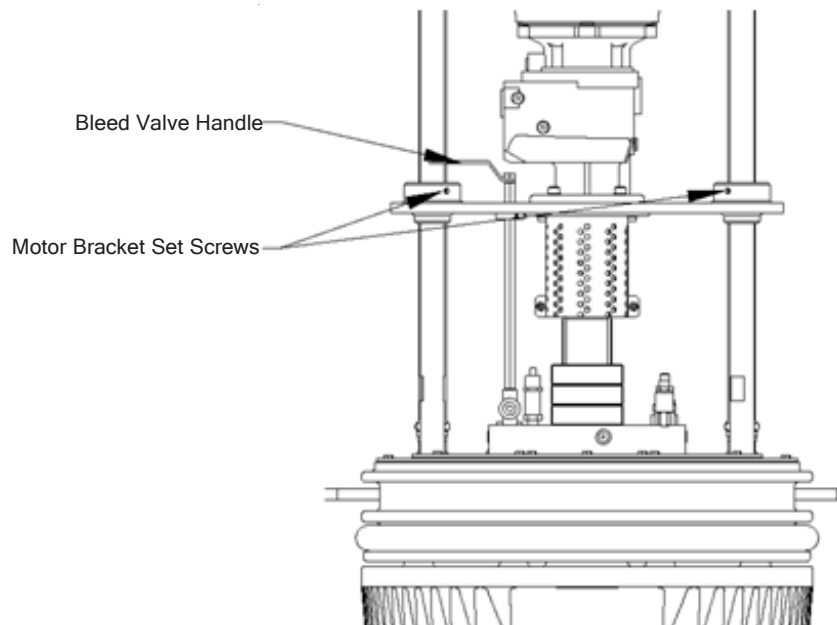
All equipment is to be installed and all connections are to be made only by qualified personnel. Components and accessories are to be installed in accordance with the instructions provided and applicable codes for the region installed. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

---

## Replacing the S-Drum Pump

---

1. Remove the handle on the bleed valve.



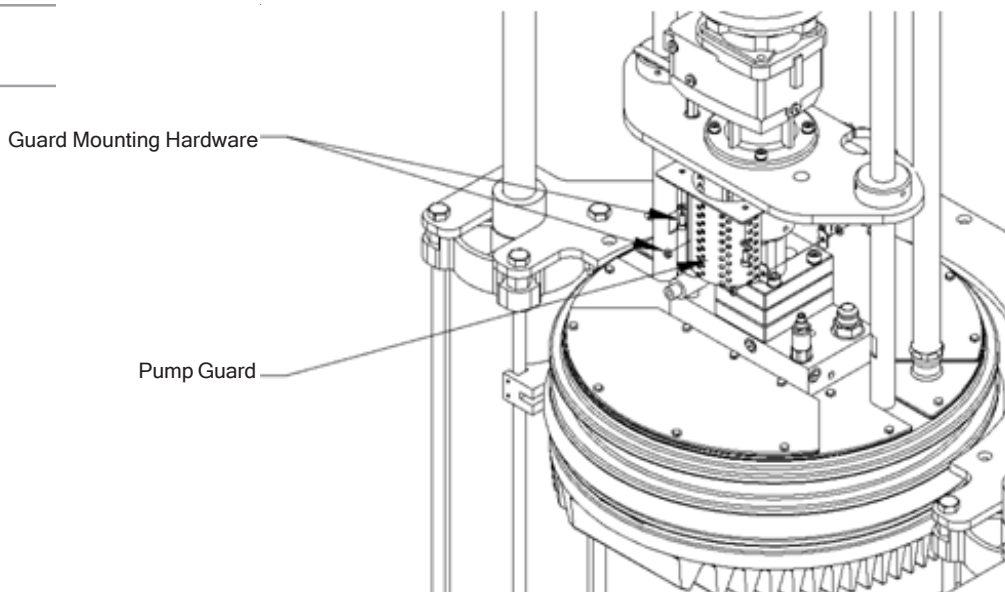
1. Place the forklift under the motor bracket (come from the back of the unit).
2. Loosen the six (6) set screws on the motor bracket.
3. Raise the motor bracket using the forklift. Tighten the set screws that were loosened in the previous step.
4. Remove the M6 socket head cap screws, washers and nuts from the pump guard.



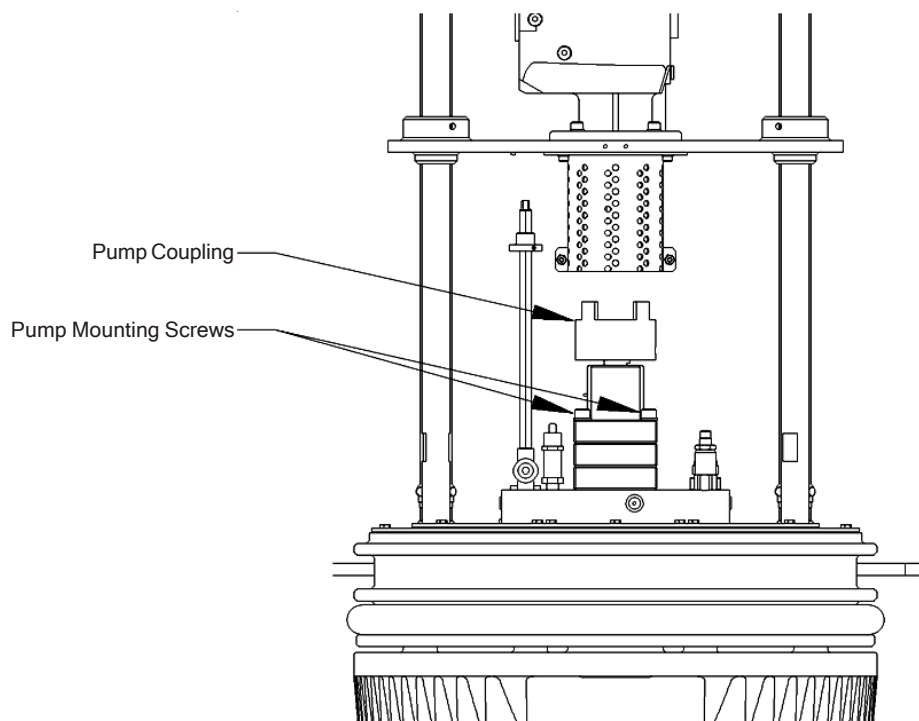
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 Replacing the  
 S-Drum Pump - Continued
 

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5. Remove the spider jaw from the coupling.
6. Loosen the M8 set screw on pump coupling.



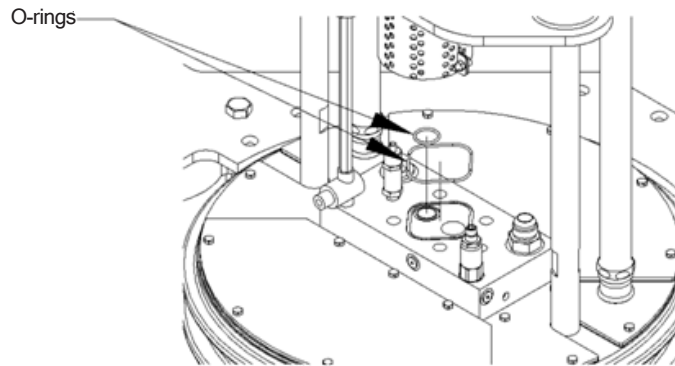
8. Remove the pump coupling (keep the key with the coupling).
9. Remove the four (4) M10 socket head cap screws securing the pump.
10. Remove the pump from the manifold.

Replacing the  
S-Drum Pump - Continued

11. Install the new pump onto the manifold.



Install new O-rings on the new pump before installing.



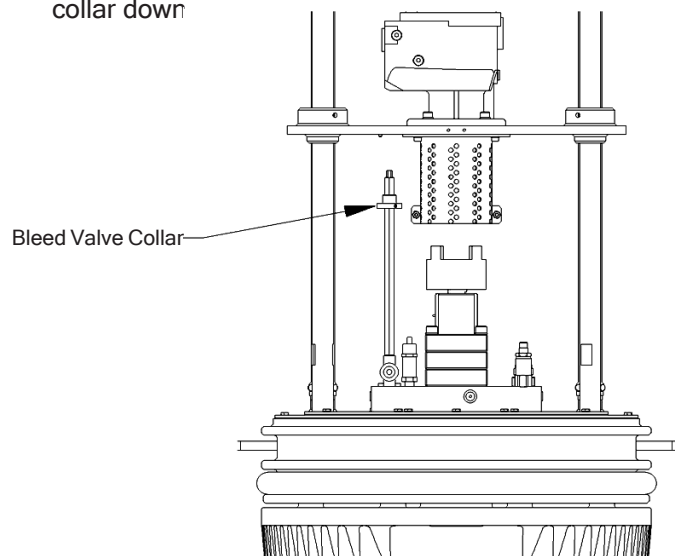
**WARNING!**



Install new pump by cross-tightening the four (4) new M10 socket head cap screws. This will ensure the pump has a uniform seal with the manifold and will not leak. (Tighten to 62 ft-lb [84 N-m]).

Allow the unit to heat up to the operating temperature. Retighten the M10 socket head cap screws to the torque specification that was provided above.

12. Place the pump coupling that was removed in steps #8.
13. Retighten the M8 set screw on the coupling (Tighten 7 ft-lb [9.5 N-m]).
14. Place the spider jaw that was removed in step #6.
15. Loosen the set screw on the bleed valve collar and slide the collar down

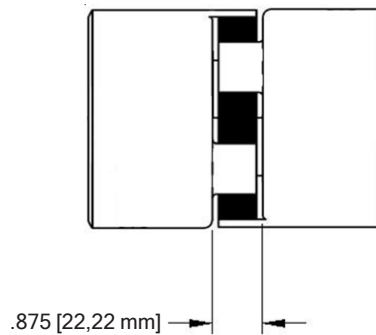


---

Replacing the  
S-Drum Pump - Continued

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16. Loosen the six (6) set screws on the motor bracket.
17. Lower the motor bracket until the distance between the motor and pump couplings is .875".



18. Check the level of the motor bracket by comparing it to the level of the base plate.
19. Retighten the set screws that were loosened in step #16.
20. Slide the bleed valve collar up until it hits the bottom of the motor bracket. Tighten the set screw.
21. Reattach the bleed valve handle that was removed in step #1.
22. Reattach the pump guard that was removed in step #5.
23. Remove the forklift.

---

# VENT HOOD ASSEMBLY INSTRUCTIONS

2/2013

IS0251

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## Important Information

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### WARNING!



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

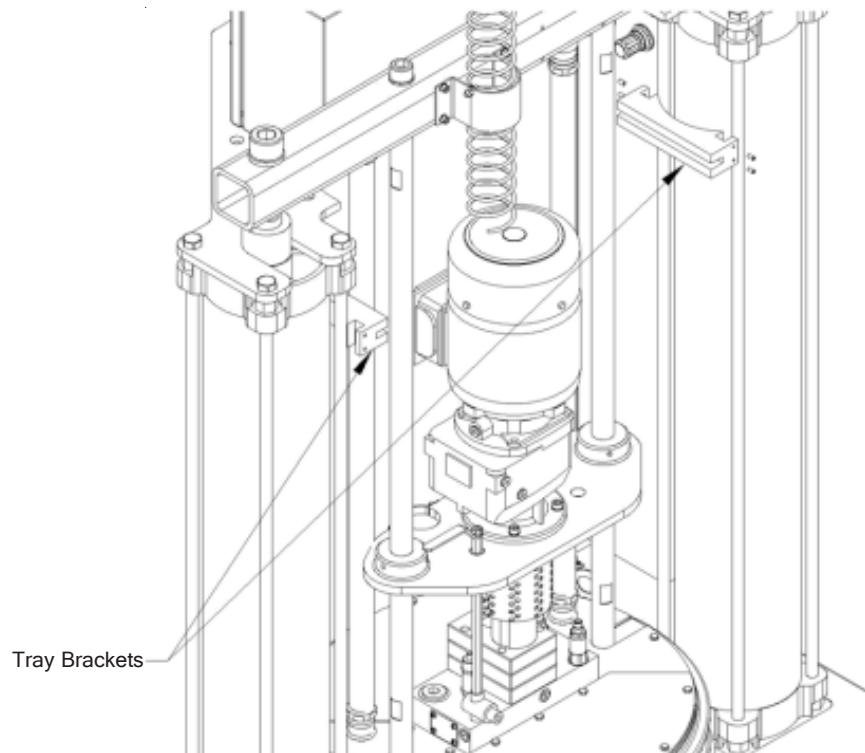
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---

## Installation

---

1. Turn off the heating zones and allow the unit to cool.
2. Lower the platen.
3. Remove the two (2) tray brackets from the cylinders by loosening the eight (8) M5 set screws.



---

Installation - Continued

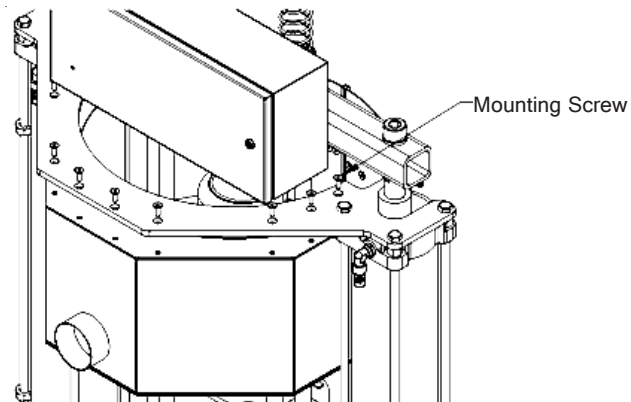
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**WARNING!**

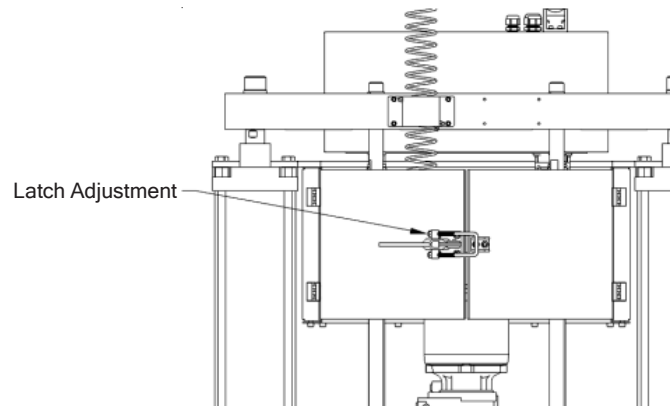
The original drip tray cannot be used with the vent hood.



4. Mount the vent hood using the ten (10) flat head M8 X 25 screws to the existing support bracket on the top of the cylinders.



5. Close the door on the vent hood. Adjust the length of the U bolts until the doors firmly close.



6. Raise the platen carefully.

**WARNING!**

Check to ensure that the o-ring on the platen clears the vent hood.

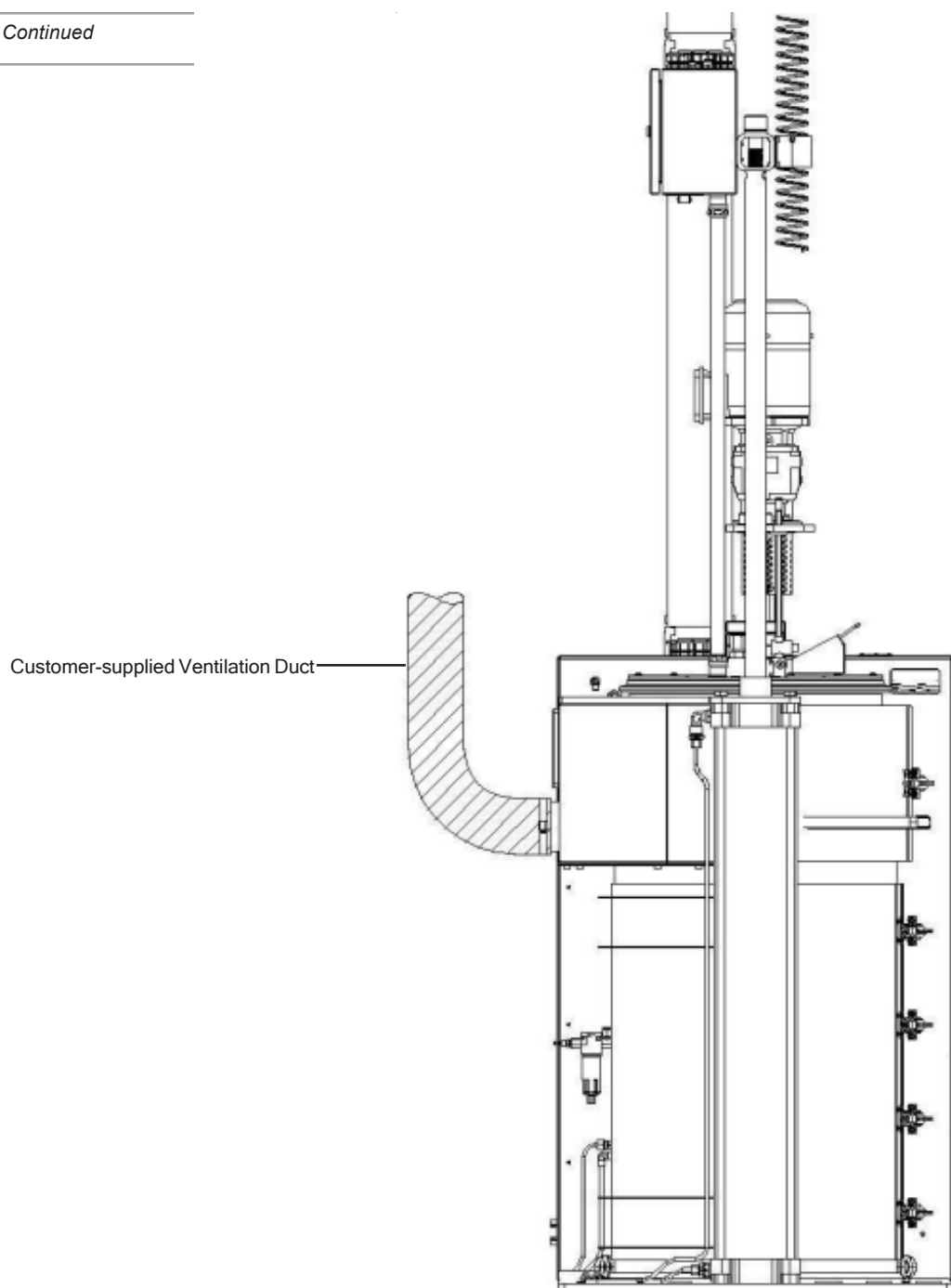


7. Verify that the drip tray fits and that it is secure.
8. Attach the customer-supplied ventilation duct to the 4" (102mm) port, on the back of the vent hoods.

---

Installation - Continued

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---

# DRUM CLAMP ASSEMBLY INSTRUCTIONS

1/2013

IS0252

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## Important Information

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**WARNING!**



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

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---

## Description

---

This installation sheet will cover how to install a drum clamp onto the S-drum base.

Part Number	Drum Type
776XX194	Fiber Drum
776XX594	Metal Drum



All pictures included in this installation sheet show a fiber drum clamp. The installation procedure is the same for a metal drum clamp.

---

## Installation

---

1. Raise the platen.
2. Turn off the heating zones and allow the unit to cool.

**WARNING!**



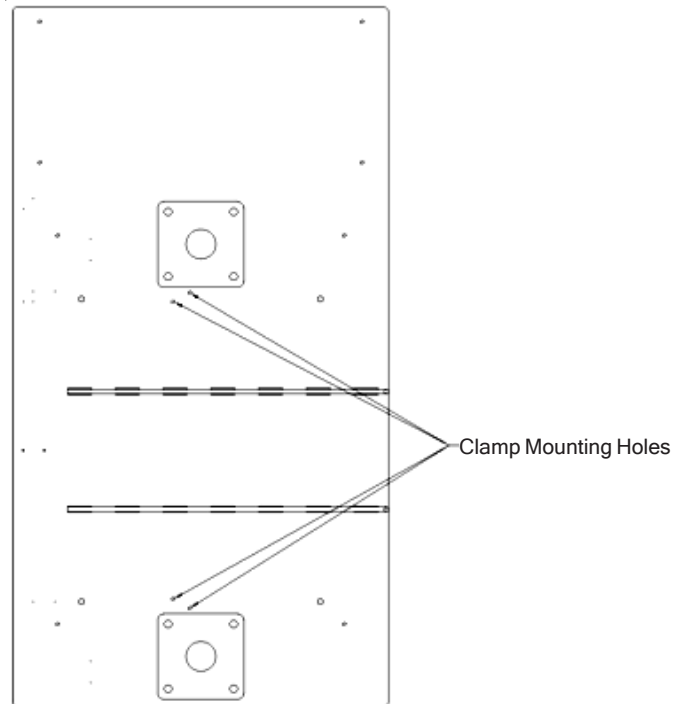
Do NOT work directly under the platen. If the cylinders lose pressure it could result in personal injury.

3. Clean the area around the clamp mounting locations.

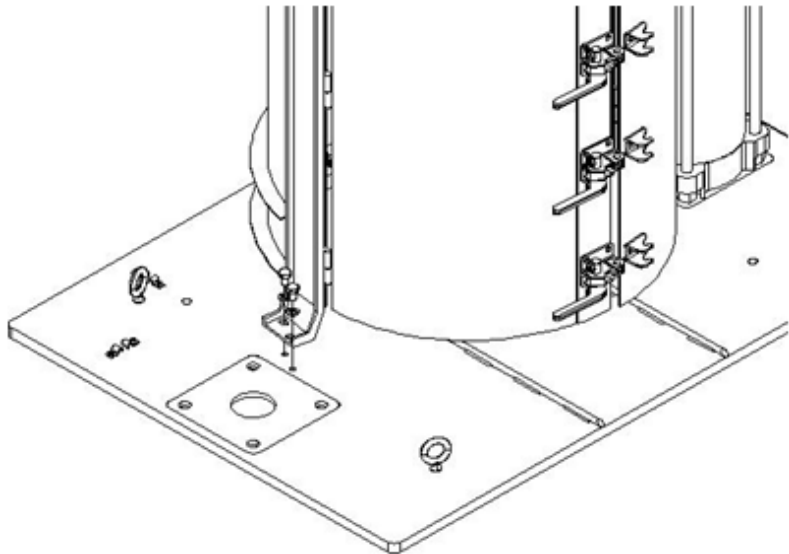
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Installation - Continued

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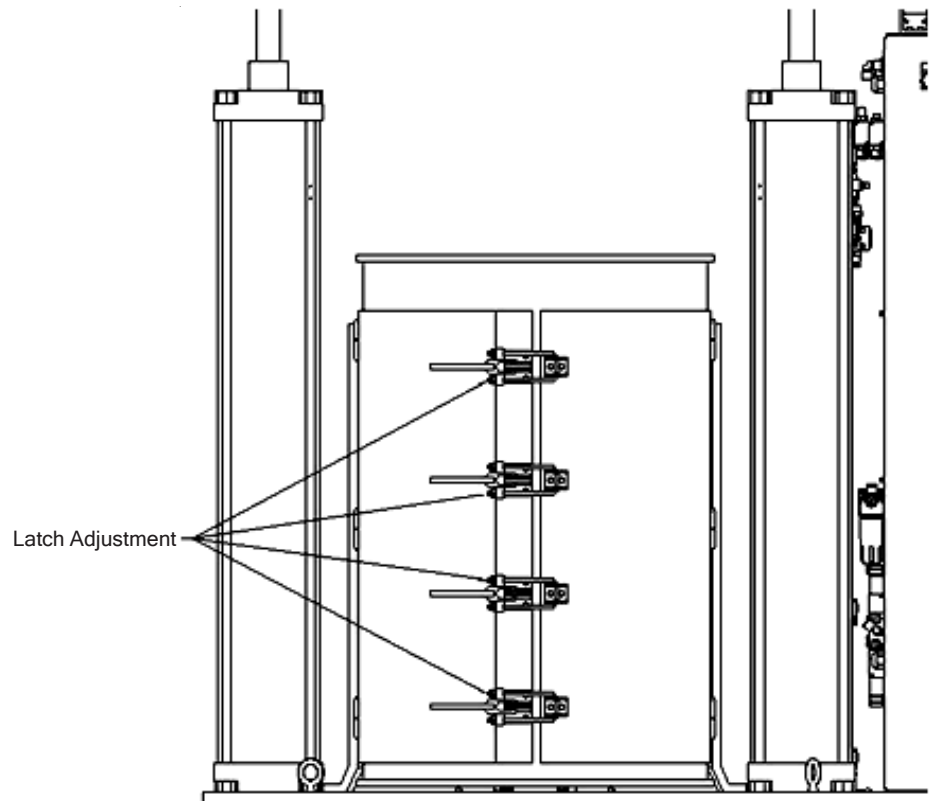
4. Mount the drum clamp to the base plate using the four (4) M10 X 20 hex head cap screws and lock washers.



5. Place a drum onto the base of the unit.
6. Close and secure the clamp around the drum. Adjust the length of the U bolts until the clamp compresses the drum.



Installation - Continued



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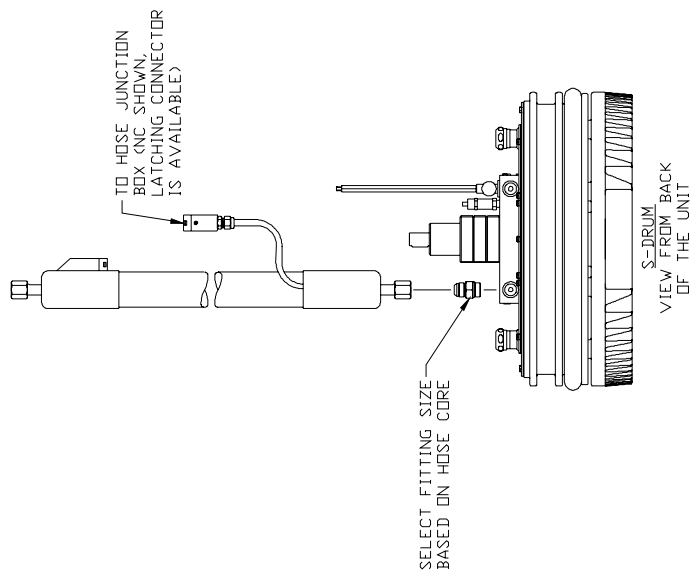
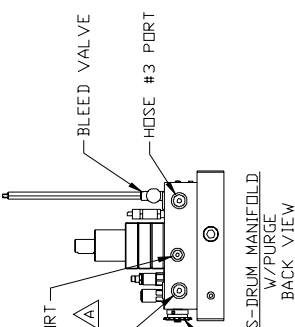
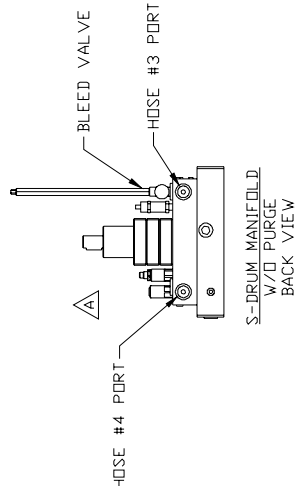
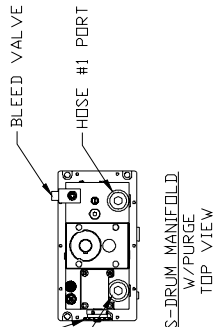
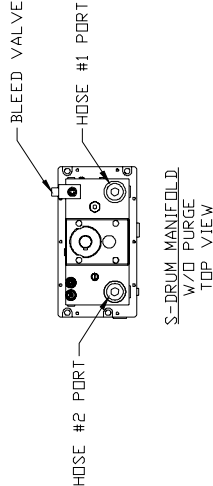
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FITTING SELECTION CHART FOR HOSE PORT #1 AND #2		
HOSE CORE #	JIC THREAD SIZE	STRAIGHT FITTING
8	3/4-16 JIC	KJC0766
12	1-1/16-12 JIC	799XX792
16	1-5/16-12 JIC	DLM8590

FITTING SELECTION CHART FOR HOSE PORT #3 AND #4		
HOSE CORE #	JIC THREAD SIZE	STRAIGHT FITTING
8	3/4-16 JIC	799XX242
		90° SWIVEL FITTING
		795XX589



- NOTES:
- ALL FITTING FOR HOSE PORTS #1 AND #2 HAVE A STRAIGHT 1-1/16-12 UNF THREAD WITH AN O-RING ON ONE SIDE TO SCREW INTO THE MANIFOLD PORT.
  - ALL FITTING FOR HOSE PORTS #3 AND #4 HAVE A STRAIGHT 3/4-16 UNF THREAD WITH AN O-RING ON ONE SIDE TO SCREW INTO THE MANIFOLD PORT.
  - TO CONNECT TO HOSE PORTS #3 AND #4 A STRAIGHT #8 FITTING AND A 90° SWIVEL FITTING ARE NEEDED.
  - INSTALL THE HOSE AND FITTING INTO THE CORRECT PORT IN NUMERICAL ORDER ON THE MANIFOLD AND JUNCTION BOX.

USED ON:	UNLESS LENGTH DIMENSIONS ARE FULL THREAD HOLES TO BE CHAMFERED ONE THREAD DEPTH MAX UNLESS OTHERWISE SPECIFIED		PROPERTY CONTAINING PROPRIETARY INFORMATION WHICH MUST NOT BE REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN PERMISSION OF VALCO ORIGINAL																
MTL:	BREAK ALL SHARP EDGES UNLESS OTHERWISE SPECIFIED (RIS MAX)		TOLERANCES - EXCEPT AS NOTED																
FINISH:	DRAWN BY KJC	<table border="1"> <tr> <td>MACHINED SURFACES</td> <td>125</td> <td>ANGULAR</td> <td>± 1/2 DEG.</td> </tr> <tr> <td>INCHES</td> <td>± .030</td> <td>MILLIMETERS</td> <td>± .76</td> </tr> <tr> <td>DECIMAL .XX</td> <td>± .010</td> <td>DECIMAL .XX</td> <td>± .25</td> </tr> <tr> <td>DECIMAL .XXX</td> <td>± .005</td> <td>DECIMAL .XXX</td> <td>± .13</td> </tr> </table>	MACHINED SURFACES	125	ANGULAR	± 1/2 DEG.	INCHES	± .030	MILLIMETERS	± .76	DECIMAL .XX	± .010	DECIMAL .XX	± .25	DECIMAL .XXX	± .005	DECIMAL .XXX	± .13	TITLE
MACHINED SURFACES	125	ANGULAR	± 1/2 DEG.																
INCHES	± .030	MILLIMETERS	± .76																
DECIMAL .XX	± .010	DECIMAL .XX	± .25																
DECIMAL .XXX	± .005	DECIMAL .XXX	± .13																
REV: A ADDED INT. RELIEF VALVE	APPROVED			FITTING SELECTION GUIDE FOR VARIOUS HOSE SIZES S-DRUM MANIFOLD PORTS															
				DRAWING NUMBER															
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				OF															
				998IS747-01															
				SUPERSEDES															
				SUPERSEDED BY															

---

# ALARM BEACON ASSEMBLY INSTRUCTIONS

3/2013

IS0255

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## Important Information

---

### WARNING!



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

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The equipment may still be energized even after the circuit breaker or main power switch is off.

All equipment must be properly grounded and fused in accordance with rate current consumption (refer to the equipment identification plate).

---

## Description

---

This instruction sheet will explain how to install a beacon assembly for the S-Drum hot melt unit.

Parts Included with Kit			
P/N	1 Light	3 Lights	Siren
105xx334	X		
105xx335		X	X

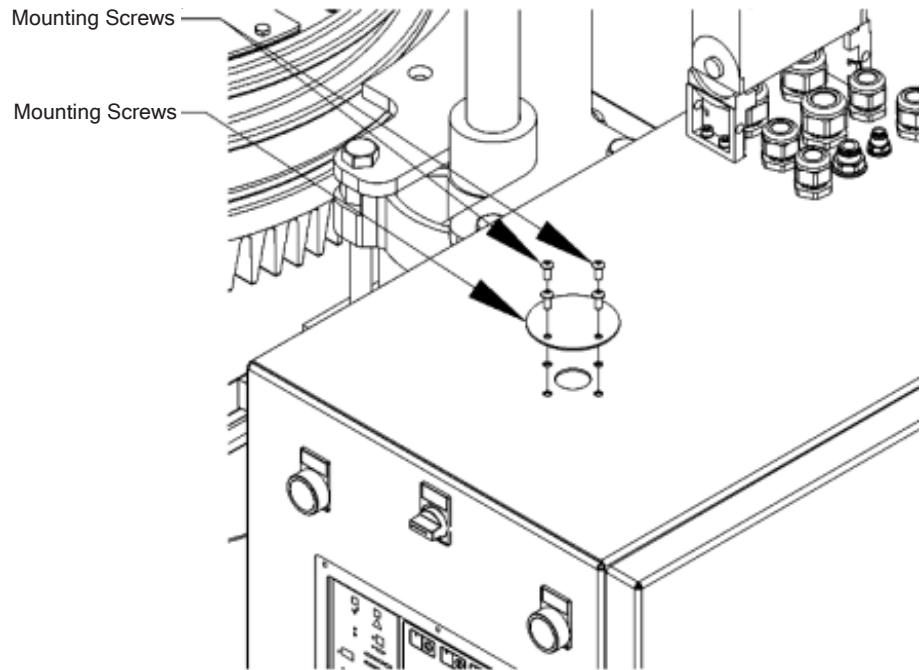
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## Installing the Beacon Assembly

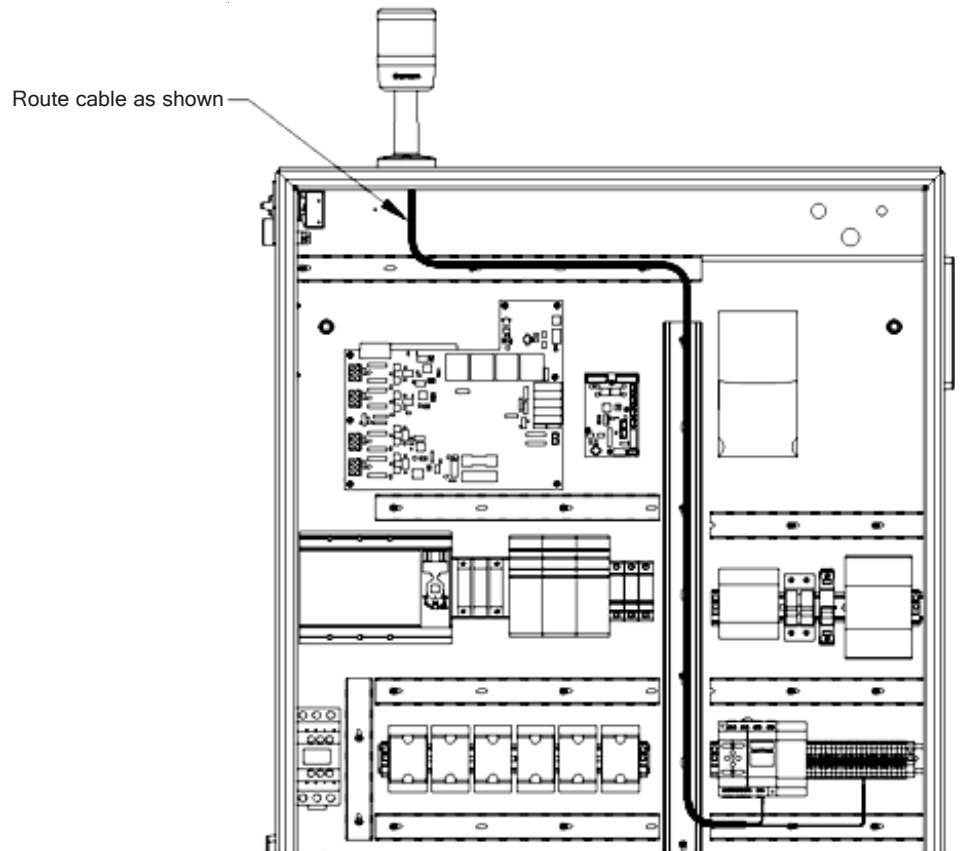
---

1. Turn off the unit and disconnect the power.
2. Open the electrical cabinet.
3. Remove the beacon cover plate and screws.

Installing the Beacon Assembly -  
Continued



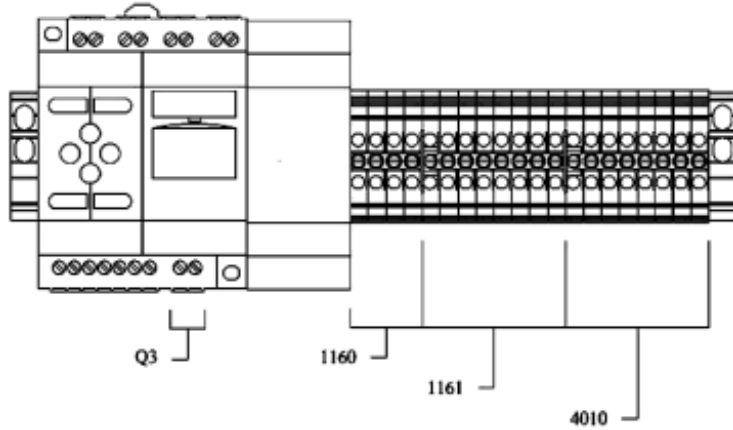
4. Mount the beacon assembly using the four (4) M5 X 8 socket head cap screws.
5. Route brown/blue cable through the cable ducts indicated below.



Installing the Beacon Assembly -  
Continued

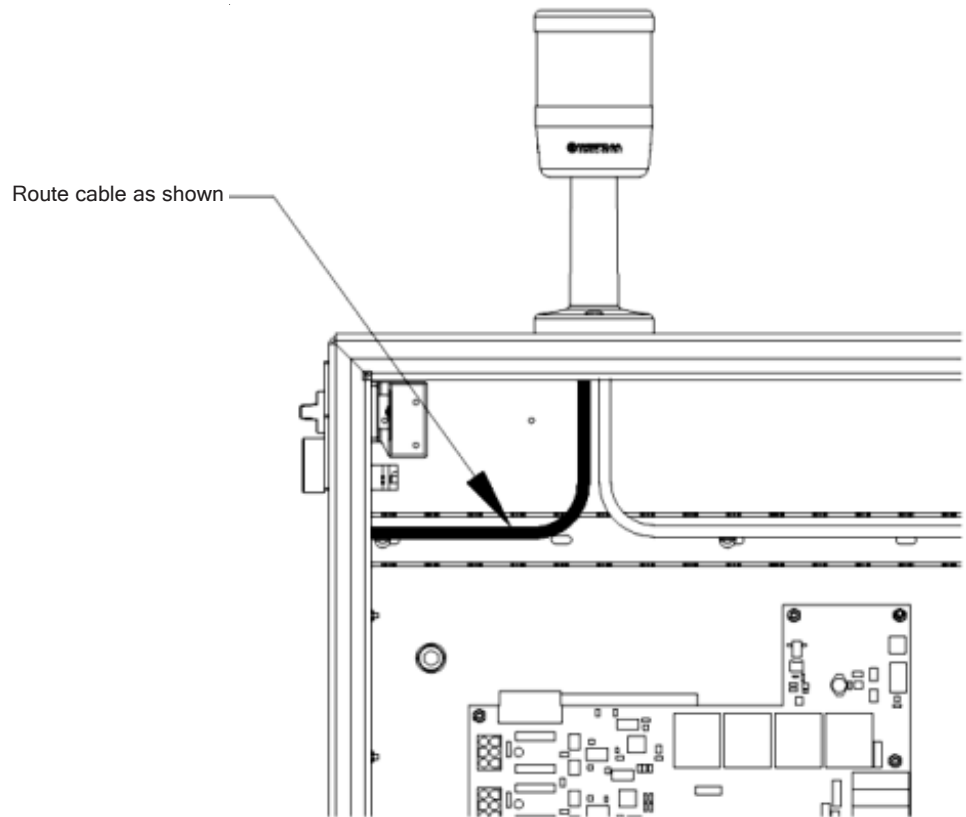
- Attach the blue and brown wires to the PLC and terminal block, as shown below.

Wire Locations		
Wire Color	Brown	Blue
Location	Q3	1161



If installing a single light beacon assembly proceed to step 9.

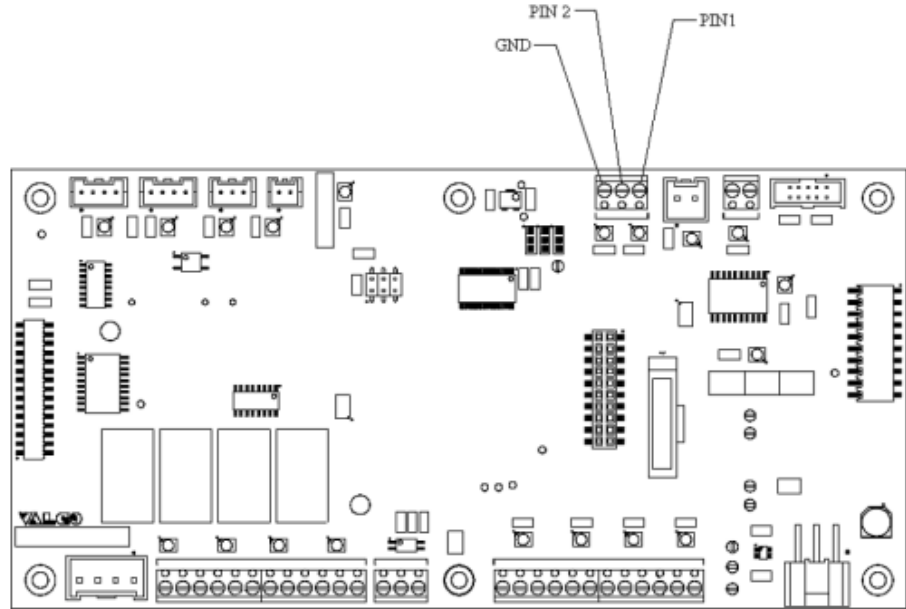
- Route the black/white wire cable through the cable duct indicated below.



Installing the Beacon Assembly -  
Continued

- Attach the black and white wires to the universal temperature control, as shown below.

Wire Locations	
Pin 1	Pin 2
Black	White



*Universal Temperature Control*

**WARNING!**




Check the electrical cabinet to ensure everything is connected and the power is hooked up correctly.

- Close the electrical cabinet.

## Enabling the Beacon

(For the 3 Light Beacon Assembly Only)

1. Turn on the unit.
2. Go to the setting screen by pressing .
3. Unlock the control by using the level 3 password, "6550".
4. Go to the setting screen by pressing again.
5. Go to the "System" screen.



6. Select "Beacon/Alarm Setup".




7. Enable beacon #1 and set to "Setback On".



8. Enable beacon #2 and set to "Alarm".

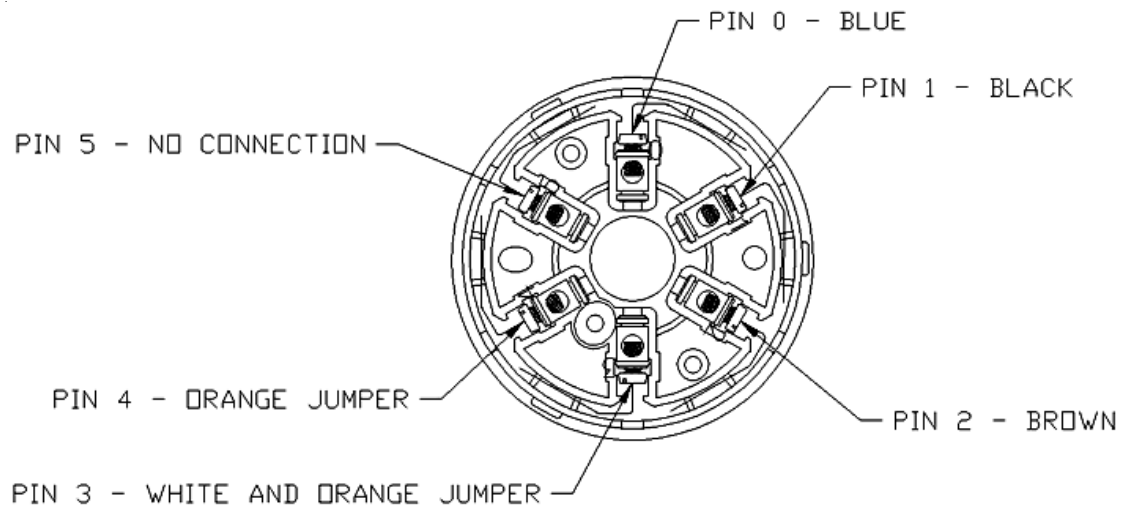


 "Beacon 1" is the blue light and "Beacon 2" is the red light. The siren will sound when the red light is on. The amber light is controlled through the PLC instead of the temperature control.

## To Disable the Siren

(For the 3 Light Beacon Assembly Only)

1. Turn off the unit and disconnect the power.
2. Twist the blue light counter-clockwise and remove.
3. Remove the orange jumper wire that is connected to pins 3 and 4 and discard.



4. Replace the beacon assembly by aligning the white lines and twisting it clockwise until it locks.



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# ADDITIONAL ZONE UPGRADE PROCEDURE

2/2013

IS0253

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## Important Information

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**WARNING!**



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

All equipment is to be installed and all connections are to be made only by qualified personnel. Components and accessories are to be installed in accordance with the instructions provided and applicable codes for the region installed. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

**WARNING!**



The equipment may still be energized even after the circuit breaker or main power switch is off.

All equipment must be properly grounded and fused in accordance with rate current consumption (refer to the equipment identification plate)

Gauge and insulation for power supply must be adequate to handle rated current consumption.

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## Description

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This instruction sheet will explain how to add two additional hose cordsets to the junction box for the S-Drum hot melt unit. These instructions cover both NC and Latching connectors.

Schematic Part Number		
Hoses	NC	Latching
Hoses 1-4	999XD776-08	999XD776-04
Hoses 5-6	999XD776-07	999XD776-03

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## Installation

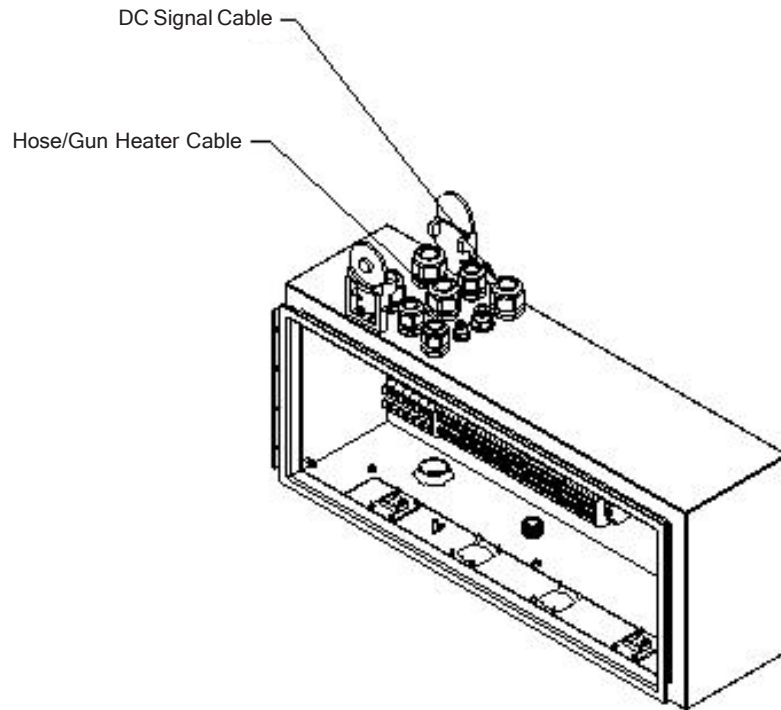
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1. Lower the platen.
2. Turn off the unit and disconnect the power.
3. Open the junction box.
4. Disconnect the DC Signal cable from the terminal blocks inside of the junction box.

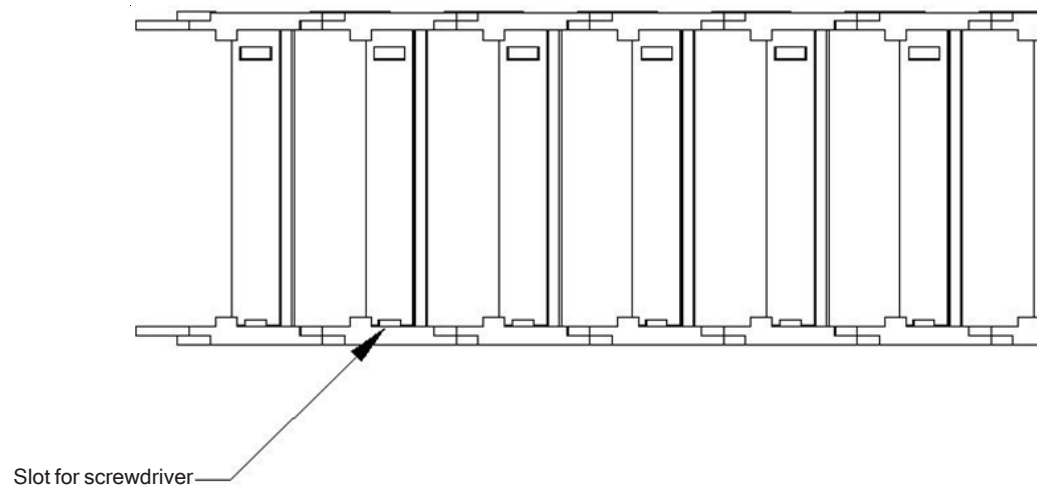
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Installation - Continued

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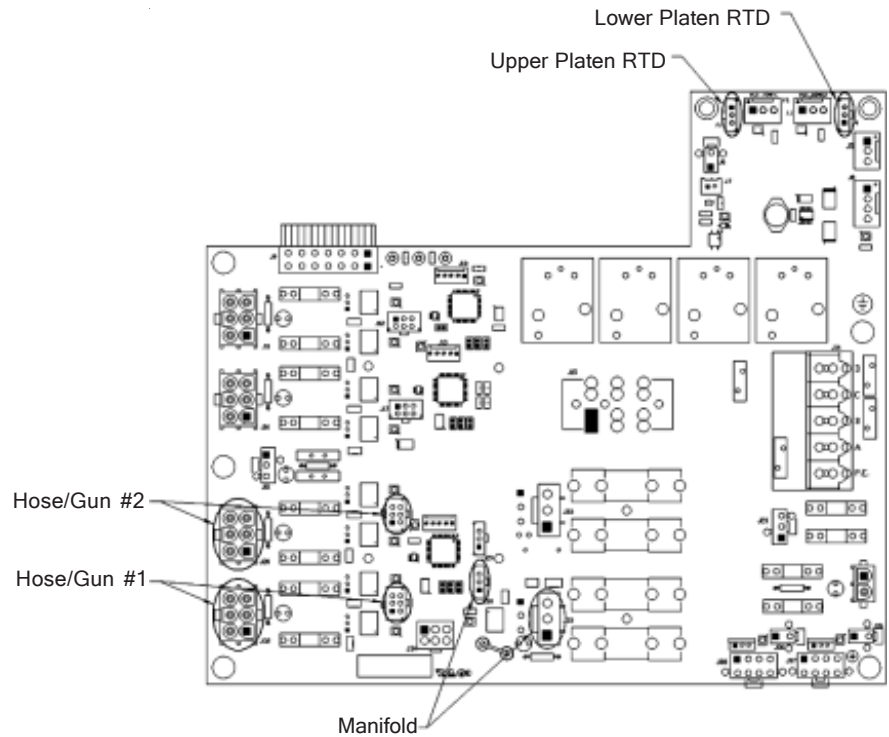


5. Disconnect the Hose/Gun Heater cable from the terminal blocks inside of the junction box.
6. Loosen the two (2) cordgrips on the top of the junction box and pull the cables out.
7. Open all of the links on the cable track using a flathead screwdriver to pry them open.

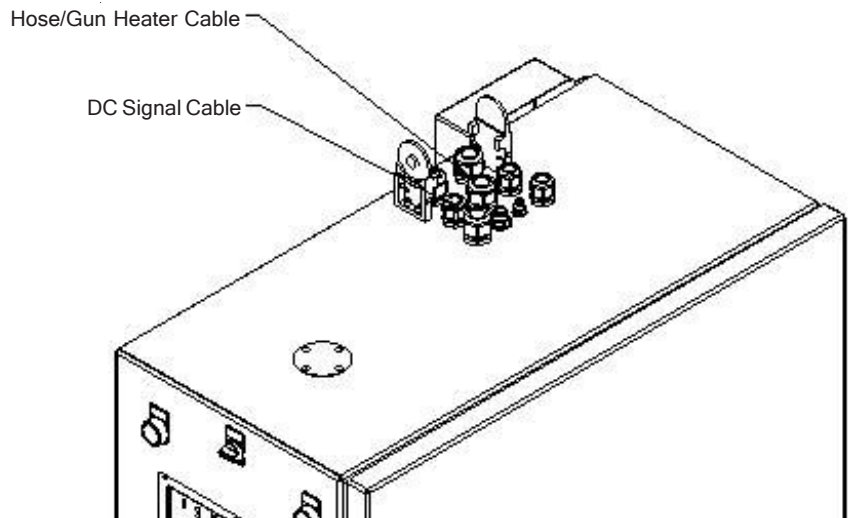


8. Disconnect the cables from the power board as indicated below.

Installation - Continued



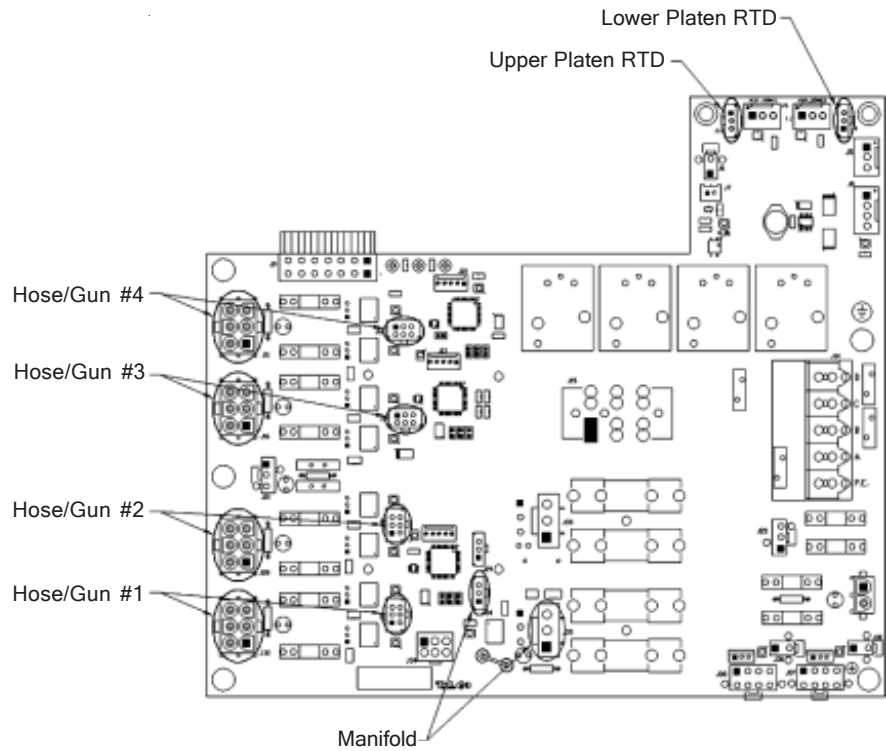
9. Loosen the two (2) cordgrips on the top of the electrical cabinet and pull the cables out.



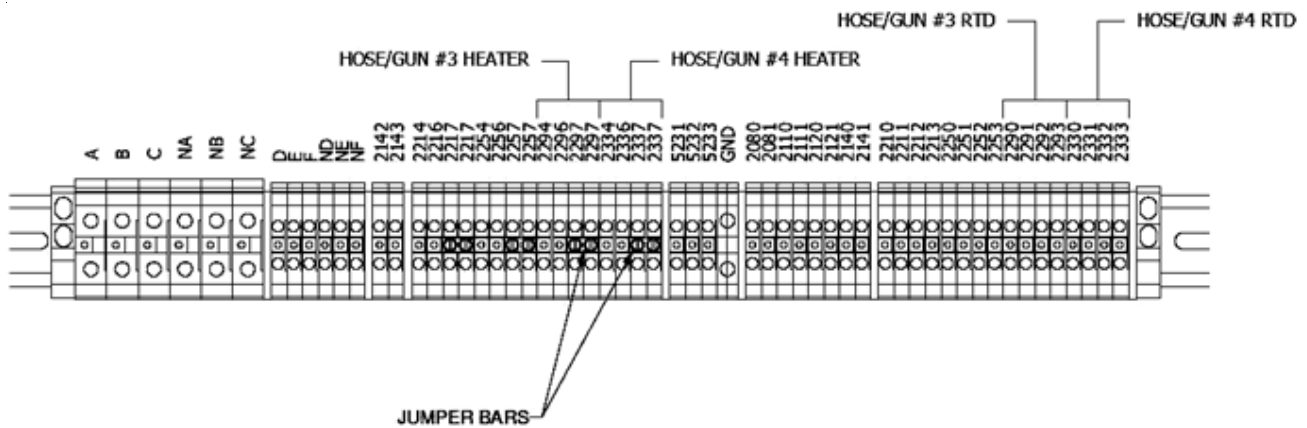
10. Feed the new DC Signal cable through the cordgrip on the top of the electrical cabinet.
11. Feed the new Hose/Gun Heater cable through the cordgrip on the top of the electrical cabinet.

Installation - Continued

12. Lay the new cables into the cable track.
13. Connect the cables to the power board as indicated below.

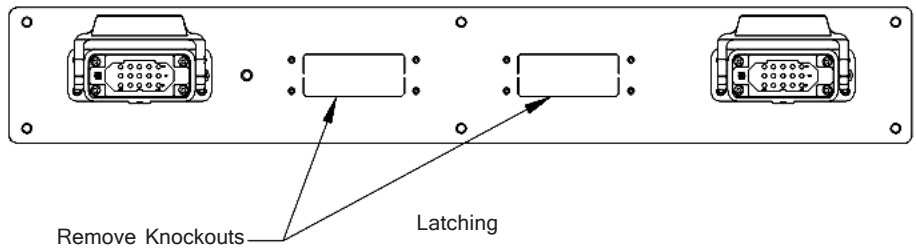
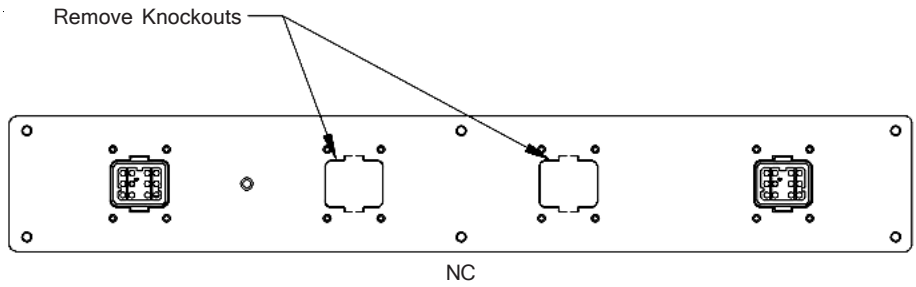


14. Feed the new cables through the cordgrips on the top of the junction box.
15. Tighten the two (2) cordgrips that were loosened in step #9.
16. Tighten the two (2) cordgrips that were loosened in step #6.
17. Close all of the links on the cable track.
18. Add the terminal blocks to the DIN rail as shown below.

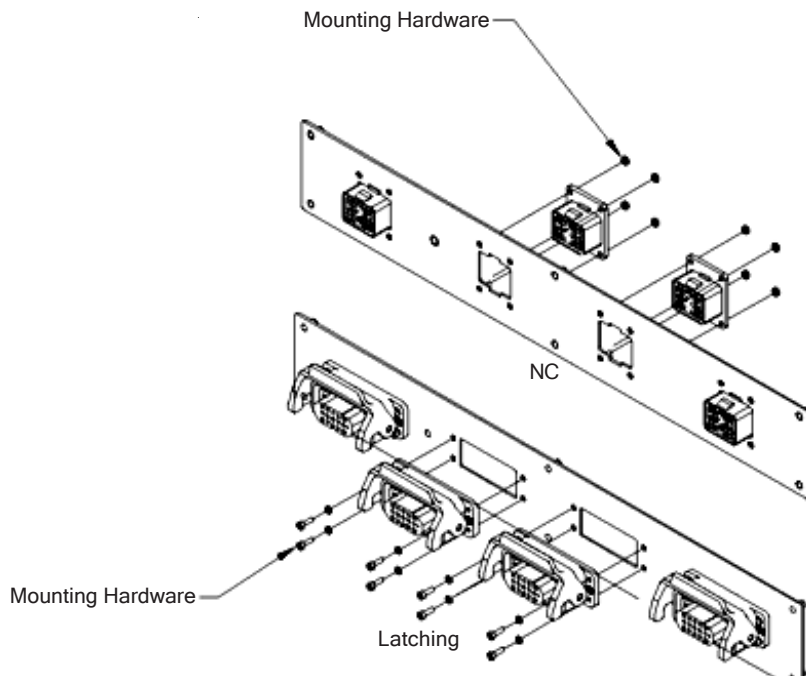


Installation - Continued

19. Connect the flying leads to the terminal blocks as indicated on the schematic (see Table 1) that was provided.
20. Remove the two (2) knockouts carefully from the hose connector plate.



21. Install the new hose connectors into the plate using mounting hardware that was provided.

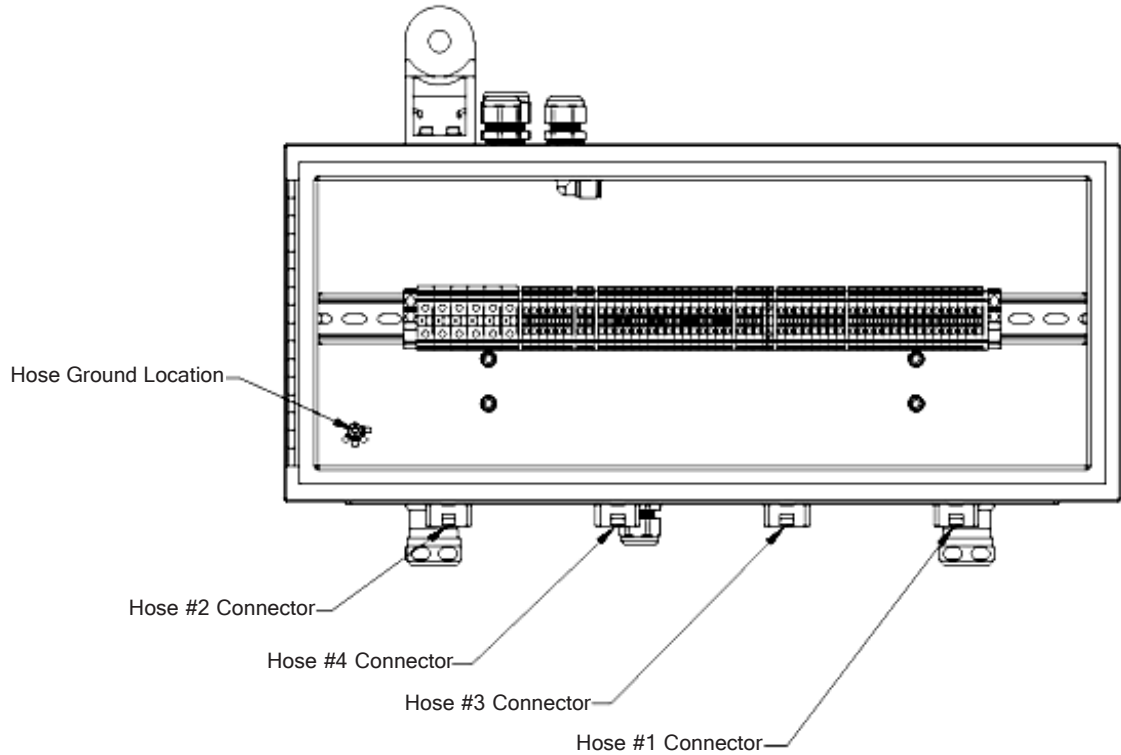


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 Installation - Continued
 

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22. Connect and label the wires according the schematic provided (see the table under “Description,” page 1).
23. Attach the ground wire from the hose connectors to the location indicated below.

**WARNING!**

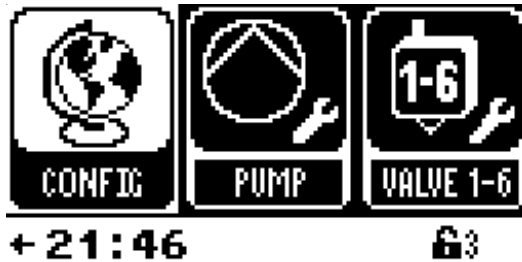
Check the electrical cabinet and junction box to ensure everything is connected and the power is hooked up correctly.

24. Close the junction box.
25. Close the electrical cabinet.
26. Turn on the unit.
27. Go to the setting screen by pressing .
28. Unlock the control by using the level 3 password “6550”.
29. Go to the setting screen by pressing again .
30. Go the “Config” screen.

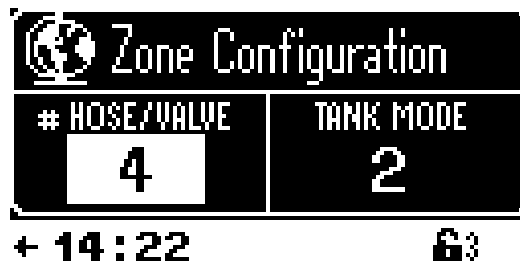
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 Installation - Continued
 

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31. Select "Zone Configuration" and adjust the number of hoses.




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## Testing

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1. Attach four (4) hoses to the junction box on the unit.
2. Attach four (4) guns to each of the hoses.
3. Turn on the new hoses and guns and set to the desired temperature (see manual for instructions).
4. Verify that the hoses and guns maintain temperature.

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# HOSE CONNECTOR CHANGE PROCEDURE

1/2013

IS0254

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## Important Information

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**WARNING!**



Read and follow all instructions, warnings, tag, and label before operating the equipment. Only qualified personnel should perform this procedure. USE OF THIS EQUIPMENT IN A MANNER OTHER THAN DESCRIBED IN THIS INSTRUCTION SHEET AND FAILING TO FOLLOW ALL INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

All equipment is to be installed and all connections are to be made only by qualified personnel. Components and accessories are to be installed in accordance with the instructions provided and applicable codes for the region installed. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A PERSONAL INJURY, DEATH, OR DAMAGE TO EQUIPMENT.

**WARNING!**



The equipment may still be energized even after the circuit breaker or main power switch is off.

All equipment must be properly grounded and fused in accordance with rate current consumption (refer to the equipment identification plate)

Gauge and insulation for power supply must be adequate to handle rated current consumption.

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## Description

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This instruction sheet will explain how to change from NC connectors to Latching connectors for the S-Drum hot melt unit. The NC schematics need to be replaced with the Latching schematics.

Schematic Part Number		
Hoses	NC	Latching
Hoses 1-4	999XD776-08	999XD776-04
Hoses 5-6	999XD776-07	999XD776-03

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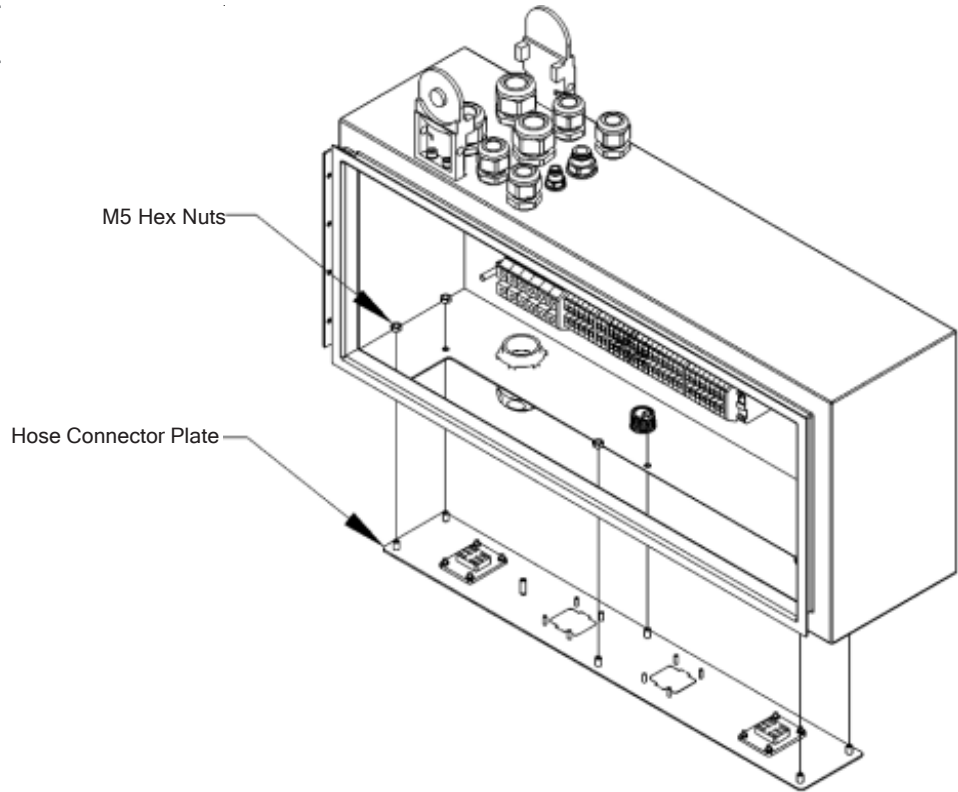
## Installation

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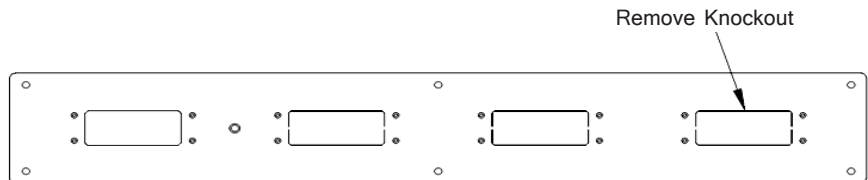
1. Lower the platen.
2. Turn off the unit and disconnect the power.
3. Open the junction box.
4. Disconnect all wires connected to the hose connector plate.
5. Remove the six (6) M5 hex nuts from the bottom of the junction box.



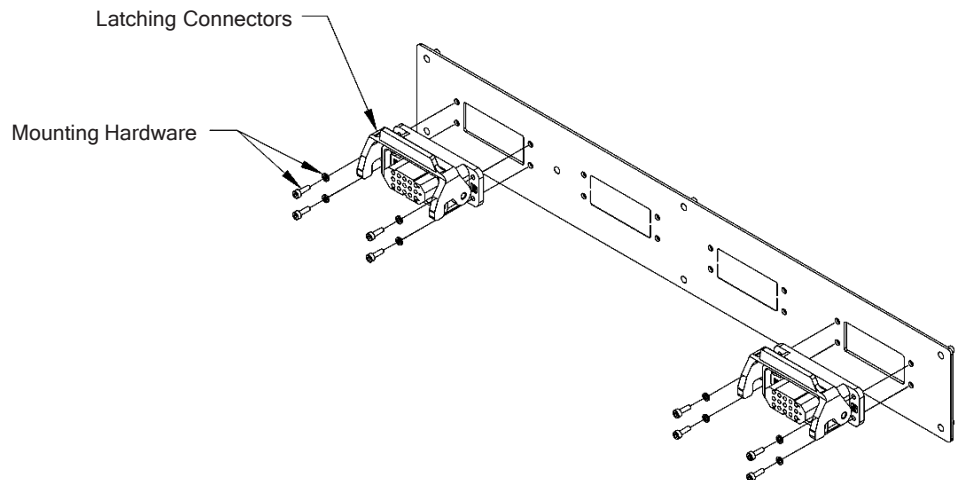
Installation - Continued



- 6. Discard the NC connector plate. Do not discard the ground wire from the plate.
- 7. Remove the knockout carefully from the Latching connector plate.



- 8. Install the Latching connectors into the plate using four (4) M3 X 10 socket head cap screws and lock washers.

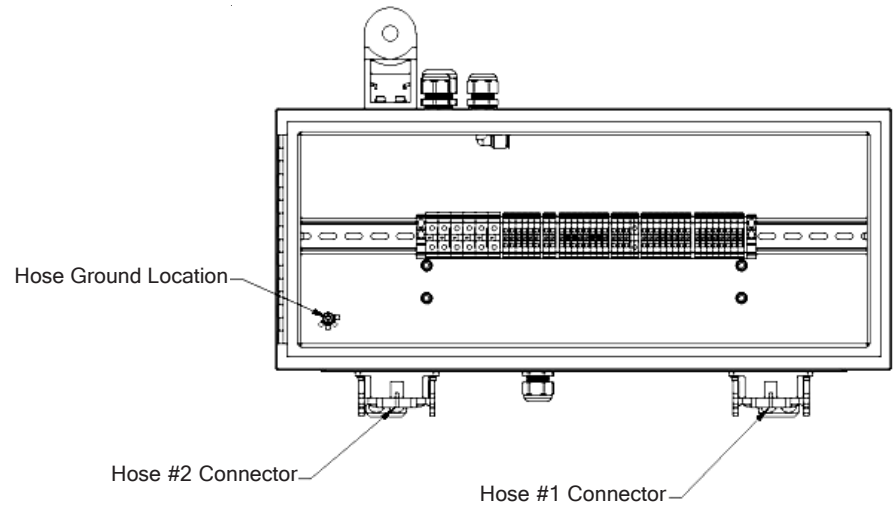


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 Installation - Continued
 

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9. Attach the Latching connector plate to the junction box using the six (6) M5 hex nuts that were removed in step #5.
10. Ground the Latching connector plate using the ground wire that was removed in step #6.
11. Reconnect and label the wires according to the provided schematic (see Table 1). Attach the ground wire from each of the hose connectors to the location indicated below.

**WARNING!**

Check the junction box to ensure everything is connected and the power is hooked up correctly.

12. Close the junction box.
1. Attach two (2) hoses to the junction box.
  2. Attach two (2) guns to each of the hoses.
  3. Turn on the new hoses and guns and set to the desired temperature (see manual for instructions).
  4. Verify that the hoses and guns maintain temperature.

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 Testing
 

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