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PRODUCT MANUAL

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NOVEMBER 2020

SS96 Hot Melt Unit

Cat. No. SS96

NOVEMBER 2020

⚠ **WARNING:**

- ☐ To avoid personal injury and damage to equipment and property, read the product manual completely before installing, operating or servicing this equipment.
- ☐ Follow all safety warnings located on this product and in the product manual. Consult the safety precautions section of the product manual for an explanation of all safety symbols used on this equipment.
- ☐ Retain the product manual for the life of this product.
- ☐ After reading this manual, if further assistance is needed, contact your factory authorized sales or service representative.

NOTE CONCERNING ILLUSTRATIONS: All illustrations within this product manual should be considered as general representations of the parts or assemblies depicted, and should not serve as mechanical drawings, nor be consulted for scope or scale. They are for reference only.

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1. SAFETY PRECAUTIONS FOR HOT MELT APPLICATOR EQUIPMENT

This manual contains important safety information and instructions. Failure to comply with these instructions can result in death, injury or permanent damage to this equipment and will void the warranty.

1.1 Intended Use

This equipment is designed for use with standard adhesive and sealant materials with flash points above 232 °C (450 °F). Use of flammable material or material not compatible with the specifications of this equipment can cause injury to operator and damage to equipment.

The manufacturer has designed this equipment for safe operation. Specified models are in compliance with EN 60204-1:1997. However, heated thermoplastics and other hot melt materials are dangerous and care must be exercised to ensure operational safety. Handling must be in accordance with hot melt manufacturer specifications. Never exceed the maximum application temperature recommended by the adhesive manufacturer.

Dispose of hot melt properly. Refer to the Safety Data Sheet (SDS) of the hot melt for recommended disposal methods.

1.2 Personal Safety

Wear Safety Goggles

Wear Heat-Resistant

Wear Protective Clothing

Wear the following protection when working on or around this equipment:

Always wear heat resistant gloves rated to 205 °C (400 °F) and allow all system temperatures to stabilize below 193 °C (380 °F) before servicing. Properly ventilate equipment according to MSDS of equipment.

Trained operators and service technicians should be aware of exposed surfaces of the unit that cannot be practically safeguarded. These exposed surfaces may be hot and take time to cool after the unit has been operating.

Keep parts of the body away from rotating parts. Do not wear loose articles of clothing when operating or servicing units with rotating parts. Remove wristwatches, rings, necklaces, or other jewelry and cover or pin up long hair before performing any work on or with the unit.

Trained operators may perform only external equipment adjustments. Trained service technicians must perform internal adjustments and service.

1.3 Electrical Safety

Determine voltage of this equipment before installation and confirm compatibility with available power. Equipment must be connected to a properly grounded circuit and installed in accordance with all applicable electrical codes. Ground fault protection must be provided in supply circuitry at site installation.

Models designed to EN60204-1: 1997 require power cords be approved to a harmonized (HAR) standard and rated for 70 °C (158 °F). A HAR approved Type B plug and strain relief for power cord are required to meet standard IEC 309. Power conducting wires must be nominal 5.3 mm2 (10 AWG) maximum and nominal 2.1 mm2 (14 AWG) minimum.

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1. SAFETY PRECAUTIONS FOR HOT MELT APPLICATOR EQUIPMENT (CONT.)

1.4 Emergency Power Disconnect

In the event of a malfunction, turn off power to the equipment at the power off switch and remove source power to the system at the nearest main disconnect.

1.5 Follow Directions

Read the product manual thoroughly before installation, operation or maintenance. Failure to do so can result in a serious accident or equipment malfunction. The manufacturer will not be held liable for injuries or damage caused by misuse of this equipment.

1.6 Safety Symbols and Signal Words

The following safety symbols and signal words are used throughout the manual and on the product to alert the reader and operator to personal safety hazards or to identify conditions that may result in equipment or property damage.

General Safety Symbols

DANGER: Indicates a hazard, which, if not avoided, will result in serious injury, including death, or equipment and property damage.

WARNING: Indicates a hazard, which, if not avoided, can result in serious injury, or equipment and property damage.

CAUTION: Indicates a hazard, which, if not avoided, can result in minor injury, or equipment and property damage.

Specific Symbols and Signal Words

DANGER: High Voltage. Can cause serious injury, including death. Disconnect electrical power at external source before servicing.

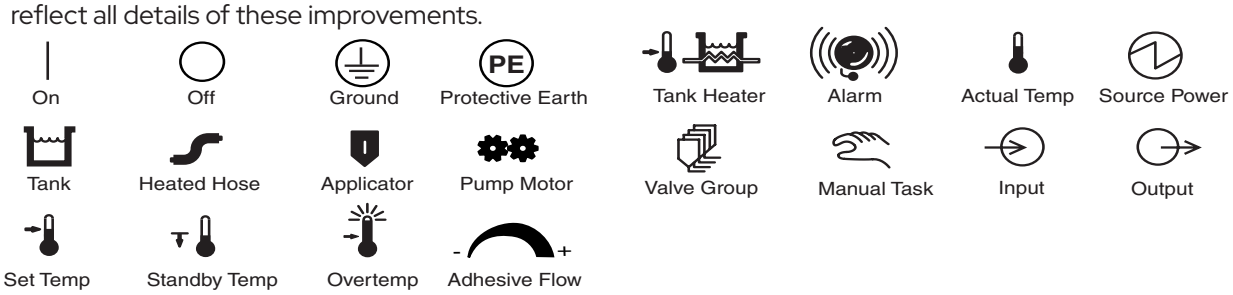
WARNING: Hot Surface. Can cause serious injury and burns. Wear heat resistant clothing, gloves and safety goggles.

WARNING: Disconnect electrical power at external source. Failure to do so can cause electrical shock.

WARNING: High Pressure. System contents under pressure. Can cause serious injury and burns or equipment and property damage. Relieve pressure before servicing.

Other Product Symbols

The manufacturer reserves the right to make design changes for product improvement. This manual may not reflect all details of these improvements.



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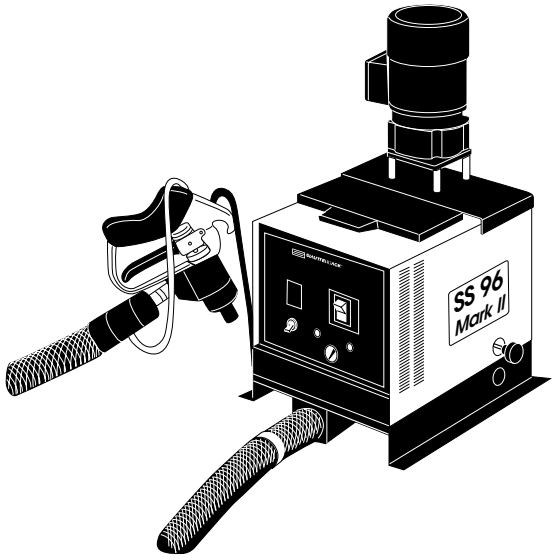
2 INTRODUCTION

2.1 Description

The SS96 Hot Melt Unit is a hot melt applicator system developed to melt and pump high viscosity butyl rubber-based sealant. The melt unit features a 10 lb (4.5 kg) capacity tank. The cylindrical design accepts briquette form butyl sealants, which are converted to fluid state and pumped by an electric motor-driven gear pump through an L2 Handgun/hose assembly.

A rotating chain and scraper assembly in the tank propels the molten butyl sealant to the pump inlet port. A 38/31 rpm 60/50 Hz 1/6 hp motor and flow control valve provide output control. Tank temperature is regulated by an adjustable bimetallic controller mounted directly on the melt unit base. Hose temperature is controlled by an adjustable thermostat with capillary bulb sensor.

The SS96 Hot Melt Unit features the proven all-electric heating and pumping system. The melt unit is housed in an industrial grade sheet metal enclosure and comes with a standard 8 ft (2.44 m) handgun/hose assembly; a 12 ft (3.66 m) hose assembly is optional.



2.2 Features

- ☐ All-electric systems available for 115 VAC power
- ☐ Pumps high viscosity materials up to 500,000 centipoise
- ☐ No compressed air
- ☐ Positive-displacement V1-675 gear pump
- ☐ A pump warm-up thermostat protects the pump drive mechanism by preventing operation below a safe temperature level
- ☐ Tank and hose/handgun temperatures independently controlled
- ☐ Over temperature protection if tank thermostat fails
- ☐ Pump output adjusts by turning external flow control knob
- ☐ Switched handgun assembly decreases pump wear and increases motor service life

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3 SPECIFICATIONS

3.1 Electrical

Input voltage ..... 115 VAC single phase
Power requirement ..... Melt unit 900 W
..... Hose, 8 ft 262 W
..... Hose, 12 ft 390 W
..... Handgun 120 W
Breaker rating ..... 15 A

3.2 Physical

Tank capacity ..... 4.5 kg (10 lb)
Hose capacity ..... 1 no. 8 hose
Shipping weight ..... 29.1 kg (64 lb)

3.3 Performance

Warm up time ..... 45–60 minutes
Melt rate ..... 3.6 kg/hr (8 lb/hr)
Viscosity ..... Maximum 500,000 cps
Temperature range:
- Melt tank ..... 37–232 °C (100–450 °F)
- Hose ..... 175–232 °C (350–450 °F)

Maximum pump flow rate:
- Motor rpm ..... 38/31 rpm @ 60/50 Hz
- Pump size V1-675
- Output ..... 18.1 kg/hr (40 lb/hr)

3.4 Environmental

Storage temperature ..... 0–60 °C (32–140 °F)
Ambient air temperature ..... 5–45 °C (41–113 °F)
Humidity ..... 30–95 R.H. (%)

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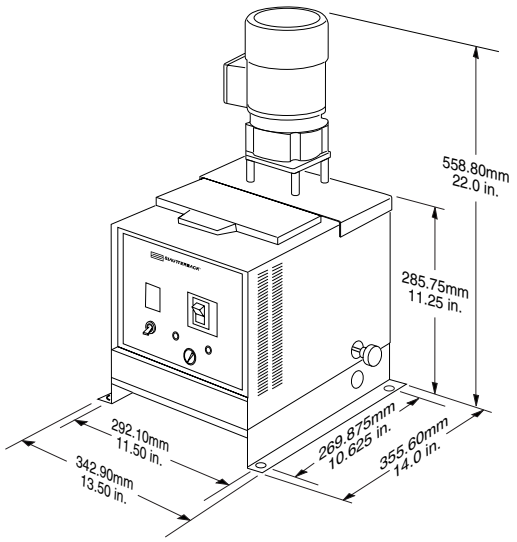
3 SPECIFICATIONS (CONT.)

3.5 Dimension



4 INSTALLATION

4.1 Setup

1. Remove all packaging material around melt unit.
2. Carefully lift melt unit out of box.
3. Unpack binder containing manuals and warranty information. Retain for future reference.
4. Unscrew four screws from plywood board base.
5. Carefully uncoil hose from around melt unit and remove bubble wrap from handgun.
6. Position melt unit for convenient servicing and easy access to control panel.
7. Use level mounting surface to prevent warping of melt unit and misalignment of pump and motor shaft.
8. Using the base mounting holes, bolt melt unit to a durable mounting surface in accordance with illustration on opposite page to prevent accidental upset and possible injury.
9. Assure all screws are tight before startup. If melt unit experiences excessive vibration, re-tighten screws.

4.2 Component Installation

1. Manual systems are generally shipped with all standard components installed. No user installation is required.
2. In the event a melt unit is received without an attached handgun/hose assembly, refer to Section 8.1, Hose Replacement.

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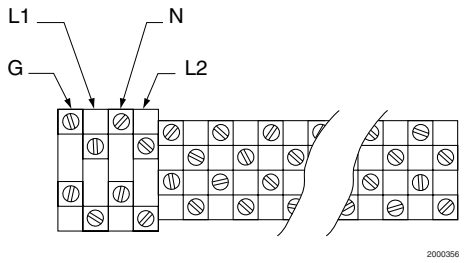
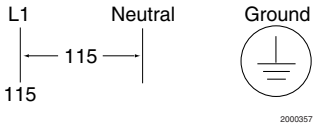
4 INSTALLATION (CONT.)

4.3 Electrical Circuits and Wiring

SS96 Melt Units use single phase 115 VAC power sources with earth ground for safety. See illustration below for terminal block location. An identification plate is attached to each melt unit on the outside rear door of the tank housing. This plate specifies the exact melt unit voltage and pump motor frequency. Pump motor voltage, frequency and current are specified on the motor data plate. For safe and proper installation, refer to the identification plate before applying electrical power to melt unit.



Block Diagram 115 VAC Single Phase:



> ⚠ **CAUTION:** To avoid possible system damage, always check wiring configuration in terminal blocks to verify the jumpers are in their correct locations.

4.3.1 Power Cord

Prewired 115 VAC SS96 Melt Units are equipped with a power cord and a standard 3-prong grounding power plug. The system becomes fully operable by plugging the power cord into a grounded outlet.

4.3.2 Switched Handgun Pump Motor Circuit

The switched pump motor circuit allows the pump motor to be switched ON and OFF using the handgun trigger. This feature increases pump motor life and turns ON the pump motor at the time of application. This remote switch is located on switched handguns and is wired into the melt unit between terminal block locations TA-9 and TA-9a.

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5 OPERATION

5.1 Controls and Indicators

Read this section carefully before attempting to operate this machine. See illustration on opposite page.

[1] System Power Switch/Circuit Breaker and Indicator

A magnetic type breaker opens the circuit at currents exceeding 15 A. The power switch illuminates when in the ON position.

[2] Pump On/Off Breaker Switch

Allows user to switch OFF pump motor during system warm up or maintenance. It is a magnetic type circuit breaker that protects the motor during overload conditions.

[3] Tank Thermometer

Indicates temperature of the material in the melt tank.

[4] Tank Heating Indicator

Illuminates amber when tank heaters are powered and assists the user when making temperature adjustments to the tank temperature controller.

[5] Tank Over temperature Indicator

Indicates tank temperatures exceeding approximately 232 °C (450 °F). In the event of a tank thermostat failure, power to the tank heaters is controlled by a back-up thermostat and light illuminates red indicating an over temperature condition. Should an over temperature condition occur, turn tank temperature control down or replace if failed. Refer to Section 7, Troubleshooting.

[6] Applicator

Not applicable to this unit.

[7] Flow Control Valve (not shown)

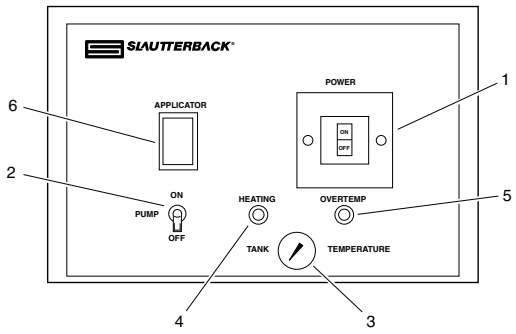
Controls the amount of adhesive available at the applicator by a pump pressure bypass valve, or flow control valve attached to the gear pump. Adjust on the right side of the melt unit. Refer to Adhesive Flow Adjustment Section 5.3.3.

[8] Tank Temperature Controller (not shown)

A full-range adjustable thermostat sets and controls tank temperature. Located on the front of the melt tank base, it is accessible at the small access panel inside the electrical enclosure. Adjustment requires a flat blade screwdriver. Refer to Tank Temperature Controller, Section 5.3.1.

[9] Hose Temperature Controller (not shown)

An adjustable thermostat controller sets and controls hose temperature. Located on the thermal panel inside the electrical enclosure, the controller is attached to a capillary bulb sensor located in the hose. Refer to Hose Temperature Controller, Section 5.3.2**.**



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5 OPERATION (CONT.)

5.2 Startup Instructions

⚠ **DANGER:** To avoid personal injury, follow all safety labels. Failure to properly operate and maintain equipment can lead to serious injury.

- Wear protective clothing, safety goggles and safety gloves. Hot melt materials can cause severe burns resulting in disfigurement or blindness.
- Use only manufacturer recommended materials in this system. Fire, explosion, personal injury, property and equipment damage can result if improper or unsafe materials are used.
- Disconnect electrical power from external source to melt unit before undertaking maintenance or troubleshooting. Failure to disconnect power can result in fatal electrical shock.
- Depressurize system before performing any maintenance to pump, pump filter, flow control valve or hose. Turn pump switch off and depress trigger on handgun until there is no flow. Air trapped in the system or in a component can form a pressure pocket. Loosen fittings cautiously. Adhesive under pressure can cause severe burns and blindness.
- Always read the manufacturer's recommended use of the material.

1. Become familiar with Section 5.1, Controls and Indicators.
2. Install melt unit as specified in Section 4, Installation.
3. Fill tank with hot melt material.
4. Turn melt unit on and allow sufficient warm up time for hot melt material to thoroughly melt.
5. Align motor on receipt of a new unit or after transportation.
    a. Loosen four screws holding motor pan to side of melt unit.
    b. Heat melt unit and run motor. This centers the motor.
    c. With motor running, tighten four screws in a crisscross pattern.
6. Set hose and tank temperatures to desired settings. Lower settings increase pot life of the material. Materials degrade over time due to oxidation.
7. To prevent motor stalling, adjust flow control valve to the minimum flow requirement.

5.3 Adjustments

5.3.1 Tank Temperature Controller

1. To prevent hot melt degradation, set melt tank temperature to the minimum temperature specified by hot melt manufacturer.
2. Open front control panel.
3. To raise melt tank temperature, turn tank temperature controller adjustment shaft [1] clockwise with screwdriver. See illustration below.
4. To lower melt tank temperature, turn adjustment shaft [1] counter-clockwise with screwdriver. The melt tank temperature controller range is 260 °C (500 °F) for one 320° rotation of the adjustment shaft.
5. Allow melt tank temperature to stabilize 30 minutes before adjusting further.
6. Verify temperature on tank thermometer.

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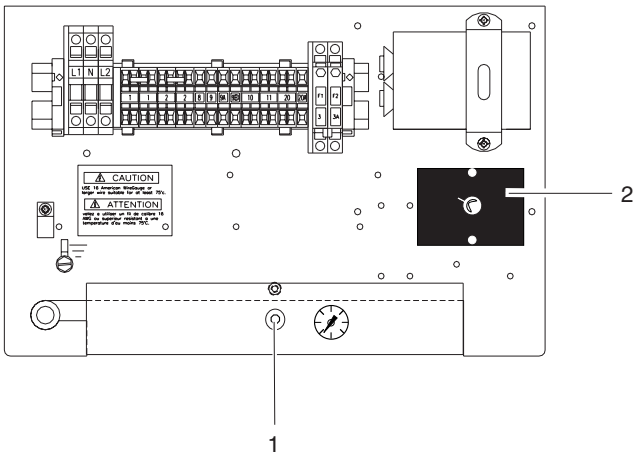
5 OPERATION (CONT.)

5.3.2 Hose Temperature Controller

Temperature graduations on hose controller reflect approximate hose temperature.

1. Measure inside hose temperature with a pyrometer and bead probe. Hose temperature should be the minimum temperature required for application to prevent degradation of material in the hose and maximize hose life.
2. Open front control panel.
3. To raise hose temperature, turn adjustment shaft [2] clockwise with screwdriver to desired temperature on dial. See illustration below.
4. To lower hose temperature, turn adjustment shaft [2] counterclockwise with screwdriver to desired temperature on dial.
5. Refer to Temperature Check in Maintenance section of the handgun manual**.**



5.3.3 Adhesive Flow Adjustment

⚠ **CAUTION:** For maximum performance and motor life, do not allow pump motor to stall. A prolonged stall condition will cause motor to go into thermal overload.

Flow Control Valve

An adjustable pressure regulating device is mounted on the pump under the melt unit chassis.

1. Adjust adhesive flow with flow control knob [1] on right side of melt unit.
2. To increase pressure and adhesive flow, turn knob [1] clockwise.
3. To decrease pressure and adhesive flow, turn knob [1] counterclockwise.
4. To achieve minimum pressure and lowest flow rate suitable for application, turn knob fully counterclockwise. Gradually turn clockwise until desired pressure and flow rate is reached.

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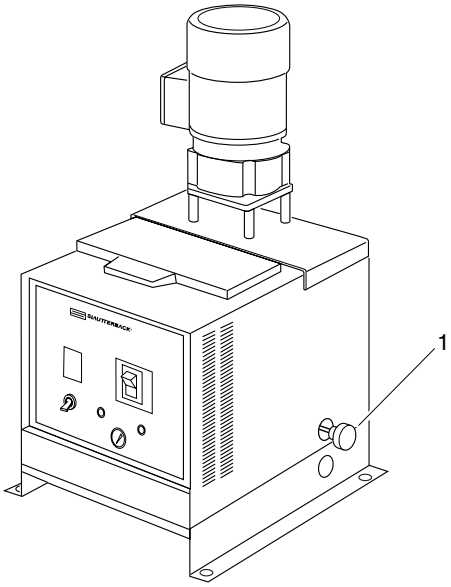
5 OPERATION (CONT.)

Flow Control Valve (Image)



6 MAINTENANCE

⚠ **WARNING:** Hot Melt materials can cause severe burns resulting in disfigurement or blindness. Follow these precautions before beginning any maintenance:

- Wear protective clothing, safety goggles, and safety gloves.
- Turn pump motor switch to off position. De-pressurize applicator(s) by triggering.
- Unless stated otherwise, always allow melt unit to cool before beginning any maintenance.
- Disconnect hose electrical connector when hose fittings are disconnected and power is off.

⚠ **CAUTION:** To prevent damage to components (hose fittings, etc.), heat part(s) being serviced to approximately 121 °C (250°F) prior to dismantling, assembling, or adjusting. Heat parts by applying power to the unit using a hand held hot air gun or placing parts on a hot plate. Failure to do this will result in stripped threads and ruining both parts and tools.

⚠ **CAUTION:** To avoid arcing of electrical contacts and possible failure of components, do not connect electrical connectors when the hose power switch is on.

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6 MAINTENANCE (CONT.)

6.1 Preventive Maintenance

6.1.1 Monthly Inspection Procedure

1. Verify hose is properly supported so it is not over stressed during use. Minimum bend radius is 20.32 cm (8 in.) when hot.
2. Check tank and hose temperatures and adjust as explained in Sections 5.3.1 and 5.3.2.

Procedure	Daily	Monthly	As Required*
Check for foreign material in tank.	X		
Wipe off excess sealant from cover.	X	X	X
Purge tank and hoses.		X	X
Clean applicator nozzle.		X	X
Check for leaks.	X		

* Extra maintenance required for continuous duty machines.

7 TROUBLESHOOTING

Problem	Solutions
Tank does not heat	1. Turn on main power breaker switch. If switch light fails to illuminate, replace switch. 2. Inspect power-in connections for proper fit. 3. Check for faulty wires. 4. Inspect power wires or power plug at main power source. 5. Check supply voltage to melt unit with voltmeter. 6. Check incoming control voltage to terminal blocks. 7. Check tank controller for proper operation. 8. Compare wire connections to electrical schematic to ensure melt unit is properly wired. 9. If problem persists, check tank heaters as specified under Section 8.6, Tank Heater Replacement. 10. Check incoming power to ensure voltage matches rating of melt unit.
Tank heats slowly	1. Check status of components with a voltmeter (system powered) or ohmmeter (system un-powered, wires disconnected). 2. Adjust tank temperature controller. 3. If problem persists, check tank heaters as specified under Section 8.6, Tank Heater Replacement.
Tank over temperature indicator light on.	1. Check tank temperature when over-temp indicator is lit. If too high, turn tank controller counterclockwise to reduce temperature. If light is on at an acceptable or low tank temperature, thermostat is faulty or rated at a low temperature. Replace over temperature thermostat.
Handgun and hose heat slowly.	1. Adjust hose and handgun temperature controllers. 2. Check voltage to hose controller. 3. Verify hose electrical connector is properly connected. If problem persists, refer to Section 8.2, Hose Controller Replacement. 4. Verify proper temperature range of hose controller.

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7 TROUBLESHOOTING (CONT.)

Problem	Solutions
Handgun and hose fail to heat.	1. Verify incoming hose power connector is properly installed. Connector wire pins may be misaligned or loose. 2. If no change, disconnect incoming hose power connector and check hose heater resistance with ohmmeter. If hose heater has failed, replace hose. Refer to Heated Hose Manual. 3. Determine if applicator is heating by using a pyrometer or temperature sensing device. Do not touch applicator by hand to determine temperature. Refer to handgun manual.
Adhesive output too high	1. Decrease system fluid pressure with flow control valve. If no change, remove nozzle and replace with a smaller orifice nozzle. 2. Decrease hose temperature by 4–10 °C (25–50 °F). If no change, consult your hot melt material vendor regarding application. 3. Decrease tank temperature by 4 °C (25 °F).
Adhesive output too low	1. Increase system fluid pressure without stalling motor by adjusting flow control valve. If no change, remove nozzle and replace with a larger orifice nozzle. 2. Clean applicator nozzle. 3. Purge system. 4. Hot melt formulations tend to be a factor in previously listed problems. Refer to Section 5.2, Startup Instructions, for cautions. 5. Increase hose temperature by 4–10 °C (25–50 °F). If no change, consult your hot melt material vendor regarding application.

If troubleshooting attempts fail, contact your factory representative.

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8 REPAIR AND REPLACEMENT

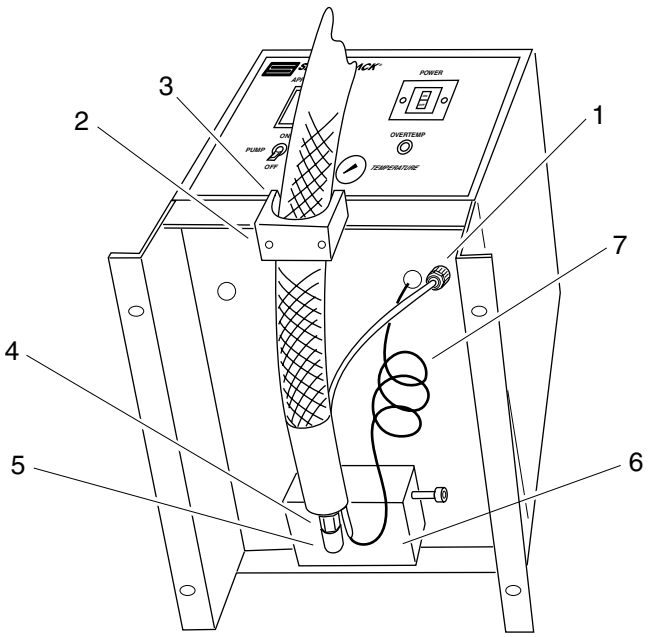
Refer to Parts List, in Section 9, for all replacement parts listed in this section.

8.1 Hose Replacement

⚠ **CAUTION:**
For safe and proper hose replacement, verify all material in the melt tank has completely solidified.

8.1.1 REMOVAL OF EXISTING HOSE

1. Turn off system power and allow hot melt in tank to completely solidify.
2. Turn system back on for 5 minutes to allow fittings to warm up or heat fitting with a hand-held hot air gun.
3. Turn off system power and disconnect melt unit electrical power.
4. Disconnect hose electrical connector [1].
5. Remove screws [2] from hose mounting block [3]. See illustration below.
6. Tilt unit backward.
7. Loosen hose JIC fitting [4] and remove hose from fitting [5] on flow control block [6].
8. Carefully remove capillary bulb [7] from hose.



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8 REPAIR AND REPLACEMENT (CONT.)

8.1.2 Installation of New Hose

1. Turn off system power and disconnect melt unit electrical power from external source.
2. Never flex a hose when cold. Hoses have a minimum bend radius of 20.32 cm (8 in.) when hot. Further flexing will cause permanent damage.
3. Heat hose JIC fittings [5] before adjusting or damage may result. New or clean hose fittings may not require heating.
4. Install hoses on melt unit by tilting melt unit back until underside is accessible. Support unit with block on back of housing so hot melt does not spill. Do not turn melt unit upside down.
5. Support hose to prevent excessive flexing. Do not support hose in a way which may add to its thermal insulating characteristics or overheating will result. Failure to properly support the hose will result in premature failure.
6. Hose installation. See illustration below.

   a. Carefully insert capillary bulb [4] into brass tube in end of hose [1] and do not bend capillary tube at a sharp angle. Thermostat hoses perform best when capillary bulb is positioned at 3 or 9 o'clock. Before final tightening, rotate hose on JIC fitting to obtain recommended position.

   b. Loosely connect the hose JIC swivel fitting [5] to a straight or right angle fitting [6] on the flow control block [7].

   c. Fasten hose support block [3] to chassis.

   d. Attach hose electrical connector [2].

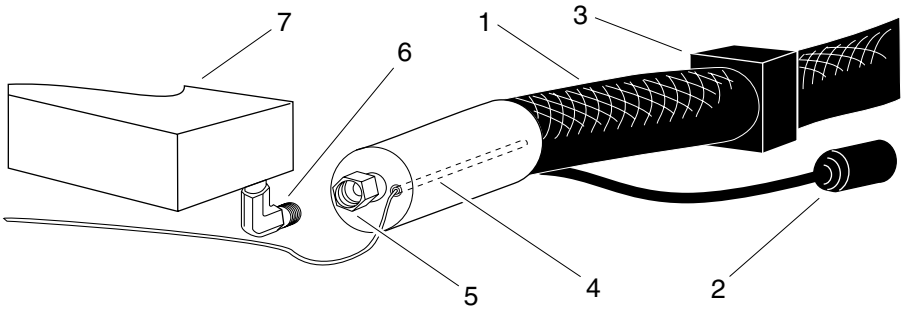
   e. Tuck capillary tubing [4] and electrical connector [2] under melt unit.

   f. Position and support hose before using.

   g. Tighten JIC swivel fittings [5].

   h. Check all hydraulic fittings for tightness before pressurizing system and re-tighten when hot. Check all electrical connections for continuity.

   i. Re-tighten hydraulic fitting after unit has reached operating temperature.



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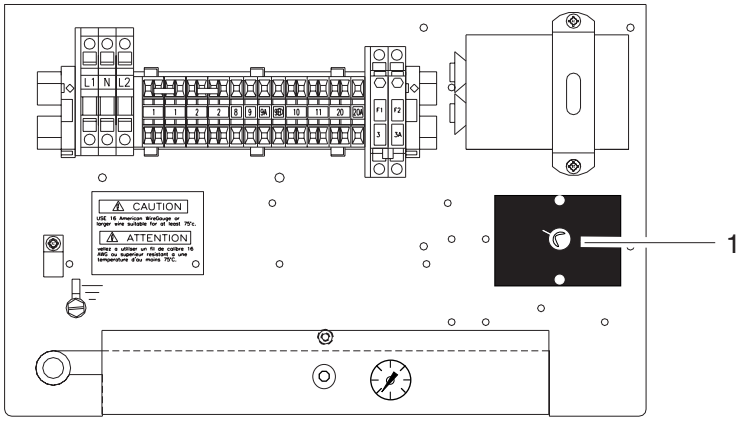
8 REPAIR AND REPLACEMENT (CONT.)

8.2 Hose Controller Replacement

1. Turn system power OFF and allow sealant in tank to completely solidify.
2. Turn melt unit on for 5 minutes to warm fittings or heat fittings with a hand-held hot air gun.
3. Turn system power switch OFF and disconnect melt unit electrical power.
4. Remove screws from hose mounting block.
5. Tilt unit backward and disconnect hose electrical connector. Do not turn melt unit upside down.
6. Loosen hose JIC fitting.
7. Remove hose from fitting on flow control block.
8. Remove capillary sensor from hose.
9. Open front control panel, disconnect controller [1] wires and identify locations of wires.
10. Remove 2 screws fastening controller [1] to electrical mounting panel.
11. Install new controller. Insert capillary sensor into brass tube at hose end and coil capillary tube so it hangs beneath chassis.
12. Reconnect hose electrical connector.
13. Attach hose to JIC fitting as specified in illustration below.
14. Reconnect controller wires.
15. Reconnect melt unit power.
16. Turn system power switch ON.
17. Adjust controller as specified in Section 5.3.2, Hose Temperature Controller.
18. Calibrate actual inside temperature with thermostat setting using pyrometer and bead sensor.



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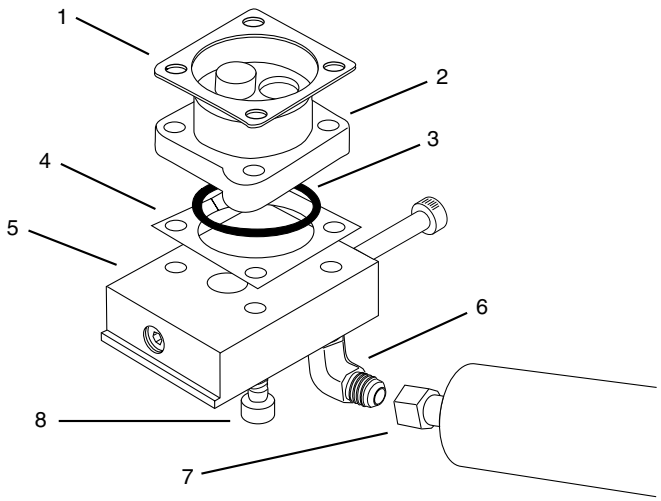
8 REPAIR AND REPLACEMENT (CONT.)

8.3 Pump and Flow Control Replacement

1. If possible, pump out all adhesive in melt unit and turn system power off. If not possible, turn off system power and allow hot melt in tank to solidify.
2. Turn on system power for 5 minutes to warm fittings.
3. Turn off system power and disconnect electrical power at external source.
4. Disconnect hose electrical connector and tilt melt unit backwards. Do not turn melt unit upside down.
5. Loosen JIC fittings [7] and remove hose from fittings [6] on flow control block [5]. See illustration below.
6. Remove 4 socket head cap screws [8] attaching flow control block [5] and pump [2] to tank. See illustration below.
7. Pull pump [2] out and remove o-ring [3], copper shim [4] and tank gasket [1]. Install new replacement seals.
8. Place o-ring [3] in pump groove after lubricating with silicon based grease.
9. Align pump [2], pump shim [4] and flow control block [5], with o-ring in place. Verify mating surfaces of pump and flow control valve block lie flat against one another.
10. Attach flow control block [5] and pump[2], with pump gasket seated to bottom of tank using hex head cap screws and lock washers [8].
11. Before tightening screws, check o-ring groove alignment by manually pressing flow control block [5] against pump [2].
12. Tighten all screws evenly. Torque to 8.47 N-m (75 lb-in.).

⚠ **CAUTION:**
Verify o-ring is properly aligned in pump groove when replacing pump and/or flow control valve. A pinched or misaligned o-ring may result in pump leakage.

13. Reconnect hose(s) and turn melt unit power on.



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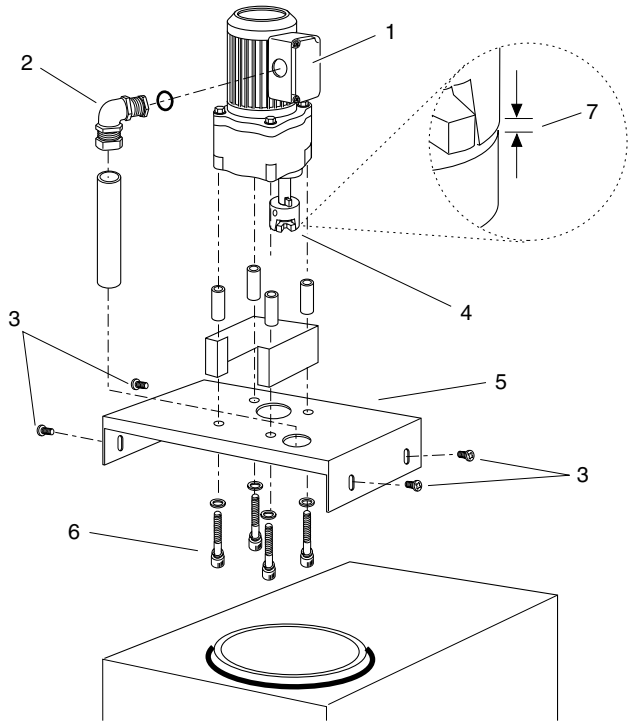
8 REPAIR AND REPLACEMENT (CONT.)

8.4 Pump Motor Replacement

1. Disconnect electrical power and allow melt unit to cool to 121 °C (250 °F).
2. Open motor junction box cover [1], disconnect wiring and liquidate fitting [2]. See illustration below.
3. Remove screws [3] holding motor mounting plate to melt unit.
4. Lift motor mount assembly off melt unit. Ensure pump shaft remains connected to pump in tank.
5. Remove screws [6] holding pump motor to motor mounting plate [5].
6. Install new pump motor on motor mounting plate.
7. Check pump shaft alignment on pump in tank.
8. Align motor coupling [4] with pump shaft in tank and lower onto shaft.
9. Align motor mounting plate to melt unit with mounting screws [3].
10. Verify pump shaft seats properly with pump and verify sufficient coupler clearance [7] exists 0.8 mm ± 0.3 mm (0.030 in. ±0.010 in.). See illustration below.
11. Replace liquidate fitting and wires.
12. Reconnect wires according to electrical schematic. Refer to melt unit identification plate to determine exact voltage.
13. Turn melt unit on allow melt unit to heat up to normal operating temperature, turn pump motor on.
14. Tighten screws [3] in a crisscross pattern while motor is operating to align pump shaft.



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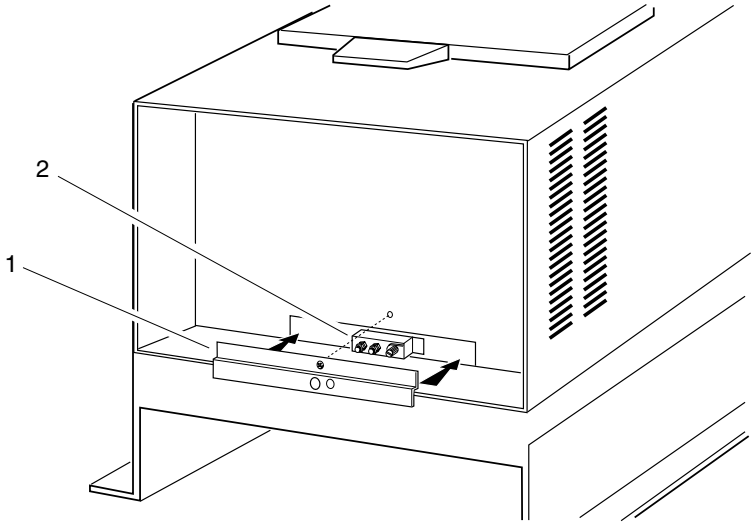
8 REPAIR AND REPLACEMENT (CONT.)

8.5 Tank Temperature Controller Replacement

1. Switch system power off and disconnect melt unit electrical power from external source.
2. Open front control panel.
3. Remove tank access panel [1]. See illustration below.
4. Remove wires connected to tank temperature controller [2].
5. Remove temperature controller [2] by unscrewing 2 screws holding tank controller to tank base.
6. Attach new temperature controller [2] to tank base using 2 screws and reconnect wires.
7. Replace tank access panel [1].

⚠ **WARNING:**
Failure to replace access panel will result in an electrical hazard and possible heat damage to electrical components.

8. Close front control panel.



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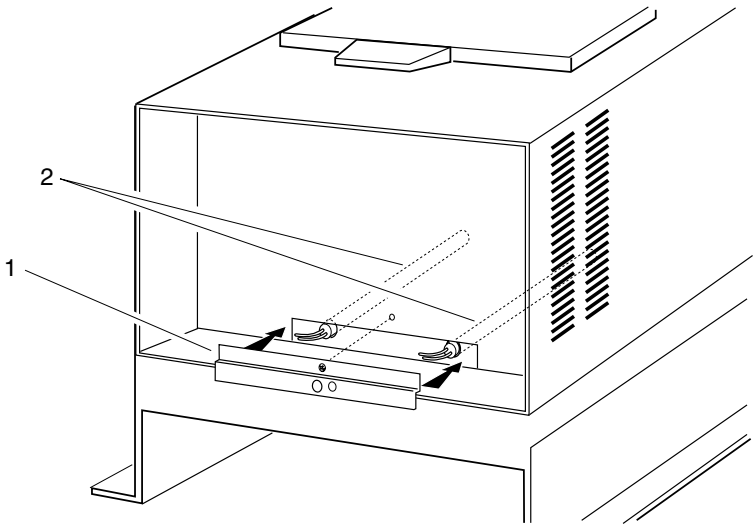
8 REPAIR AND REPLACEMENT (CONT.)

8.6 Tank Heater Replacement

1. Before considering replacement, check heaters with amp probe (system power on) or ohmmeter (system power off, wires disconnected). Determine resistance of each individual heater. Refer to electrical schematic.
2. Switch system power off and disconnect electrical power from external source.
3. Open control panel and remove tank access panel [1]. See illustration below.
4. Determine resistance of each individual heater [2].
5. Disconnect wires on defective heater.
6. Pull heater out of bore using pliers. If heater does not come out easily, drive out using a 6.35 mm (0.25 in.) diameter rod inserted in knockout holes in back of tank base.
7. Apply a coating of heat release and transfer agent to new heater and slide it into tank heater bore from the front.
8. Route heater lead wires through electrical panel and reconnect heater wires in original locations. Refer to electrical schematic included with melt unit.
9. Replace tank access panel [1].
10. Close and fasten control panel.

⚠ **WARNING:**
The over temperature thermostat is a necessary safety device for preventing runaway heating on all melt units. Under no circumstances bypass this protection. Runaway heating of tank can cause hot melt materials to burst into flames.



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9 PARTS LIST

9.1 SS96 Assembly Drawing

Item	Description (Quantity)	Part Number
1	Flow control valve assembly	73169-01
2	Kit, over temperature thermostat 232 °C (450 °F)	79126-450
3	Pump assembly, group	79048-3
4	Motor group	73714-24
5	Kit, thermometer	79014
6	Switch, circuit breaker, 115 VAC	12015-1
7	Indicator light, red	12030-1
8	Indicator light, amber	12030-10
9	Blank, switch cover	12011-3
10	Kit, tank controller	79006
11	Seal, pump shaft	70006-1
12	Seal, tank	70020
13	Capacitor, 10 µf, 370 VAC	18416-1
14	Lid, pan	70007
15	Shaft, pump	73167-2
16	Lid assembly	73341-1
17	Gun hanger	70117
18	Kit, tank heater 115 VAC	79005
19	Deflector	70213
20	Chain drive assembly	73164
21	Kit, idler gear	79094
22	Handle	14517-2
23	Scraper, chain	70213-2
24	Kit, pump warmup thermostat	79068-350
25	Cable, 16 AWG, 3 cond. 20.32 cm (8 in.) with plug, 115 VAC only (not illustrated)	12012

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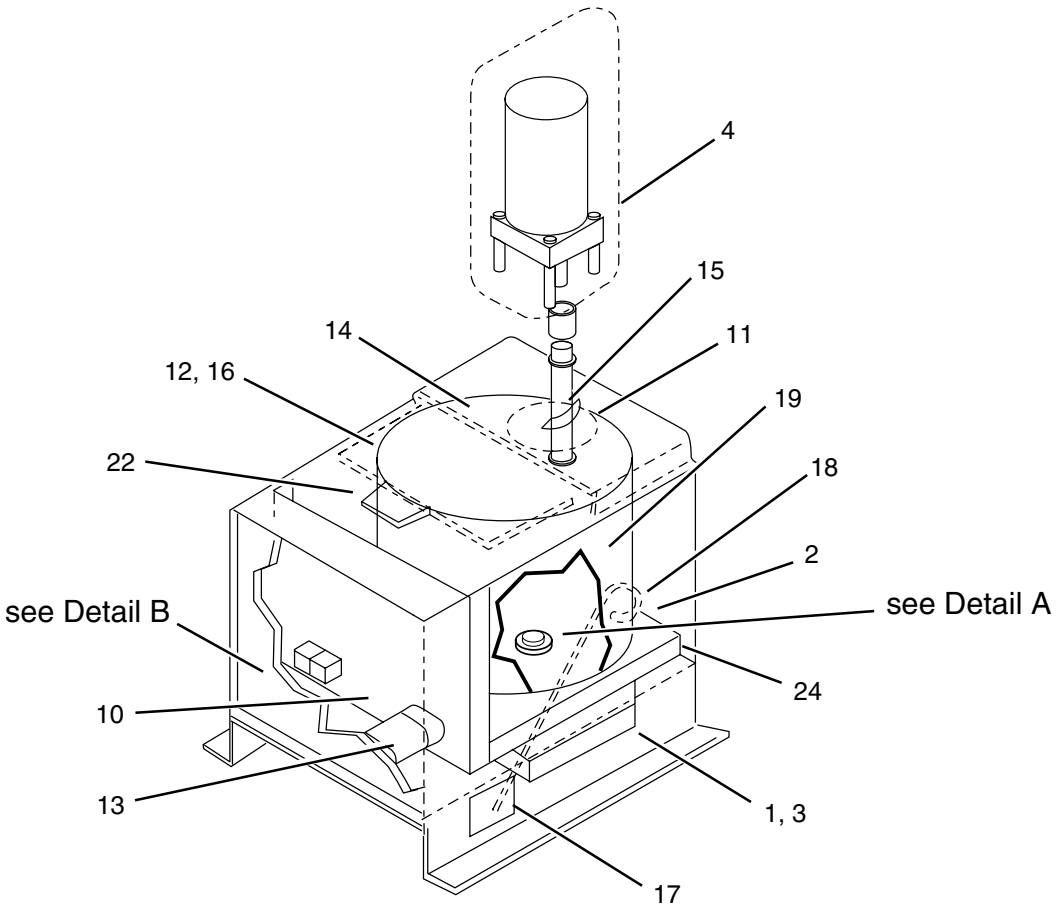
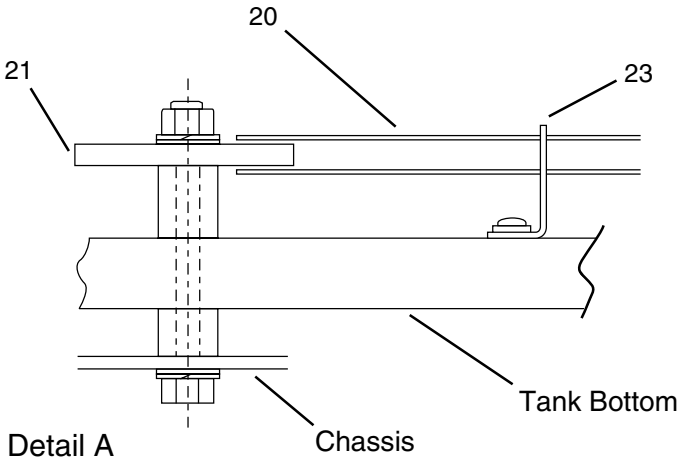
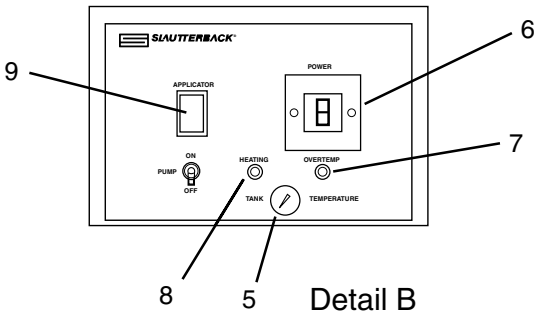
9 PARTS LIST (CONT.)

9.1 SS96 Assembly Drawing







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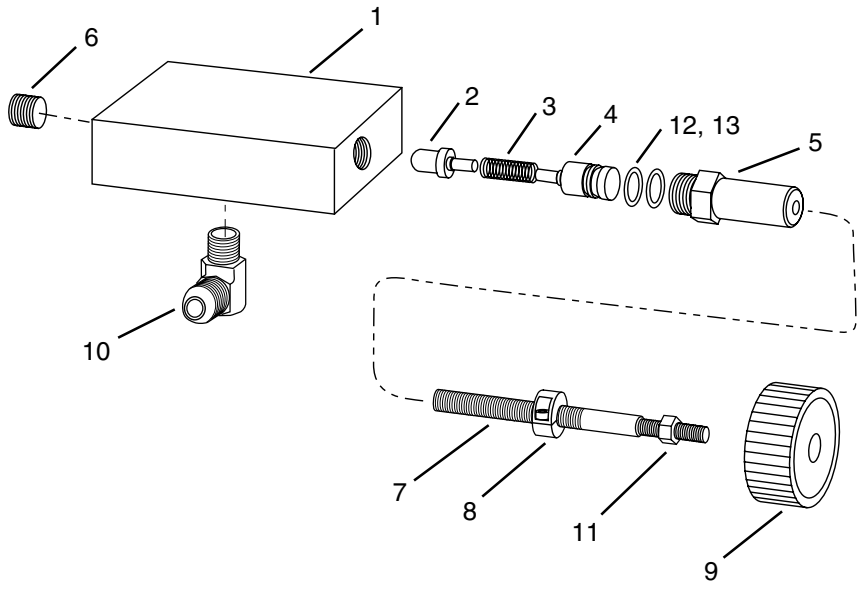
9 PARTS LIST

9.2 Flow Control Valve Assembly

Item	Description (Quantity)	Part Number
	Flow control valve assembly	73169-01
1	Block, flow control valve	70123-8
2	Guide seat, flow control valve	70038-2
3	Spring, flow control valve	14490-5
4	Piston, flow control valve	70037-4
5	Bonnet, flow control valve	18508-1
6	Plug, 1/4 NPT (2)	11603-4A
7	Shaft, adjust. flow control valve	70038-3
8	Collar, Threaded, Locking, 5/16-24	14445-01
9	Knob, 1-7/8", Black Plastic, 1/4-20	14517-13
10	Fitting, 90°, 1/4 NPT to No. 8 JIC	11409-84A
11	Nut, hex, 1/4-20 UNC	14441-GA
12	O-ring, flow control valve piston (2)	10412
13	High Temp Lube, Clear, 5.3 oz	11208
	Tape, Teflon Sealant; 1/2" X .0035"	15015-2



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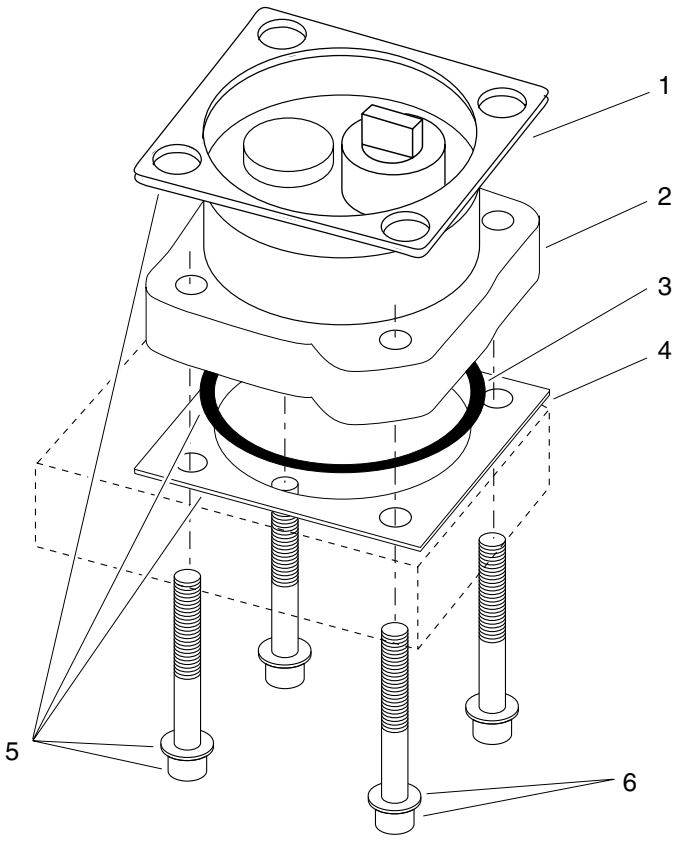
9 PARTS LIST

9.3 V1 Pump Assembly

Item	Description (Quantity)	Part Number
1	Gasket, V1 pump	70118
2	Pump, V1-675	79048-3
3	O-ring, pump	10438
4	Shim, pump	70032
5	Kit, seal pump, V1 (includes hardware)	79081
6	Kit, hardware pump, V1	79042



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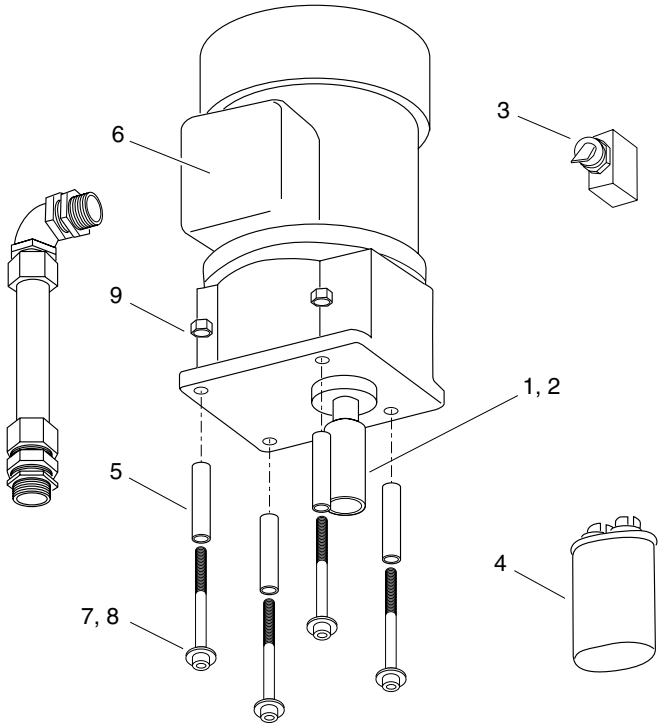
9 PARTS LIST (CONT.)

9.4 Motor Assembly

Item	Description (Quantity)	Part Number
*	Motor group, 38 rpm, 115 VAC, 60/50 Hz	73714-24
1	Coupling, 15.88 mm (0.625 in.) shaft x 5.08 cm (2 in.)	70460-4
2	Key, 4.76 mm (0.1875 in.) square x 5.08 cm (2 in.) Lg.	14475-7
3	Breaker, 2.9 Amp Fast Trip	12055A-29
4	Capacitor, 10 µf 370 VAC	18416-1
5	Spacer, 4 ID x 0.44 OD x 44.45 mm (1.75 in.) (4)	14471-4
6	Wire nuts	12277-2
7	Screw, Shc; 1/4-20 X 3 Lg (4)	14431-GDT
8	Washer, split lock, 6.35 mm (0.25 in.) (4)	14451-GA
9	Nut, 1/4-20 hex (4)	14441-GA

*** NOTE:** does not include pump On/Off switch/circuit breaker or capacitor.



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9 PARTS LIST (CONT.)

9.5 L2 Handgun Nozzles

Item	Description (Quantity)	Part Number
	L2 Nozzle, 3/16" spacing	70218-3
	L2 Nozzle, 1/4" spacing	70218-4
	L2 Nozzle, 5/16" spacing	70218-5
	L2 Nozzle, 3/8" spacing	70218-6
	L2 Nozzle, 7/16" spacing	70218-7
	L2 Nozzle, 1/2" spacing	70218-8
	L2 Nozzle, 9/16" spacing	70218-9
	L2 Nozzle, 5/8" spacing	70218-10
	L2 Nozzle, 11/16" spacing	70218-11
	L2 Nozzle, 3/4" spacing	70218-12
	L2 Nozzle, Extended General Purpose, 1 orifice	70234-1

*** NOTE:** The L2 nozzle spacing dimension equals the space between the two panes of glass in a finished insulated window.

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9 PARTS LIST (CONT.)

9.6 Recommended Spares

Item	Description (Quantity)	Part Number
	Heaters	
	Kit, tank heater, 115 VAC, 400 W	79005
	Standard Melt Unit Switches	
	Kit, tank controller, 38–232 °C (100–450 °F)	79006
	Kit, hose controller, 177–232 °C (350–450 °F)	79125-4
	Kit, tank overtemperature thermostat, 232 °C (450 °F)	79126-450
	Circuit breaker, 115 VAC, 15 A	12015-1
	Pump motor ON/OFF switch, 115 VAC, 2 A	12055-2
	Pump warmup thermostat 121 °C (250 °F)	79056-1
	Kit, tank thermometer	79014
	Pump	
	Kit, pump, V1-675	79048-3
	Kit, hardware pump, V1	79042
	Kit, pump seal, V1 (includes hardware)	79081
	Motor	
	Motor group, 38/31 rpm, 115 VAC, 60/50 Hz	73714-24
	Capacitor, 10 µf, 370 VAC	18416-1
	Coupler, pump shaft-motor	70460-4
	Key, machine 4.76 mm (0.1875 in.) square x 5.08 cm (2 in.) long	14475-7
	Pump shaft assembly	73167-2
	Kit, idler gear, SS96	79094
	Chain assembly, SS96	73164
	Wire nuts, medium low temperature	12277-2
	L2 Standard Handgun/Hose Assemblies - Capillary Control	
	L2 Handgun/hose, 2.44 m (8 ft), 232 °C (450 °F), 115 VAC	75086-000
	L2 Handgun/hose, 2.44 m (8 ft), 232 °C (450 °F) 115 VAC	75086-200

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9 PARTS LIST (CONT.)

9.6 Recommended Spares (CONT.)

Item	Description (Quantity)	Part Number
	Heated Supply Hoses	
	Hose, L2, capillary, 2.44 m (8 ft), 232 °C (450 °F), 115 VAC	26269 08-N
	Hose, L2, capillary, 3.66 m (12 ft), 232 °C (450 °F), 115 VAC	26269-12-N
	L2 standard handgun spare, 115 VAC	75085-000
	Kit, L2 heater, 115 VAC	79075-1
	Kit, microswitch for L2 handgun	79095
	L2 standard handgun spare, 115 VAC	75085-000
	Constant tension balancer, 1–4 lb	11030
	Constant tension balancer, 2–5 lb	11031
	Hose hammock	30087
	Swivel subassembly	73161
	Needle packing washer	16528-18
	Teflon needle seal	16528-17
	Fiber washers	16528-25
	Teflon seat plate	16528-22
	Screw, seat plate	16528-23