Bulk Melters
AltaPail II™

Manual P/N 1121836_03
English

Edition 11\14

NORDSON CORPORATION • DULUTH, GEORGIA • USA
www.nordson.com

Order number

P/N = Order number for Nordson products

Notice

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Section 1
Safety

Read this section before using the equipment. This section contains recommendations and practices applicable to the safe installation, operation, and maintenance (hereafter referred to as “use”) of the product described in this document (hereafter referred to as “equipment”). Additional safety information, in the form of task-specific safety alert messages, appears as appropriate throughout this document.

WARNING! Failure to follow the safety messages, recommendations, and hazard avoidance procedures provided in this document can result in personal injury, including death, or damage to equipment or property.

Safety Alert Symbols

The following safety alert symbol and signal words are used throughout this document to alert the reader to personal safety hazards or to identify conditions that may result in damage to equipment or property. Comply with all safety information that follows the signal word.

WARNING! Indicates a potentially hazardous situation that, if not avoided, can result in serious personal injury, including death.

CAUTION! Indicates a potentially hazardous situation that, if not avoided, can result in minor or moderate personal injury.

CAUTION! (Used without the safety alert symbol) Indicates a potentially hazardous situation that, if not avoided, can result in damage to equipment or property.

Responsibilities of the Equipment Owner

Equipment owners are responsible for managing safety information, ensuring that all instructions and regulatory requirements for use of the equipment are met, and for qualifying all potential users.

Safety Information

- Research and evaluate safety information from all applicable sources, including the owner-specific safety policy, best industry practices, governing regulations, material manufacturer's product information, and this document.
- Make safety information available to equipment users in accordance with governing regulations. Contact the authority having jurisdiction for information.
- Maintain safety information, including the safety labels affixed to the equipment, in readable condition.

Instructions, Requirements, and Standards

- Ensure that the equipment is used in accordance with the information provided in this document, governing codes and regulations, and best industry practices.
- If applicable, receive approval from your facility's engineering or safety department, or other similar function within your organization, before installing or operating the equipment for the first time.
- Provide appropriate emergency and first aid equipment.
- Conduct safety inspections to ensure required practices are being followed.
- Re-evaluate safety practices and procedures whenever changes are made to the process or equipment.

User Qualifications

Equipment owners are responsible for ensuring that users:

- receive safety training appropriate to their job function as directed by governing regulations and best industry practices
- are familiar with the equipment owner's safety and accident prevention policies and procedures
- receive equipment- and task-specific training from another qualified individual

  NOTE: Nordson can provide equipment-specific installation, operation, and maintenance training. Contact your Nordson representative for information

- possess industry- and trade-specific skills and a level of experience appropriate to their job function
- are physically capable of performing their job function and are not under the influence of any substance that degrades their mental capacity or physical capabilities

Applicable Industry Safety Practices

The following safety practices apply to the use of the equipment in the manner described in this document. The information provided here is not meant to include all possible safety practices, but represents the best safety practices for equipment of similar hazard potential used in similar industries.

Intended Use of the Equipment

- Use the equipment only for the purposes described and within the limits specified in this document.
- Do not modify the equipment.
- Do not use incompatible materials or unapproved auxiliary devices. Contact your Nordson representative if you have any questions on material compatibility or the use of non-standard auxiliary devices.

Instructions and Safety Messages

- Read and follow the instructions provided in this document and other referenced documents.
- Familiarize yourself with the location and meaning of the safety warning labels and tags affixed to the equipment. Refer to *Safety Labels and Tags* at the end of this section.
- If you are unsure of how to use the equipment, contact your Nordson representative for assistance.

Installation Practices

- Install the equipment in accordance with the instructions provided in this document and in the documentation provided with auxiliary devices.
- Ensure that the equipment is rated for the environment in which it will be used. This equipment has not been certified for compliance with the ATEX directive nor as nonincendive and should not be installed in potentially explosive environments.
- Ensure that the processing characteristics of the material will not create a hazardous environment. Refer to the Material Safety Data Sheet (MSDS) for the material.
- If the required installation configuration does not match the installation instructions, contact your Nordson representative for assistance.
- Position the equipment for safe operation. Observe the requirements for clearance between the equipment and other objects.
- Install lockable power disconnects to isolate the equipment and all independently powered auxiliary devices from their power sources.
- Properly ground all equipment. Contact your local building code enforcement agency for specific requirements.
- Ensure that fuses of the correct type and rating are installed in fused equipment.
- Contact the authority having jurisdiction to determine the requirement for installation permits or inspections.

Operating Practices

- Familiarize yourself with the location and operation of all safety devices and indicators.
- Confirm that the equipment, including all safety devices (guards, interlocks, etc.), is in good working order and that the required environmental conditions exist.
- Use the personal protective equipment (PPE) specified for each task. Refer to *Equipment Safety Information* or the material manufacturer's instructions and MSDS for PPE requirements.
- Do not use equipment that is malfunctioning or shows signs of a potential malfunction.

Maintenance and Repair Practices

- Allow only personnel with appropriate training and experience to operate or service the equipment.
- Perform scheduled maintenance activities at the intervals described in this document.
- Relieve system hydraulic and pneumatic pressure before servicing the equipment.
- De-energize the equipment and all auxiliary devices before servicing the equipment.
- Use only new Nordson-authorized refurbished or replacement parts.
- Read and comply with the manufacturer's instructions and the MSDS supplied with equipment cleaning compounds.

  NOTE: MSDSs for cleaning compounds that are sold by Nordson are available at www.nordson.com or by calling your Nordson representative.
- Confirm the correct operation of all safety devices before placing the equipment back into operation.
- Dispose of waste cleaning compounds and residual process materials according to governing regulations. Refer to the applicable MSDS or contact the authority having jurisdiction for information.
- Keep equipment safety warning labels clean. Replace worn or damaged labels.

Equipment Safety Information

This equipment safety information is applicable to the following types of Nordson equipment:

- hot melt and cold adhesive application equipment and all related accessories
- pattern controllers, timers, detection and verification systems, and all other optional process control devices

Equipment Shutdown

To safely complete many of the procedures described in this document, the equipment must first be shut down. The level of shut down required varies by the type of equipment in use and the procedure being completed. If required, shut down instructions are specified at the start of the procedure. The levels of shut down are:

Relieving System Hydraulic Pressure

Completely relieve system hydraulic pressure before breaking any hydraulic connection or seal. Refer to the melter-specific product manual for instructions on relieving system hydraulic pressure.

De-energizing the System

Isolate the system (melter, hoses, applicators, and optional devices) from all power sources before accessing any unprotected high-voltage wiring or connection point.

1. Turn off the equipment and all auxiliary devices connected to the equipment (system).
2. To prevent the equipment from being accidentally energized, lock and tag the disconnect switch(es) or circuit breaker(s) that provide input electrical power to the equipment and optional devices.

   NOTE: Government regulations and industry standards dictate specific requirements for the isolation of hazardous energy sources. Refer to the appropriate regulation or standard.

Disabling the Applicators

NOTE: Adhesive dispensing applicators are referred to as “guns” in some previous publications.

All electrical or mechanical devices that provide an activation signal to the applicators, applicator solenoid valve(s), or the melter pump must be disabled before work can be performed on or around an applicator that is connected to a pressurized system.

1. Turn off or disconnect the applicator triggering device (pattern controller, timer, PLC, etc.).
2. Disconnect the input signal wiring to the applicator solenoid valve(s).
3. Reduce the air pressure to the applicator solenoid valve(s) to zero; then relieve the residual air pressure between the regulator and the applicator.

General Safety Warnings and Cautions

Table 1-1 contains the general safety warnings and cautions that apply to Nordson hot melt and cold adhesive equipment. Review the table and carefully read all of the warnings or cautions that apply to the type of equipment described in this manual.

Equipment types are designated in Table 1-1 as follows:

HM = Hot melt (melters, hoses, applicators, etc.)

PC = Process control

CA = Cold adhesive (dispensing pumps, pressurized container, and applicators)

Table 1-1 General Safety Warnings and Cautions

Equipment Type	Warning or Caution
HM	 **WARNING!** Hazardous vapors! Before processing any polyurethane reactive (PUR) hot melt or solvent-based material through a compatible Nordson melter, read and comply with the material's MSDS. Ensure that the material's processing temperature and flashpoints will not be exceeded and that all requirements for safe handling, ventilation, first aid, and personal protective equipment are met. Failure to comply with MSDS requirements can cause personal injury, including death.
HM	 **WARNING!** Reactive material! Never clean any aluminum component or flush Nordson equipment with halogenated hydrocarbon fluids. Nordson melters and applicators contain aluminum components that may react violently with halogenated hydrocarbons. The use of halogenated hydrocarbon compounds in Nordson equipment can cause personal injury, including death.
HM, CA	 **WARNING!** System pressurized! Relieve system hydraulic pressure before breaking any hydraulic connection or seal. Failure to relieve the system hydraulic pressure can result in the uncontrolled release of hot melt or cold adhesive, causing personal injury.

Continued...

General Safety Warnings and Cautions (contd.)

Table 1-1 General Safety Warnings and Cautions *(contd)*

Equipment Type	Warning or Caution
HM	**WARNING!** Molten material! Wear eye or face protection, clothing that protects exposed skin, and heat-protective gloves when servicing equipment that contains molten hot melt. Even when solidified, hot melt can still cause burns. Failure to wear appropriate personal protective equipment can result in personal injury.
HM, PC	**WARNING!** Equipment starts automatically! Remote triggering devices are used to control automatic hot melt applicators. Before working on or near an operating applicator, disable the applicator's triggering device and remove the air supply to the applicator's solenoid valve(s). Failure to disable the applicator's triggering device and remove the supply of air to the solenoid valve(s) can result in personal injury.
HM, CA, PC	**WARNING!** Risk of electrocution! Even when switched off and electrically isolated at the disconnect switch or circuit breaker, the equipment may still be connected to energized auxiliary devices. De-energize and electrically isolate all auxiliary devices before servicing the equipment. Failure to properly isolate electrical power to auxiliary equipment before servicing the equipment can result in personal injury, including death.
HM, CA, PC	**WARNING!** Risk of fire or explosion! Nordson adhesive equipment is not rated for use in explosive environments and has not been cerfified for the ATEX directive or as nonincendive. In addition, this equipment should not be used with solvent-based adhesives that can create an explosive atmosphere when processed. Refer to the MSDS for the adhesive to determine its processing characteristics and limitations. The use of incompatible solvent-based adhesives or the improper processing of solvent-based adhesives can result in personal injury, including death.

Continued...

Table 1-1 General Safety Warnings and Cautions *(contd)*

Equipment Type	Warning or Caution
HM, CA, PC	**WARNING!** Allow only personnel with appropriate training and experience to operate or service the equipment. The use of untrained or inexperienced personnel to operate or service the equipment can result in injury, including death, to themselves and others and can damage to the equipment.
HM	**CAUTION!** Hot surfaces! Avoid contact with the hot metal surfaces of applicators, hoses, and certain components of the melter. If contact can not be avoided, wear heat-protective gloves and clothing when working around heated equipment. Failure to avoid contact with hot metal surfaces can result in personal injury.
HM	**CAUTION!** Some Nordson melters are specifically designed to process polyurethane reactive (PUR) hot melt. Attempting to process PUR in equipment not specifically designed for this purpose can damage the equipment and cause premature reaction of the hot melt. If you are unsure of the equipment's ability to process PUR, contact your Nordson representative for assistance.
HM, CA	**CAUTION!** Before using any cleaning or flushing compound on or in the equipment, read and comply with the manufacturer's instructions and the MSDS supplied with the compound. Some cleaning compounds can react unpredictably with hot melt or cold adhesive, resulting in damage to the equipment.
HM	**CAUTION!** Nordson hot melt equipment is factory tested with Nordson Type R fluid that contains polyester adipate plasticizer. Certain hot melt materials can react with Type R fluid and form a solid gum that can clog the equipment. Before using the equipment, confirm that the hot melt is compatible with Type R fluid.

Other Safety Precautions

- Do not use an open flame to heat hot melt system components.
- Check high pressure hoses daily for signs of excessive wear, damage, or leaks.
- Never point a dispensing handgun at yourself or others.
- Suspend dispensing handguns by their proper suspension point.

First Aid

If molten hot melt comes in contact with your skin:

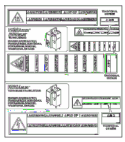
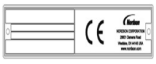
1. Do NOT attempt to remove the molten hot melt from your skin.
2. Immediately soak the affected area in clean, cold water until the hot melt has cooled.
3. Do NOT attempt to remove the solidified hot melt from your skin.
4. In case of severe burns, treat for shock.
5. Seek expert medical attention immediately. Give the MSDS for the hot melt to the medical personnel providing treatment.

Safety Labels and Tags

Figure 1-1 illustrates the location of the safety labels and warning tags affixed to the equipment. Table -2 provides an illustration of the hazard identification symbols that appear on the safety labels and tags, the meaning of the symbols and the exact wording of the safety message.

Figure 1-1 Safety Labels and Tags

Table 1-2 Safety Labels and Tags

Position	P/N	Description	
1	290083		**WARNING:** Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.
2	290082		**WARNING:** Hot surface. Failure to observe can cause burns.
3	421460		**WARNING:** Risk of pinching parts of the body between platen and container. Ensure that, during operation, no one else is near the system.
4, and 5	1059866		TAGS, SHEET OF, VERSA/DURABLUE LG, CE LANG
6	10000291		TAG,UNIT STAMPING,ALTAPAIL II
7	7140255		SIGN "MAX. 8 BAR" SELF ADHESIVE

NOTE: All the safety labels and tags can't be wiped by organic solvents(alcohol, acetone,etc.)

Section 2
Introduction

Intended Use

Bulk melters of the series *AltaPail II* - hereafter also referred to as *melter* - may only be used to melt and feed suitable materials. When in doubt, seek permission from Nordson.

Any other use is considered to be unintended. Nordson will not be liable for personal injury or property damage resulting from unintended use.

Intended use includes the observance of Nordson safety instructions. Nordson recommends obtaining detailed information on the materials to be used.

Unintended Use - Examples -

The bulk melters may not be used under the following conditions:

- In defective condition
- With electrical cabinet door open
- In a potentially explosive atmosphere
- With unsuitable operating/processing materials
- When the values stated under *Technical Data* are not complied with.

The systems may not be used to process the following materials:

- Explosive and flammable materials
- Erosive and corrosive materials
- Food products.

Do not use the platen

- As a press
- To lift loads
- To heat objects.

Area of Use

The bulk melter is designed for use in industrial areas.

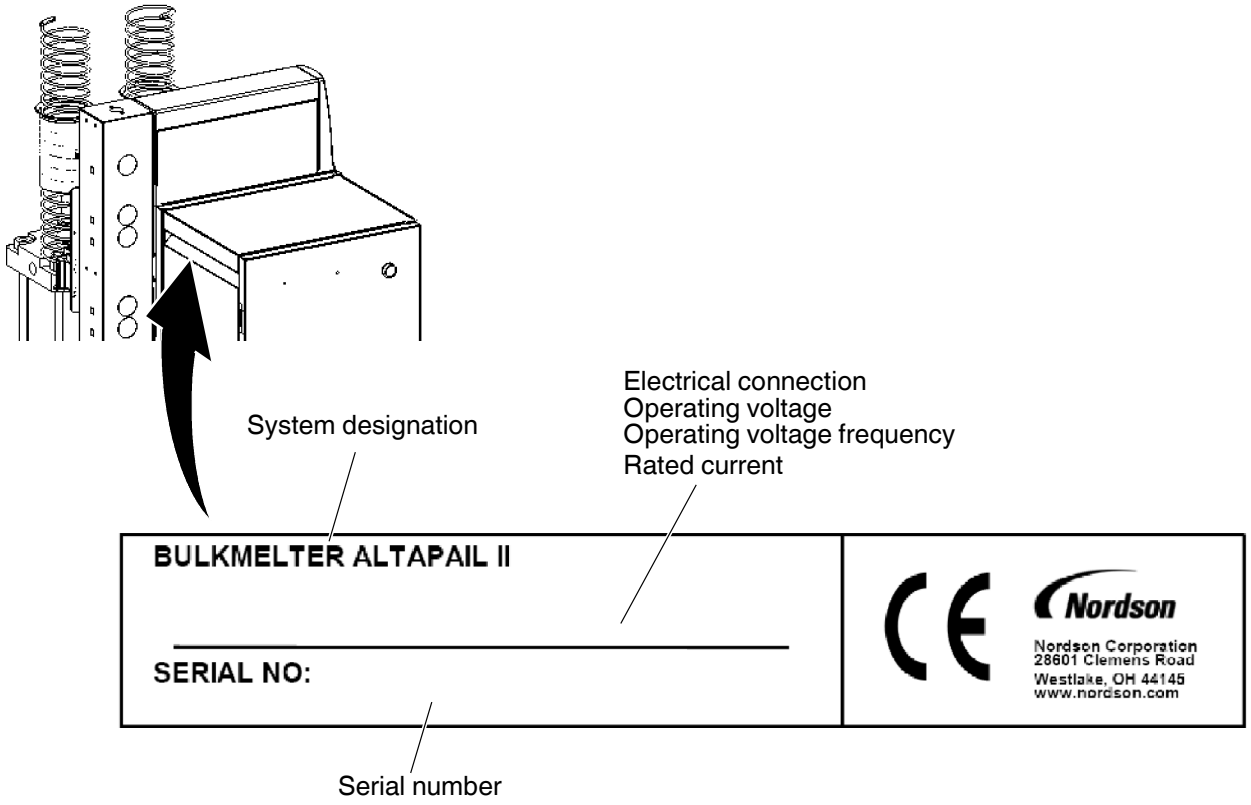
When using in industrial areas and in small businesses, the system may cause interference in other electrical units, e.g. radios.

Residual Risks

In the design of the melter, every measure was taken to protect personnel from potential danger. However, some residual risks can not be avoided. Personnel should be aware of the following:

- Risk of burns from hot material
- Risk of burns from hot bulk melter components
- Risk of burns when conducting maintenance and repair work for which the system must be heated up
- Risk of burns when attaching and removing heated hoses
- Material fumes can be hazardous. Avoid inhalation. If necessary, exhaust material vapors and/or provide sufficient ventilation of the location of the bulk melter (Refer to page 3-3, *Exhausting Material Vapors*)
- Risk of pinching parts of the body between platen and container. Ensure that, during operation, no one else is near the system
- The safety valve may malfunction due to hardened or charred material.

ID Plate



Description of the Bulk Melter

AltaPail bulk melters are designed to accommodate 20 liter containers.

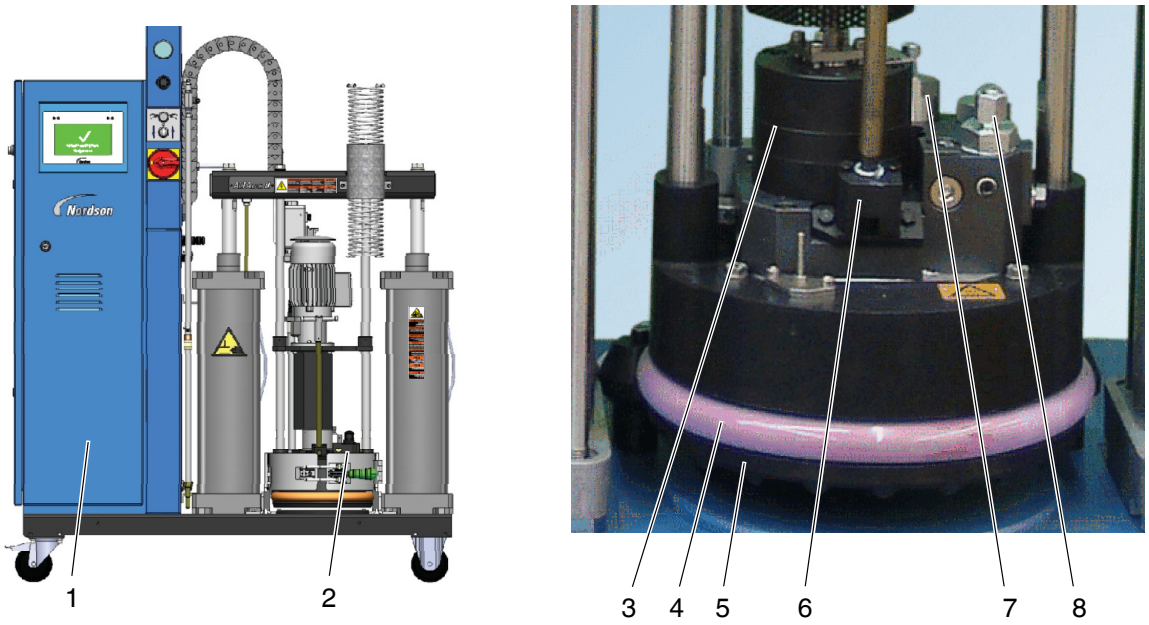


Figure 2-1

1 Electrical cabinet
2 Platen
3 Pump
4 Sealing ring
5 Melting plate
6 Aeration and air relief valve
7 Pressure control valve *Material pressure*
8 Hose fitting

Electrical Cabinet

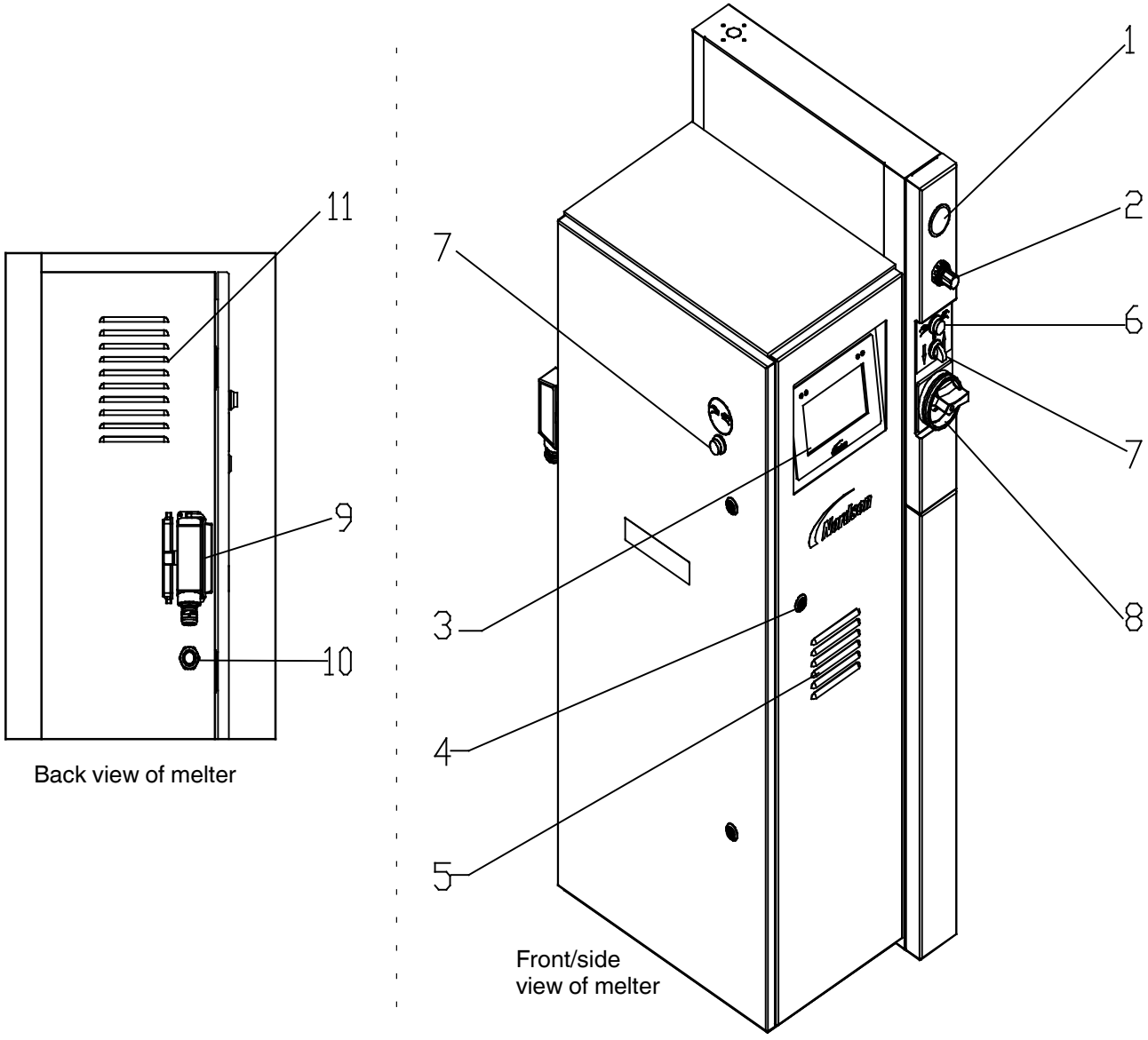


Figure 2-2

1 Display *Platen pressure*
2 Pressure control valve *Platen pressure*
3 Touch Screen Display
4 Door lock
5 Air filter / fan with filter
6 Button *Two-hand control*
7 Selector *Raise/lower platen*
8 Main switch
9 I/O Connector
10 Cable gland *Inputs/outputs*
11 Air Filter

Button Two-hand Control and Selector Raise/Lower Platen

Used to raise and lower the platen.

WARNING! The two-hand control may only be operated by one person using both hands!

Main Switch

The main switch is used to switch the bulk melter on and off.

Position **0**/OFF = Bulk melter is switched off.

Position **I**/ON = Bulk melter is switched on.

Padlocks can be used to protect the main switch from being turned on by unauthorized personnel.

Fan with Filter

The fan reduces the temperature inside of the electrical cabinet. The filter must be serviced regularly. Refer to page 8-7, *Fan and Air Filter*.

Door Lock

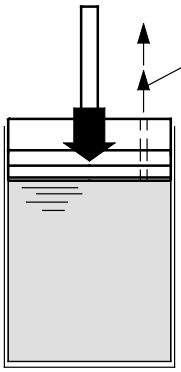
The electrical cabinet can be opened for installation, maintenance and repair. Store the included key such that it is accessible only to qualified and authorized personnel. The bulk melter may not be operated when the electrical cabinet is open.

WARNING! Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.

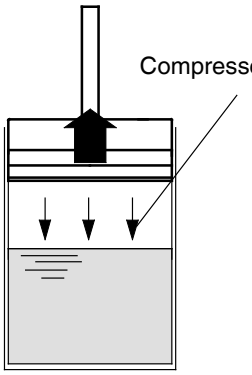
WARNING: Disconnect the bulk melter from the line voltage.

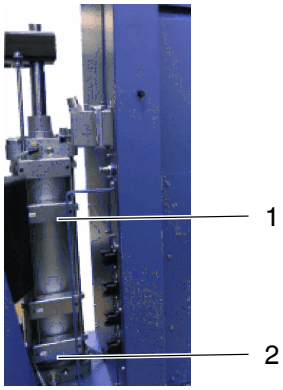
Function / Concepts

Raising and Lowering Platen



Deaerate





The pneumatic cylinders raise and lower the platen. When lowering the platen, a two-hand control must be operated for safety reasons until the platen is in the container. The selector *Raise/lower platen* then lights up green.

Deaerating Container

The air relief valve must be opened manually to allow air to escape when the platen is lowered into the container.

Aerating Container

To prevent a vacuum from forming when the platen is lifted out of the container, the container must be aerated manually.

Platen Position

WARNING: Risk of squash! Make sure that switch 1 is not actuated until the platen is inside the container.

A switch rod activates the switches (1 and 2) one after the other, triggering the following switching functions:

- Switching functions when lowering:
  - Switches from two-hand lowering mode to normal lowering mode when the platen sealing ring is completely submerged in the container (switch 1)
  - Activates the *Container empty* indication (switch 2).
- Switching functions when raising:
  - Switches off container aeration (switch 1).

Heating and Temperature Control

The bulk melter electronically controls the temperature of various components of the bulk melter itself (e.g. heating punch) as well as connected components of an entire application system.

Over temperature shutdown

The over temperature shutdown feature protects the bulk melter and the material from overheating. For over temperature shutdown, the heater and motor are switched off.

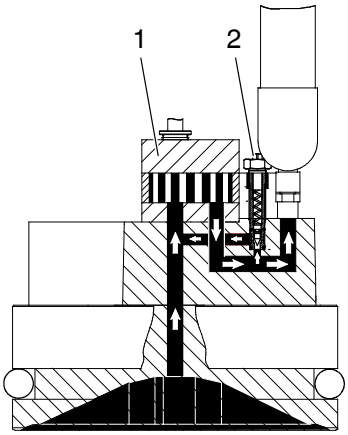
Under temperature Interlock

The under temperature interlock prevents the bulk melter motor from being switched on as long as the material is too cold and thus too thick. This could damage the pumps.

Standby

Standby serves to protect the hot melt material and to save energy during breaks in production. The temperature set points are reduced by a standby value.

Melting Process and Material Flow



Principle drawing

The material is melted only directly below the melting plate. A pump feeds the melted material to the hose connection.

Safety Valve

A safety valve (2) limits the material pressure generated by the pump (1).

The standard safety valve (2) is fixed at

100 bar	10000 kPa	1450 psi

When the pressure is exceeded, the safety valve opens, allowing the material to circulate within the adapter plate.

Material Pressure

Pressure Control Valve

The mechanical pressure control valve can be manually adjusted up to

75 bar	7500 kPa	1100 psi

Also refer to page 4-8, *Setting Material Pressure*.

Modes

AltaPail bulk melters operate in the following modes:

Normal Mode (Auto Scan)

When the bulk melter is first switched on, it is in normal mode. In normal mode the bulk melter checks the current temperature of the platen, the hoses and the applicators to verify that they are within the set temperature ranges.

Standby

The temperatures of the platen, the hoses and the applicators are lowered from their operating temperature (hereafter referred to as set point temperature) by a set number of degrees.

Fault

The bulk melter alerts the user when a fault occurs, e.g. a sensor fault (RTD) or a temperature that is not within the permitted range.

Section 3
Installation

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Installation Personnel's Experience

The instructions contained in this section are intended for personnel with experience/authorization in the following fields:

- Application methods with hot melt adhesive or similar materials
- Industrial electrical wiring of power and control lines
- Industrial mechanical installation
- General knowledge of process control.

Transport

- Refer to page 12-5, *Dimensions and Weights* for weight. Use only suitable transport devices (lift truck or forklift). **Do not lift with a crane**.
- If possible, use the pallet on which the bulk melter was delivered, and fasten the bulk melter to the pallet.
- Protect from damage, moisture and dust with suitable packing material.
- Avoid jolts and vibrations.

Storage

Do not store the bulk melter outside! Protect from humidity, dust and extreme temperature fluctuations (formation of condensation).

Hardware Installation Tasks

- Verify that the required installation conditions and utilities exist.
- Unpack and inspect the melter.
- Mount the melter on the parent machine or support structure.
- Configure the electrical service.
- Connect hot melt hoses and applicators and/or handguns.
- Connect a compressed air supply.
- (Optional) Install inputs and outputs.
- Set up the melter for gear-to-line operation.
- (Optional) Connect an applicator driver, pattern controller, or timer.

Unpacking

Unpack carefully and check for damage caused during transport. Save pallet and fastening and packing material for later use, or dispose of properly according to local regulations.

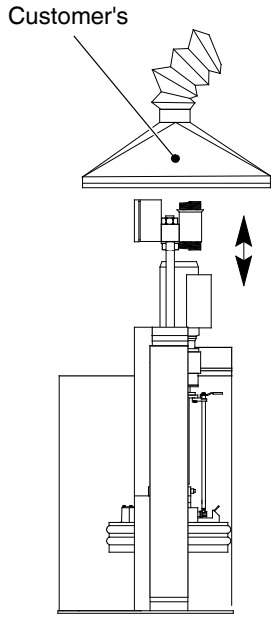
Lifting (Unpacked Bulk Melter)

Refer to page 12-5, *Dimensions and Weights* for weight. Lift only with a suitable floor conveyor (lift truck or forklift). Do not lift with a crane.

Setting Up

- Set up only in an environment that corresponds to the stated Degree of Protection. Refer to page 12-1,*Technical Data*. Do not set up in a potentially explosive environment!
- Protect from vibration. Remove transport protection (if present).
- Make sure there is sufficient clearance around the system, especially above it. Refer to page 12-5, *Dimensions and Weights* for dimensions.
- Observe the minimum hose bending radius (Refer to the hose manual).

Exhausting Material Vapors



Make sure material vapors do not exceed the prescribed limits. Refer to the **M**aterial **S**afety **D**ata **S**heet (MSDS) sheet that came with the adhesive for first aid, handling/storage, exposure and personal protection information.

If necessary, exhaust material vapors and/or provide sufficient ventilation of the location of the equipment.

Figure 3-1 Principle drawing

Electrical Connections - General Information

WARNING! Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.

WARNING! Connect external control and signal circuits with suitable cable in accordance with the NEC, class 1. To prevent short-circuiting, lay the cables such that they do not touch printed circuits on PCBs.

Observe when Using Residual Current Circuit Breakers

Local regulations in some industrial branches require residual current circuit breakers.

- Use permanent, fixed line voltage connections.
- Install the residual current circuit breaker between the power supply and the bulk melter.
- Use residual current circuit breakers sensitive to pulsating current or universal current (> 30 mA).

Laying Cable

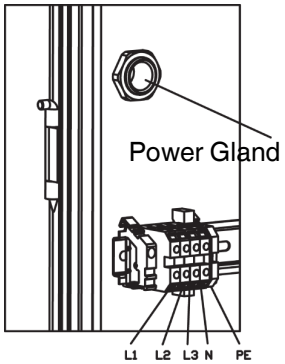
WARNING! Use only temperature resistant cable in the heating part of the bulk melter. Make sure cables do not touch rotating and/or hot parts. Do not pinch cables and check regularly for damage. Replace damaged cables immediately!

Power Supply

WARNING! Operate only at the operating voltage shown on the ID plate. Permitted deviation from the rated line voltage is ±10%.

CAUTION:

- The power cable cross-section must comply with the rated current (Refer to ID plate)
- The bulk melter must be installed securely, using a permanent power supply connection.



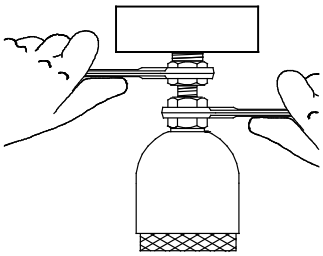
Mains terminal (example)

Connecting Hoses

Refer to the documentation that came with the hose for additional installation, safety and troubleshooting information.

WARNING: Hot! Risk of burns. Wear heat-protective gloves.

Second Open-end Wrench

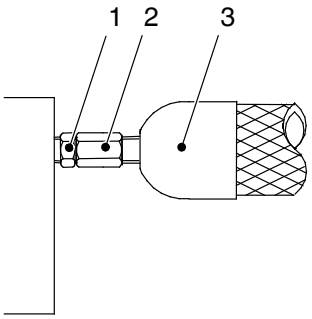


To prevent the hose connection from turning, use a second open-end wrench when connecting and disconnecting the hose.

Electrical connection

Up to two hoses can be attached to the platen. Guide the hoses through the hose holders to the platen and initially connect them electrically to interfaces Hose/Applicator 1 and Hose/Applicator 2 .

Connecting



If cold material can be found in the hose connection (1), the components (2, 3) must be heated until the material softens (approx. 70 °C / 158 °F, depending on material).

1. First connect the hose (3) electrically to the unit.
2. Heat the bulk melter and hose to approx. 70 °C / 158 °F.
3. Secure the hose to the unit.

NOTE: Close unused hose ports with Nordson port plugs.

Disconnecting

WARNING: To prevent serious burns, You ***MUST*** relieve the melter pressure before disconnecting pressurized components, such as hoses, and applicators/handguns.

Relieving pressure

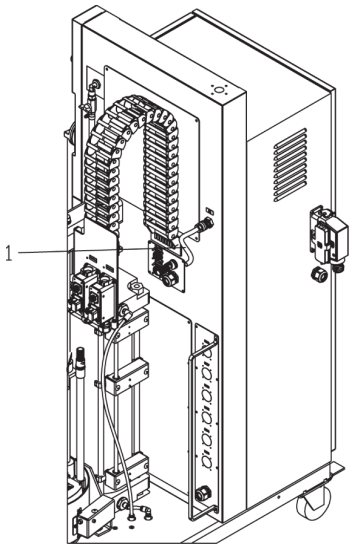
1. Switch the pump Off.
2. Set selector *Raise/lower platen* to *0/stop*.
3. Place a container under the nozzle(s) of the applicator or handgun assembly.
4. Applicators/handguns: Activate the solenoid valve(s) electrically or manually; or, pull the trigger on the handgun. Repeat this procedure until no more material flows out.
5. Properly dispose of material according to local regulations.

Connecting Assembly Handguns

Connect the assembly handgun switches to receptacles Hose/Applicator 1 and Hose/Applicator 2.

When the assembly handgun is triggered (switch closed), the pump is switched on.

Connecting Compressed Air

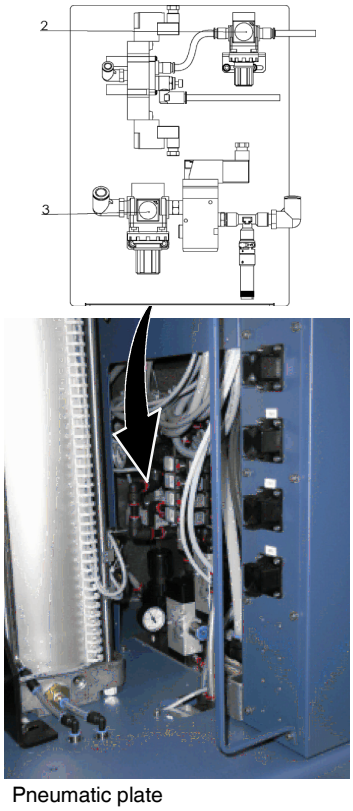


Connect dry, clean and non-lubricated compressed air to the compressed air connection (1). Dirt particles in the air may not exceed 30 µm in size.

Air pressure			
Min	3 bar	0.3 MPa	43.5 psi
Max	8 bar	0.8 MPa	116 psi
NOTE: A pressure restrictor valve behind the compressed air connection limits the air pressure to 8 bar / 0.8 MPa / 116 psi			

Pneumatic Plate

Also refer to pneumatics diagram.



Pneumatic plate

Pressure Control Valves

CAUTION: Do not change the setting:

- *Raise pneumatic cylinder* (2).

NOTE: Default pressure is 1.6 Bar / 0.16 Mpa / 23.2 PSI

- *Aerate container* (3):

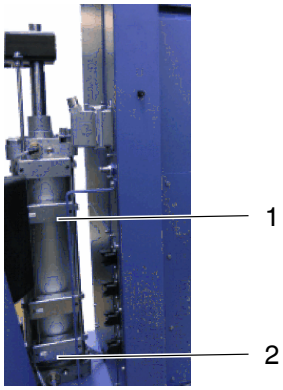
NOTES:

- Default pressure is 1 Bar / 0.1 Mpa / 14.5 PSI
- A lower pressure makes it difficult to raise the platen.

Adapting the Bulk Melter to the Container Used

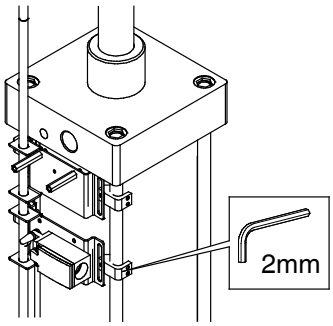
Platen Position: Adjusting Switches

WARNING: Risk of squash! Make sure that switch 1 is not actuated until the platen is inside the container.

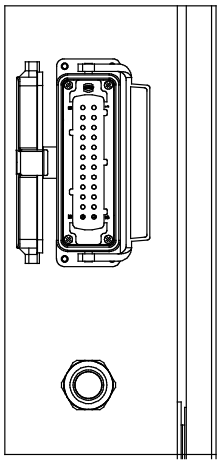


A switch rod activates the two switches (1 and 2) one after the other, triggering the following switching functions:

- Switching functions when lowering:
  - Switches from two-hand lowering mode to normal lowering mode when the platen sealing ring is completely submerged in the container (switch 1)
  - Activates the *Container empty* indication (switch 2).
- Switching functions when raising:
  - Switches off container aeration (switch 1).



Installing Inputs and Outputs



The inputs and outputs are used to exchange data with the customer's production equipment and control hardware such as a PLC.

1. A female quick connector (24 positions + PE) is located on the melter side panel. Route a signal cable from the control equipment to the melter through a male quick connector (24 positions + PE). The male quick connector has a M25 strain relief to fasten the signal cable. I/O connector designation: -10X21 Function: transmits the digital input/output signals and gear-to-line signal between the parent machine and the Nordson melter provide 24VDC from internal melter.

NOTE: Use a signal cable suitable for NEC class1 remote control and signaling circuits. To reduce the possibility of electrical shorting, route the cable so that it does not touch nearby circuit boards.

2. Connect each pair of input and output wires to the appropriate terminals on I/O connector. Refer to table below for the terminal numbers that correspond to each input.

Figure 3-2 Back of electrical cabinet

Connecting Line Speed Voltage

To use automatic mode, a signal generator, such as an encoder, must be provided by the customer and installed to measure the production line speed. The pump controller accepts an analog 0-10 V_{DC} input signal. Connect to coupler component -190U1; make sure the polarity is correct - refer to wiring diagram.

Terminal Block XL1

Item	Description	Control Options	Terminals	Notes
1	Standard input 1	Notes A and B	-10X21:8,-10X21:9	Input activated with 10 - 30 VDC. The input is not polarity sensitive.
2	Standard input 2	Note A	-10X21:10,-10X21:11	Input activated with 10 - 30 VDC. The input is not polarity sensitive.
3	Standard input 3	Note A	-10X21:12,-10X21:13	Input activated with 10 - 30 VDC. The input is not polarity sensitive.
4	Standard input 4	Note A	-10X21:7,-10X21:14	Input activated with 10 - 30 VDC. The input is not polarity sensitive.
5	Standard output 1	Note C	-10X21:1,-10X21:2	The output is a electromechanical relay contact rated for 2 Amps at 240 VAC or 30 VDC.
6	Standard output 2	Note C	-10X21:3,-10X21:4	The output is a electromechanical relay contact rated for 2 Amps at 240 VAC or 30 VDC.
7	Standard output 3	Note C	-10X21:5,-10X21:6	The output is a electromechanical relay contact rated for 2 Amps at 240 VAC or 30 VDC.
8	gear-to-line 0-10V input		-10X21:15,-10X21:16	Connect the positive wire to -17X21:15. Connect the negative wire to -17X21:16. Note that the negative input is connected to chassis (PE).
9	Pump remote on/off		-10X21:17,-10X21:18	Input activated with 18 - 30 VDC. The input is not polarity sensitive. Activating the input will turn on the motor when the remote control feature is enabled from the user interface.
10	Pump drive running		-10X21:19,-10X21:20	Electromechanical relay contact that indicates motor is running when closed. Contact rated for 1.5 Amps at 240 VAC or 30 VDC.
11	24VDC Output		-10X21:21,-10X21:22	24 V - 17x21:21 0 V - 17x21:22 Contact rating max: 24 VDC/1A

NOTE A: Input Options: Disabled, Standby, Heater Control, Pump Control and External Zone 1-8. Automatic Standby is only available for input #1.

B: Automatic Standby is only available for input #1.

C: Output Options: Disabled, Ready, Ready-Pump On, Fault, Pail Low, Alert and Service Reminder.

Removing Bulk Melter

1. Remove the container.
2. When the bulk melter will not be used for longer periods of time, purge with cleaning agent if necessary. Refer to page 8-6, *Purging with Cleaning Agent*.
3. Wipe off sealing ring and clean melting plate. Refer to page 8-6, *Cleaning Melting Plate*.
4. Disconnect all lines to the bulk melter, and allow bulk melter to cool.

Bulk Melter Disposal

When your Nordson product has exhausted its purpose and/or is no longer needed, dispose of it properly according to local regulations.

Section 4
Hardware Operation

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

First Time Startup

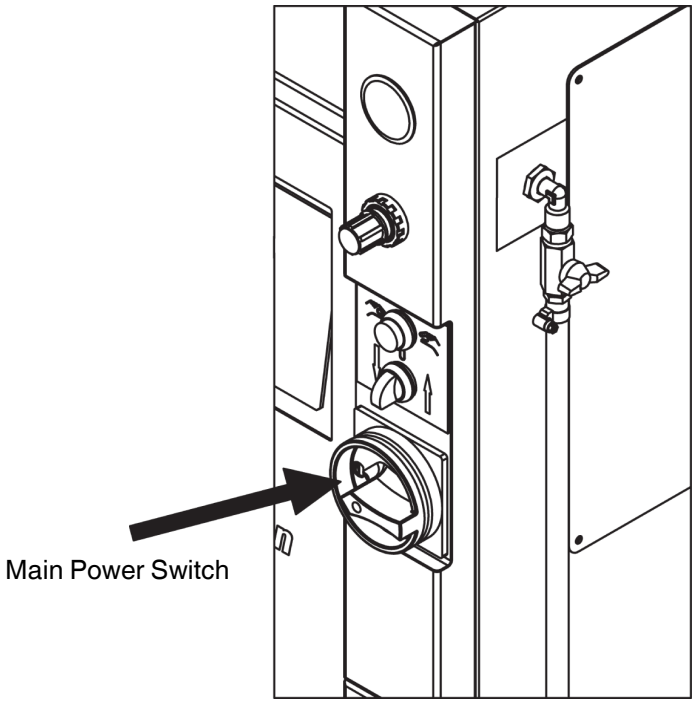
The initial startup is a 4-step process.

Step	Description	Refer to Page
1	Switch the Main Power On.	4-2
2	Following the handling instructions that came with the PUR adhesive container, place the container in place and remove the cover.	
3	Raise/Lower the Platen	4-3
4	Purge any material in the system.	4-6

The following sections detail each procedure in greater detail.

Switching the Melter On/Off

- To switch the melter **On**, turn the Main Power Switch clockwise (to the right)
- To switch the melter **Off**, turn the Main Power Switch counter clockwise (to the left)



NOTE: Before initial startup and every time the container is replaced, remove residue and lubricate the platen sealing ring (Refer to page 8-2, *Processing Materials* for lubricant). Do not use sharp tools.

Inserting and Replacing Containers

CAUTION: Place only undamaged, suitable containers in the bulk melter; otherwise the platen sealing ring will be damaged. Refer to page 12-1, *Suitable Containers*. Always keep the base plate of the bulk melter clean so that the container is positioned straight.

WARNING: Risk of pinching parts of the body between platen and container. Ensure that, during operation, no one else is near the system.

1. Raise the platen.
2. Set selector *Raise/lower platen* to *0/Stop*.
3. Insert or replace container.
4. Lubricate sealing ring. Refer to page 8-2, *Processing Materials*.
5. Lower platen. Refer to page 4-5, *Lowering Platen*.
6. Properly dispose of empty container according to local regulations.

Raising the Platen when there is no Container

WARNING: Risk of burns! Hot material can splash out when the platen exits the container. Hot material may flow out of the air relief valve. Wear goggles and heat-protective gloves.

1. Set selector *Raise/lower platen* to *Raise*.
2. Press both buttons on the two-hand control at the same time (within 0.5 seconds).

Raising the Platen when there is a Container

To prevent damage to the sealing rings, make sure you do the following steps when attempting to raise the platen from an adhesive container.

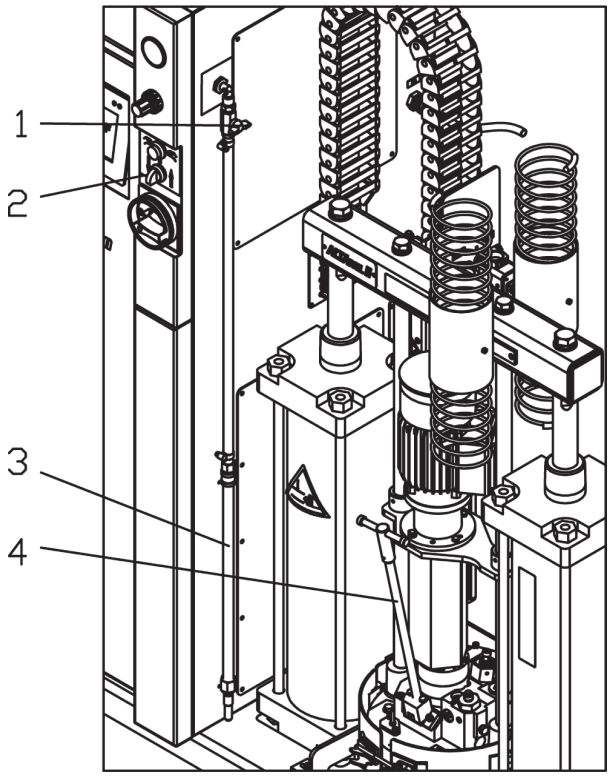
Step 1 - Make sure the platen is hot enough so that none of the adhesive sticks to it. From the ***Home*** screen, touch the ***Platen*** button then ***Adjust Set Point***.

Step 2 - Use compressed air from beneath the platen to help the heated platen raise itself up. This process is called Aerating the Container. The following section details this procedure in greater detail.

Aerating Container

WARNING! Risk of injury! Do not use an external source of compressed air for aeration. Excessive pressure could damage both the platen the adhesive container.

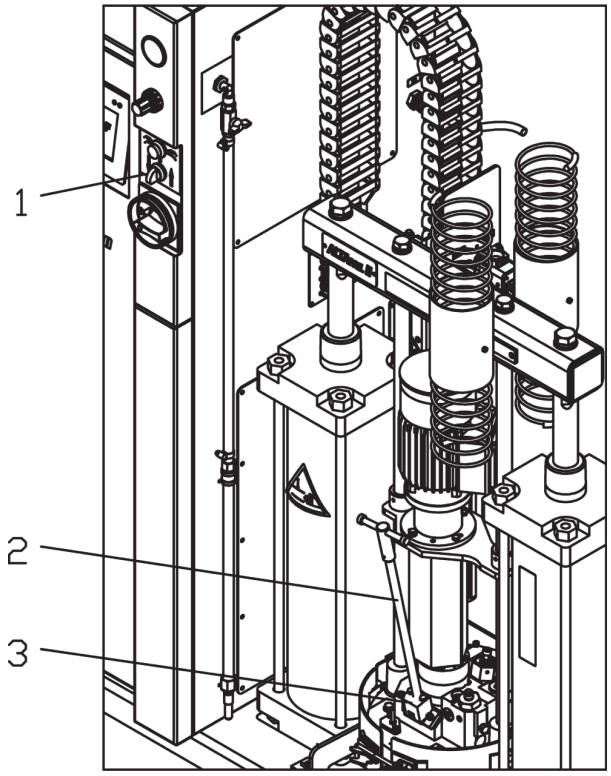
1. Make sure the selector *Raise/lower platen* (2) is set to *0*.
2. Remove the rod (4) out of the aeration connection.
3. Secure the aeration tube (3).
4. Open the shutoff valve *Compressed air to aerate container* (1).
5. Set selector *Raise/lower platen* to *Raise*.



Lowering Platen

When lowering the platen into an adhesive container, you must always deaerate or let any air escape from under the platen.

1. Set selector *Raise/lower platen* (1) to *Lower*.
2. Place a drip pan under the air relief valve (3).
3. Unscrew the rod (2) somewhat to open the air relief valve.
4. Press both buttons on the two-hand control at the same time (within 0.5 seconds) until the platen is inside of the container. The downward motion continues on its own now.
5. Close air relief valve when material flows out free of bubbles: Screw the rod back into place.
6. Properly dispose of material according to local regulations.



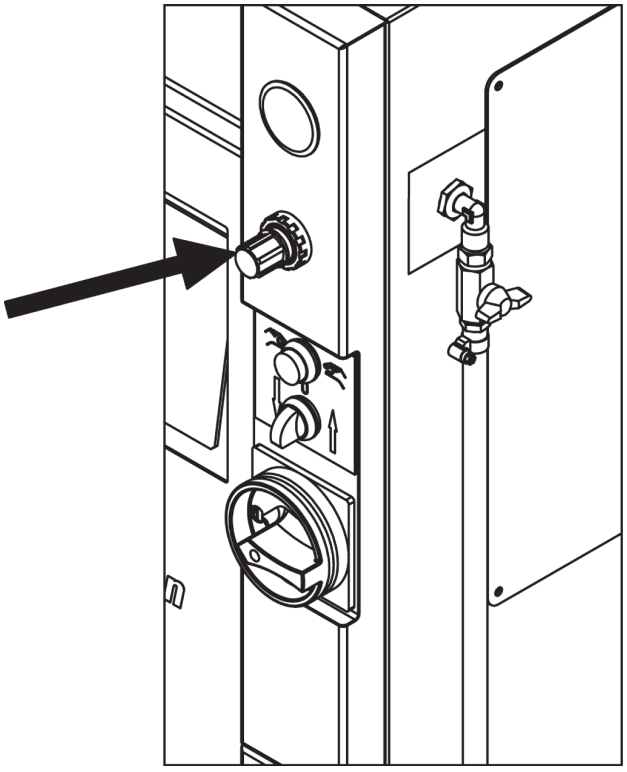
Purging Bulk Melter

You ***must*** remove or purge this material before you can use the melter in a production environment.

Test material was used for testing prior to shipping the melter. There may be some of the test material on the melting plate and in the pump. Place a container under the applicator and run the pump until you no longer see the test material.

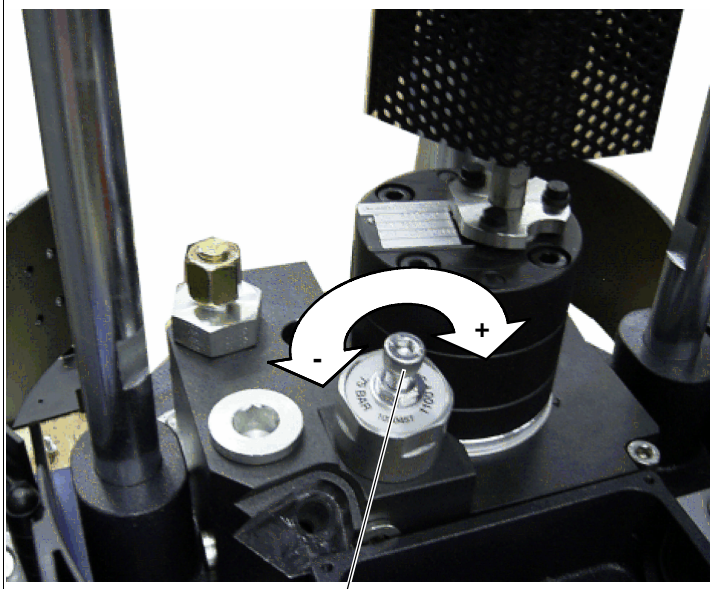
Setting Platen Pressure

- Increase pressure for high-viscosity (ropy) materials
- Decrease pressure for low-viscosity (liquid) materials.



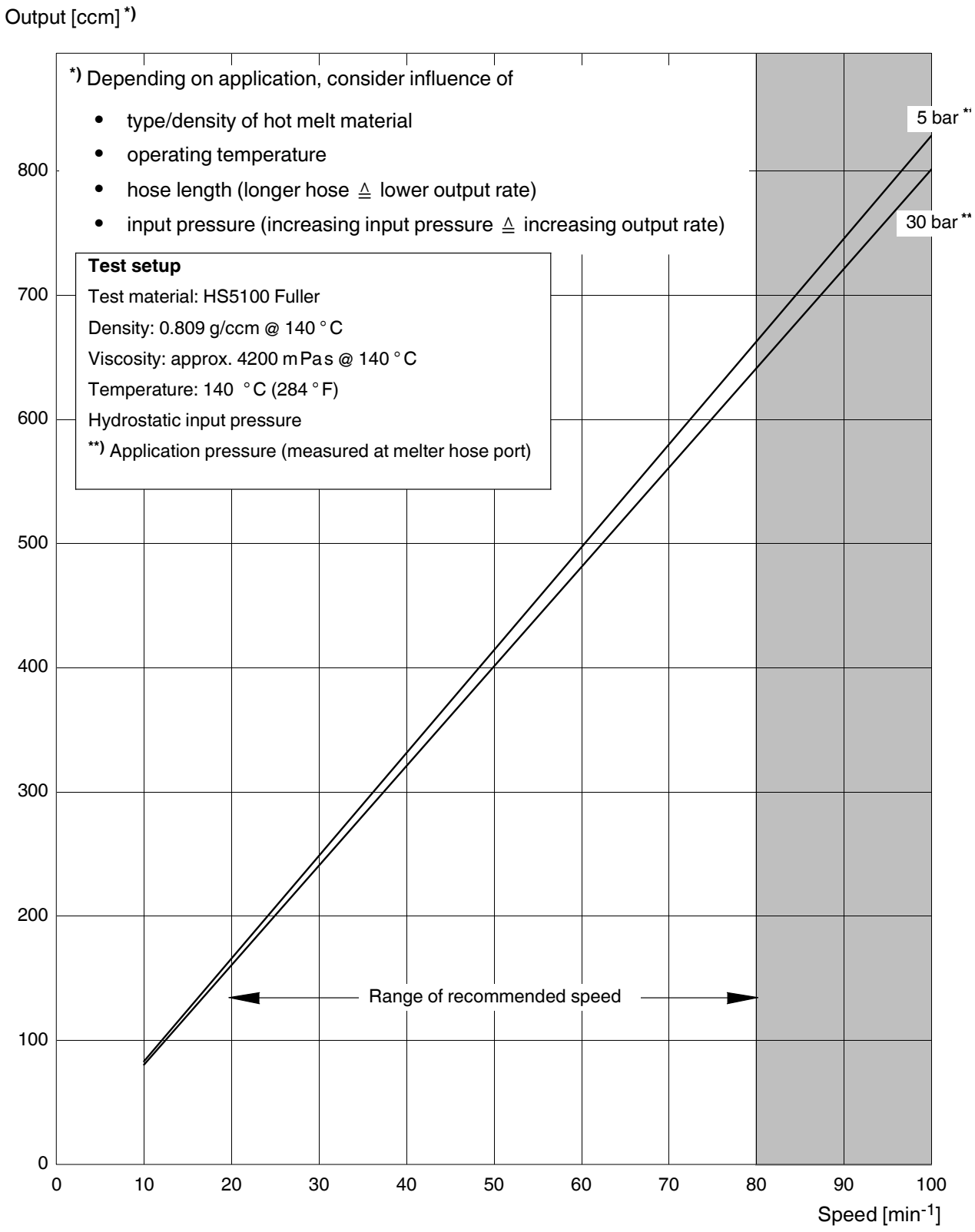
NOTE: The default pressure is 6 bar / 0.6 MPa / 87 psi

Setting Material Pressure

Pressure Control	Actuator
Mechanical control with manually adjustable pressure control valve (1)	

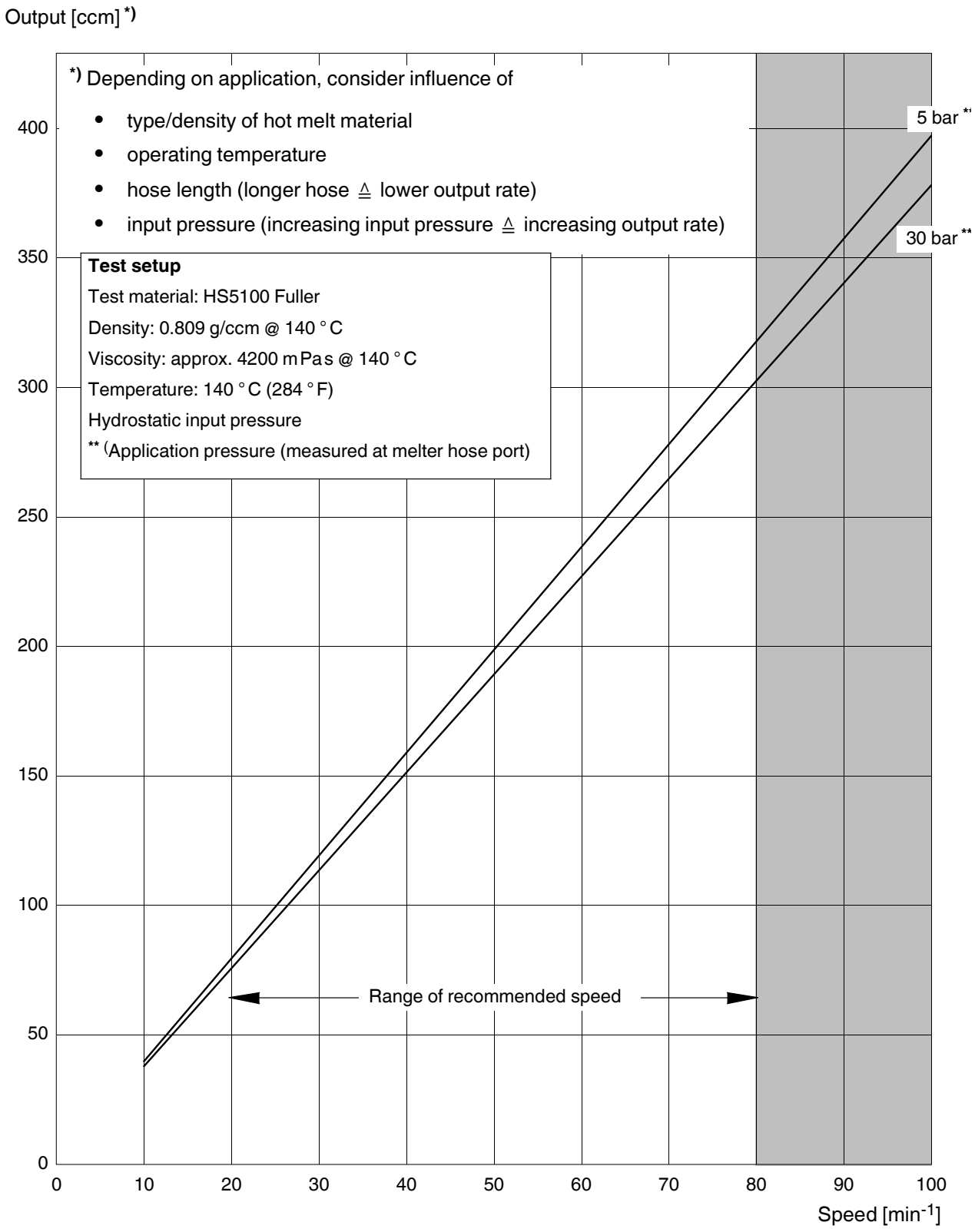
Output Quantity SN0773 (Formerly PR25m2)

The output quantity is a factor of the pump used.



Output Quantity SN0371 (Formerly PR12m2)

The output quantity is a factor of the pump used.



Section 5

About the Touch Screen Display and User Interface

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Overview

The touch screen display replaces the membrane control panel used on previous Nordson melters. With a touch of your finger on the display screen, you can navigate the graphical user interface to setup, operate and maintain this melter.

The melter is shipped from the factory with most software settings pre-configured and ready to use. However, there are some settings that you must configure and fine-tune to best fit your manufacturing process.

About the Home Screen

The **Home** screen is divided into the following parts.

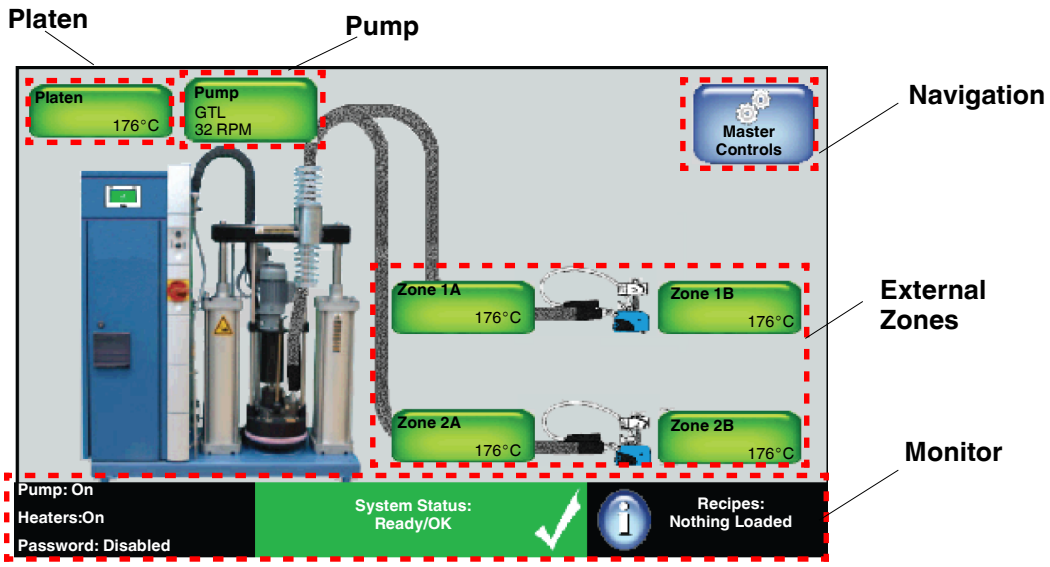


Figure 5-1 The Home Display

NOTE: The Home screen only displays the type of applicator connected to the melter. The graphic does not change based on PID Type selection.

Item	Graphic
Standard/ Large Applicator	
Hand Applicator	
• Air Heaters • Standard/Large Hose • Custom PID Values	N/A

Navigation - The Master Controls Screen

You can access the Master Controls screen from:

- The **Home** screen, touch 

- Most other screens, touch touch 

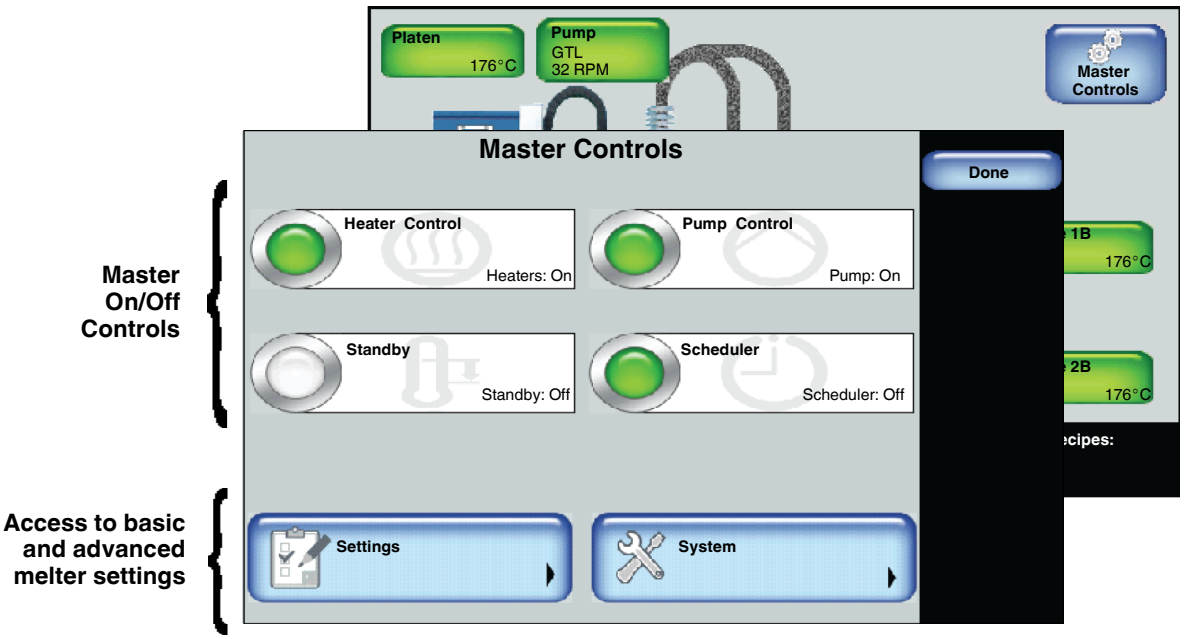


Figure 5-2 The Master Controls Display

About the Master On/Off Controls

Use the **Master Controls** to switch the following On or Off:

Touch	Description
	Switch the heaters On or Off. **NOTE:** The master heater control automatically switches Off, along with the pumps when the melter is in a Fault condition.
	Switch the pump On or Off.
	Switch the system scheduler On or Off. Refer to *Configuring Scheduled Events* for more information.
	Place the melter into or out of Standby mode. **Notes:** • Manually place the melter In or Out of Standby mode. • Overrides any previously configured Scheduled and/or Standby events. • Refer to the next chapter for more information about programming the melter when to automatically enter or exit out of standby mode.

About the Heater Control, Standby and Scheduler Buttons

The following table describes what the color represents for **Heater Control**, **Standby** and **Scheduler** buttons .

Button	Color	Description
	Green	On
	White	Off

About the Pump Indicator Button

The following table describes what the **Pump** button color represents.

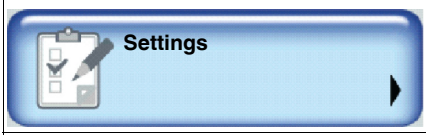
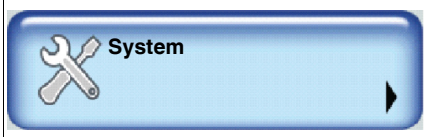
Button	Color	Description
	Green	On
	White	Off
	Orange	Auto Pump enabled
	Half green, Half white	Remote Pump Control setup and enabled

NOTES:

- The Master Pump and Heater Controls automatically switch Off, when the melter is in a Fault condition.
- You must wait until the melter status indicates **Ready\OK** before you can manually or remotely switch On the master **Pump Control**.
- You can enable the ***Auto Pump*** option, which automatically switches On the Master Pump Control *when* the melter status indicates **Ready\OK.**
- The Pump Control button uses different colors to indicate Remote Control and if the Auto Pump option is enabled. Refer to the table below for more information. Refer to *Enabling and Disabling Auto Pump* for more information.

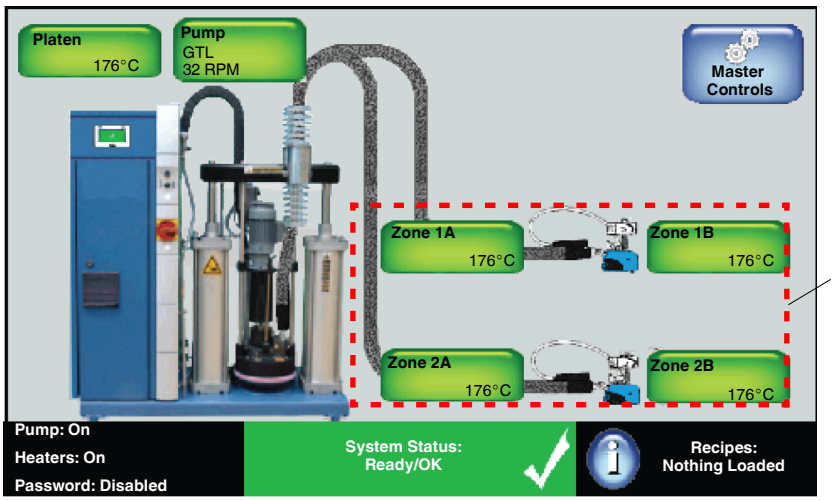
About Accessing Basic and Advanced Melter Settings

NOTE: Refer to the Quick Reference Card for a detailed menu map.

Touch	To configure …
	Temperature, Pump, Input/Output settings as well as to define Ready Delay and Standby automatic time-based settings.
	Password, Formats, Date/Time, Display settings and Language preferences. You can also define daily Scheduled heat and standby events and access Administrative functions such as System and Password Reset and access the event log.

External Zones - Hose and Applicator/Hand Gun

From the **Home Display**, you can view the state and status for each hose and applicator zone.



You can also touch an external zone to:

- Enable\disable hose and/or applicator zones.
- Create or modify hose and applicator zone names.
- Define individual zone set point temperatures.
- Modify default channel associations (PID).

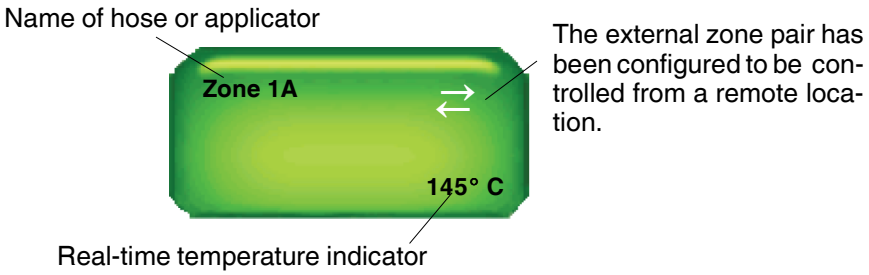


Figure 5-3 Zone button details

NOTE:

- External zones include hoses, applicators and optional air heaters.
- Default name consists of the word *Zone*, and its corresponding channel number. Typically, these are pairs, where the letter *A* represents a hose and the letter *B* represents the applicator. You can change these default channel associations.
- At least one external zone is required for normal operation.

About Zone States and Statuses

- Refer to Table 5-1 for a detailed explanation about of each possible zone ***state***.
- Refer to Table 5-2 for a detailed list and explanation of each possible zone ***status***.

Table 5-1 Zone State Reference

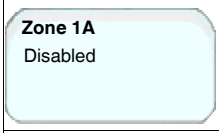
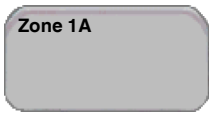
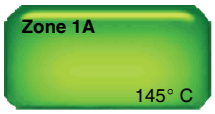
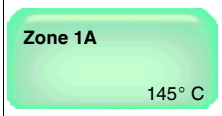
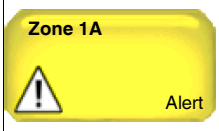
Zone States			
Button	**Color**	**State**	**Notes**
	White	Disabled	The zone is available, but disabled.
	Gray	Unavailable	The system cannot detect the zone.

Table 5-2 Zone Status Reference

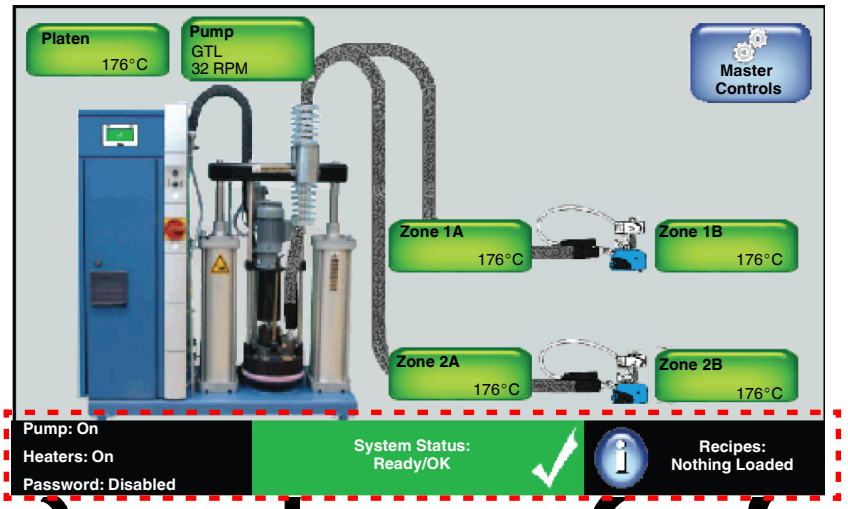
Zone Status			
Button	**Color**	**Status**	**Notes**
	Dark green	Ready/OK	The zone is enabled and has reached its set point temperature.
	Light green	Waiting for Ready	The zone is enabled and is in the process of heating to its set point temperature. • The zone is enabled and is in the process of heating to its set point temperature. • The system is in either Standby or Ready Delay mode. • A zone or pump is in an alert or fault condition. • The system itself is in an alert or fault condition.
	Yellow	Alert	The zone is enabled, but the system has detected an alert condition. Touch the zone with the alert to view system message. **NOTE:** In an alert condition, both the master Heater and Pump controls remain On. You have two minutes from the time the system detects an RTD or an over/under temperature condition before the alert condition is upgraded to a fault condition.
	Red	Fault	The zone is enabled, but the system has detected a fault condition. Touch the zone with the alert to view system message. **NOTE:** In a fault condition, both the master Heater and Pump controls are switched Off.

NOTES:

- You can modify zones at any time.
- Changes to set point temperatures and **PID Type** take effect when the zone is enabled and when the melter itself is in a **Ready/OK** state.
- Changes to the zone name and enabling/disabling take effect when you touch **Done**.
- The default name is displayed unless you modify it.
- The state of a zone is independent of the overall status of the melter.

Monitoring the Status of the Melter

You can view the status of the melter from the following:



View (only) the state of the Master Heater and Pump controls, as well as whether or not password protection is enabled.

View overall melter status.

Touch to view the event log

Touch to view Melter statistics.

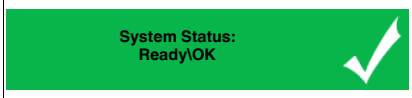
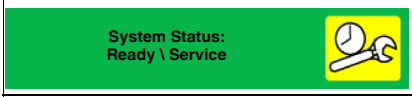
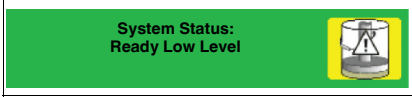
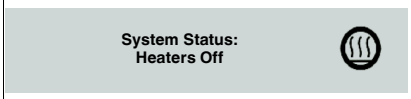
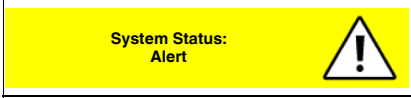
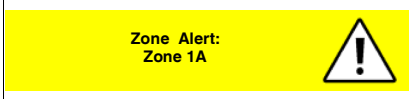
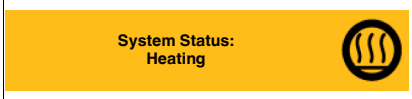
View which, if any, recipe is currently loaded.

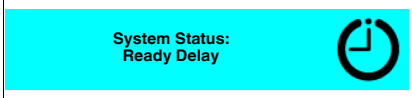
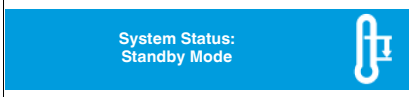
Touch to create, delete, load or unload a recipe.

NOTE: Refer to the Quick Reference Card for additional information.

About the Melter Statuses Indicator

The following table details the melter and zone\pump status messages.

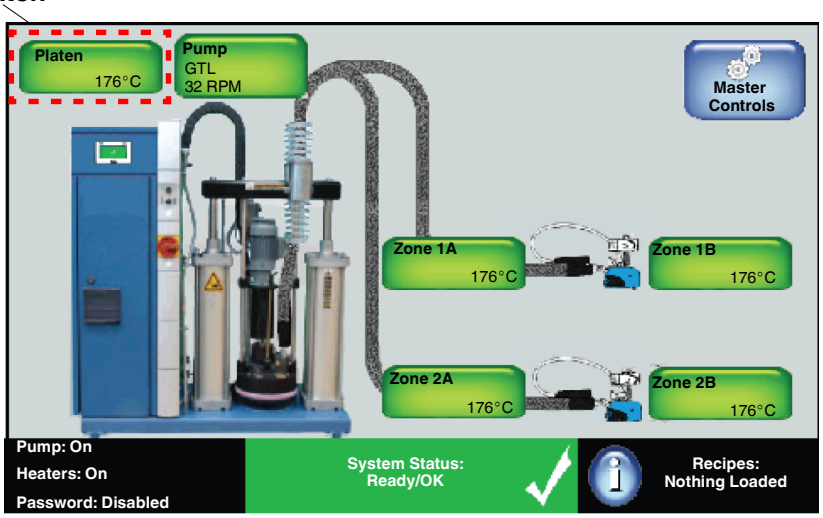
Button	Color	Heaters	Pumps	Description
	Dark green	On	On	All available and enabled zones and the pump are at their set points and/or have a status of Ready\OK.
	Dark Green	On	On	Same as Ready\OK, but a component requires regular scheduled servicing.
	Dark Green	On	On	Same as Ready\OK, but the container should be replaced.
	Light Gray	Off	On/Off	Zones at set point temperatures, pumps ready, but the master **Heater control** is Off. **NOTE:** This could be the result of a zone or pump fault.
	Yellow	On	On	The melter continues to work, but some functions may not be available. Melter requires servicing.
	Yellow	On	On	The system has detected a zone or pump alert condition. The melter continues to operate normally, but some functions may not be available. Melter requires servicing. **NOTE:** You have 2 minutes from the time the system detects an RTD and\or an over\under temperature alert before it is upgraded to a Fault condition, thereby stopping the pump. The heaters remain on, but all enabled zones cool and are maintained to their Standby temperatures.
	Red	Off	Off	A system fault condition has been detected. The melter has stopped working.
	Red	Off	Off	The system has detected a zone or pump fault condition. The melter has stopped working.
	Orange	On	Off	The system is in the process of heating all available and enabled zones to their set point temperatures.

Button	Color	Heaters	Pumps	Description
	Light Blue	On	Off	Although all available and enabled zones are at their set point temperatures, the Ready\OK is delayed until the user-defined time has elapsed.
	Blue	On	Off	The system has been manually or automatically placed into Standby mode.

Internal Zone - The Platen

The platen is a heated flat plate used to the melt the solid adhesive within the container. While in production, the heated platen automatically lowers itself, keeping contact with the solid adhesive in the container.

Platen



From the **Home** screen, you can view the state and status of the platen. Touch the **Platen** button to do the following tasks:

- Enable/Disable the Platen
- Modify the Platen set point temperature

Notes:

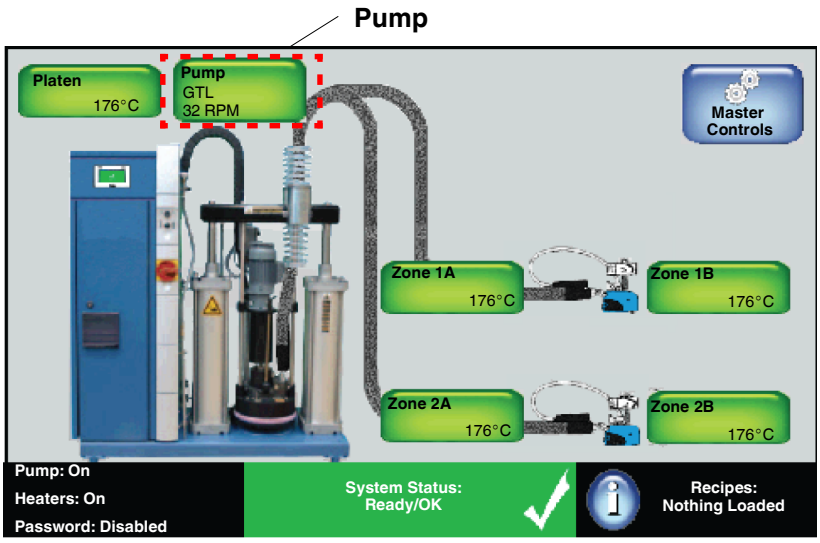
- Refer to Tables 5-1 and 5-2 for a detailed list and explanation of each zone state and status.
- Refer to *Inserting and Replacing Containers* for more information.
- You cannot rename the Platen button.

- A sensor is triggered, causing an warning message to appear, and for the melter status indicator to display the following message/graphic.

If you do not replace the container within a predefined time (the default is 0 seconds), the warning is upgraded to a fault. The pump stops running. Although the heaters remain on, the zones cool to their Standby temperatures.

The Pump

From the **Home** screen, you can view the state and status of the pump.



Touch the **Pump** button to do the following tasks:

- Enable\disable
- Define Manual or Gear-to-Line pump operation mode
- Manually define pump speed, or define Gear-to-Line settings
- Access the following Advanced settings:
  - Enable\disable the Auto Pump feature
  - Define Pump Off Delay Settings when using hand applicators
  - Define the Container Low to Empty settings (Advanced)

NOTE: Figure 5-4 details what an enabled pump displays. Refer to Tables 5-3 for a detailed list and explanation of each pump state and status.

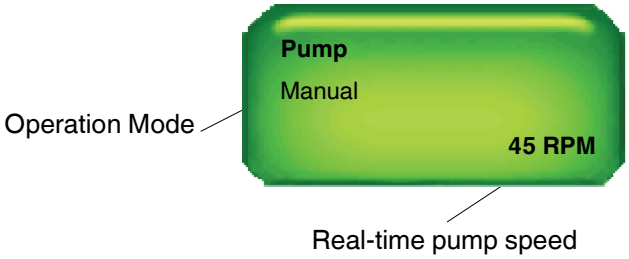
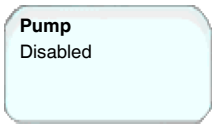
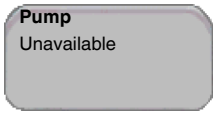


Figure 5-4 Pump button details

What the Pump Statuses Indicate

The following table details the pump status messages.

Table 5-3 Pump State Color Reference

Pump States			
Button	**Color**	**State**	**Notes**
	White	Disabled	The pump is available, but disabled.
	Gray	Unavailable	The system cannot detect the pump.
Pump Status			
Button	**Color**	**State**	**Notes**
	Dark green	Ready/OK	The pump is enabled and has reached its set point speed.
	Light green	Waiting for Ready	The pump is enabled and… • is waiting for the melter to reach its Ready/OK status before you can manually switch On the master Pump Control. • Auto Pump is enabled and is waiting for the melter to reach its Ready/OK status before automatically switching On the Master Pump Control. • The system is in either Standby or Ready Delay mode. • A zone or pump is in an alert or fault condition. • The system itself is in an alert or fault condition.
	Yellow	Alert	The pump is enabled, but the system has detected an alert condition. Touch the pump with the alert to view system message. **NOTE:** In an alert condition, both the master Heater and Pump controls remain On.
	Red	Fault	The Pump is enabled, but the system has detected a fault condition. Touch the pump with the alert to view system message. **NOTE:** In a fault condition, both the master Heater and Pump controls are switched Off.

Requirements for Running the Pump

The following lists the system requirements before running a pump:

- The melter status must indicate **Ready/OK**.
- The Pump must be enabled.
- In addition to the Platen, at least one external zone must be enabled.
- The Master Heater Control switch must indicate On.
- The Master Pump Control switch must indicate On.

Basic Pump Operation Modes

There are two default pump operation modes:

Operation Mode	Description
Manual (default)	Delivers adhesive at a constant speed.
Gear-to-Line	Delivers adhesive at a rate proportional to the line speed.

About the Screen Saver

Once the melter is running, the screen saver appears after 5 minutes (the default) of no user interaction with the touchscreen. The **Home** screen re-appears when you touch anywhere on the screen saver.

Figure 5-5 The Screen Saver

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Section 6

Basic Software Melter Configuration

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Overview - Getting the Melter into Production

The melter is shipped from the factory with most temperature, pump and melter (system) settings pre-configured and ready to use. However, there are some settings that you must configure and fine-tune to best fit your manufacturing environment.

Two conditions must be met before you can start using the melter in a production environment.

Condition	Description
#1 Getting to the System Status: **Ready/OK**	• The Master **Heater Control** is ***On***
#2 Getting the Pump to run	• The **Platen** is ***Enabled*** • At least one hose and applicator zone pair is ***Enabled*** • The Master **Pump Control** is ***On***

NOTE: The following assumes you have installed melter and the adhesive container is lowered the platen into position. Refer to *Installation* for more information.

Getting to the System Status: Ready/OK

The following flowchart assumes you have already installed and configured the melter for your manufacturing environment. You have also installed the adhesive container and lowered the platen into position.

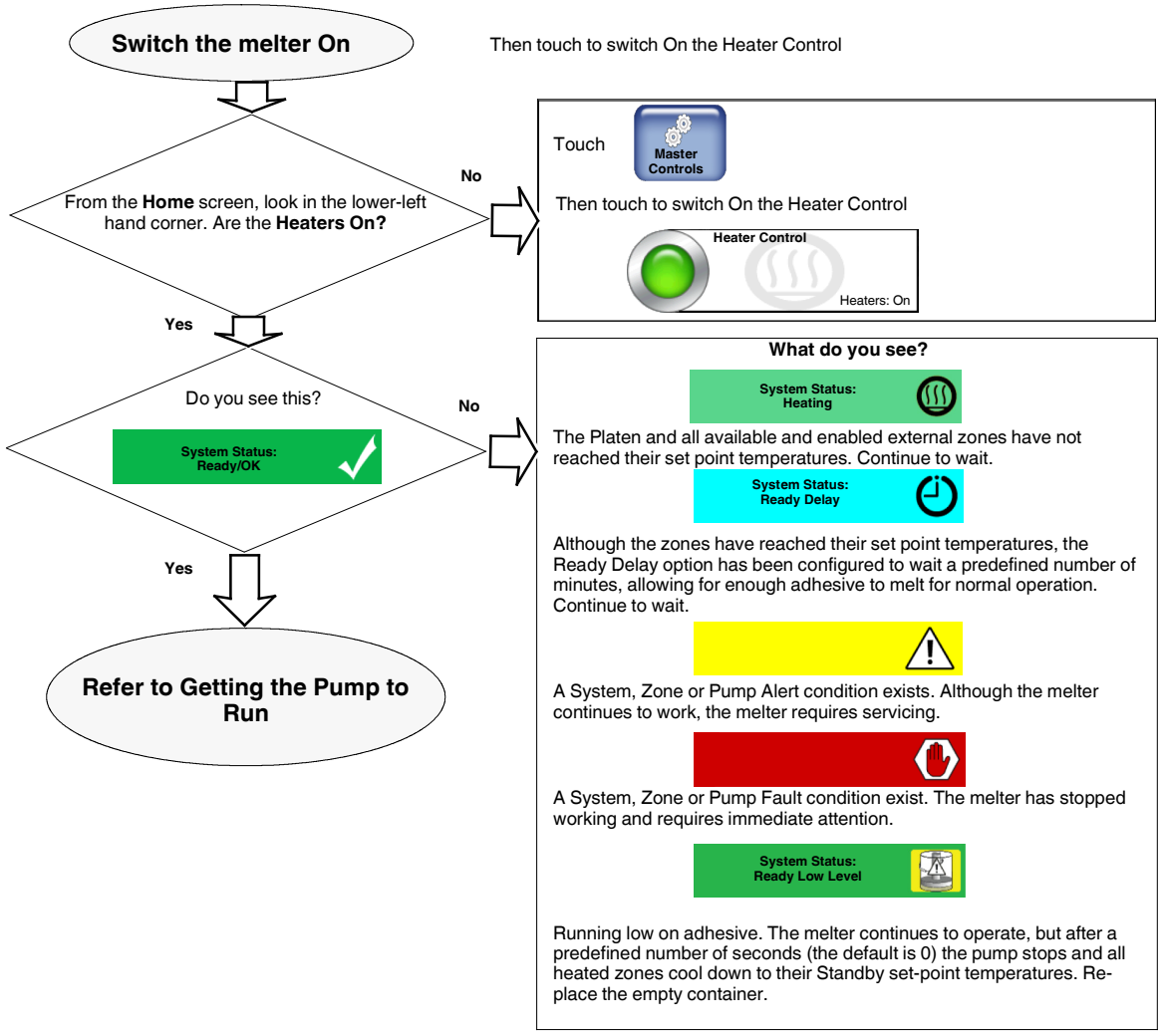


Figure 6-1 Getting to Ready/OK

Getting the Pump to Run

The following flowchart assumes the following:

- The Platen is enabled
- At least one external zone pair is enabled
- The system indicates **System Status: Ready/OK**

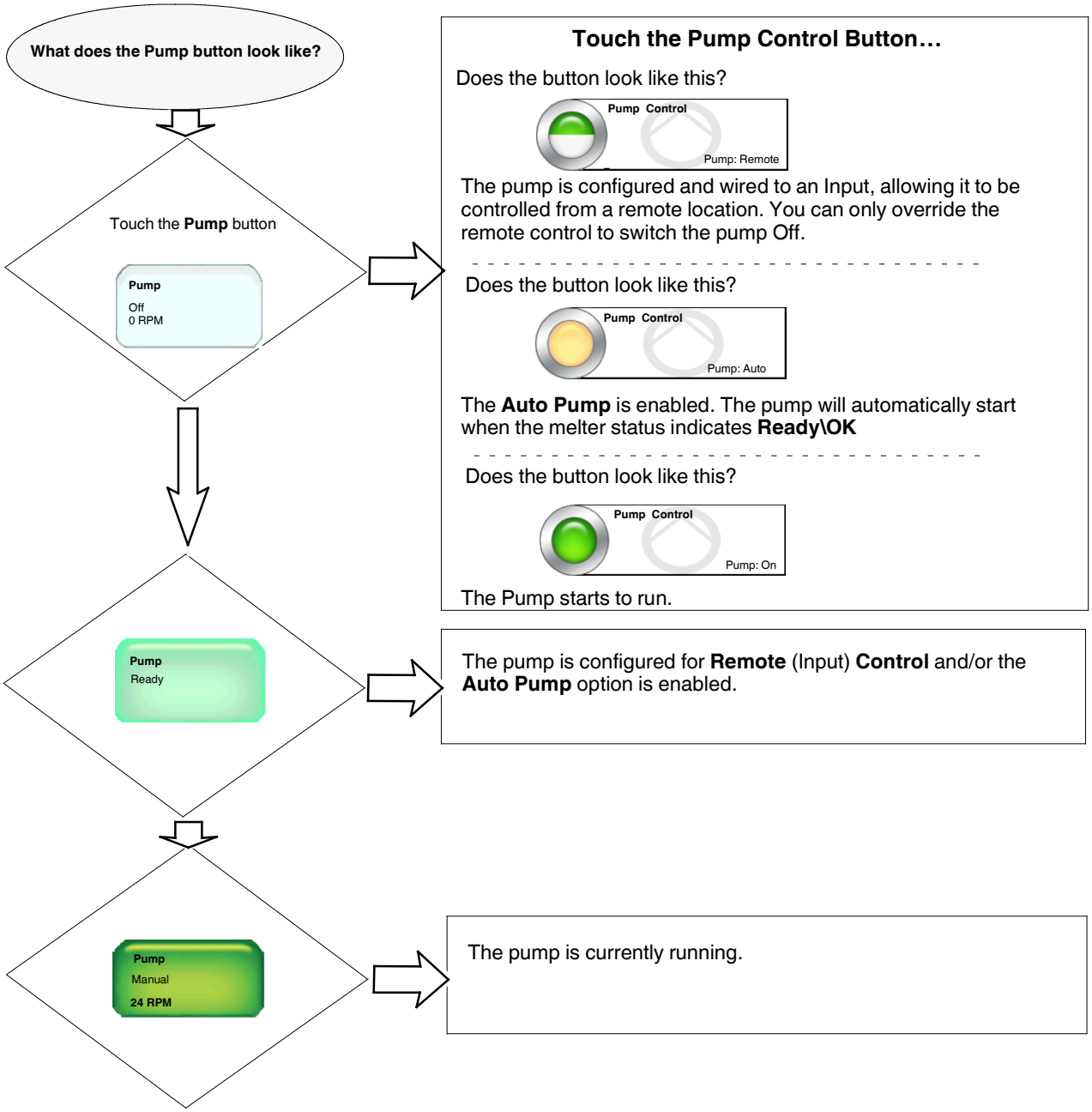


Figure 6-2 Getting the Pump to Run

Configuring Internal and External Zones

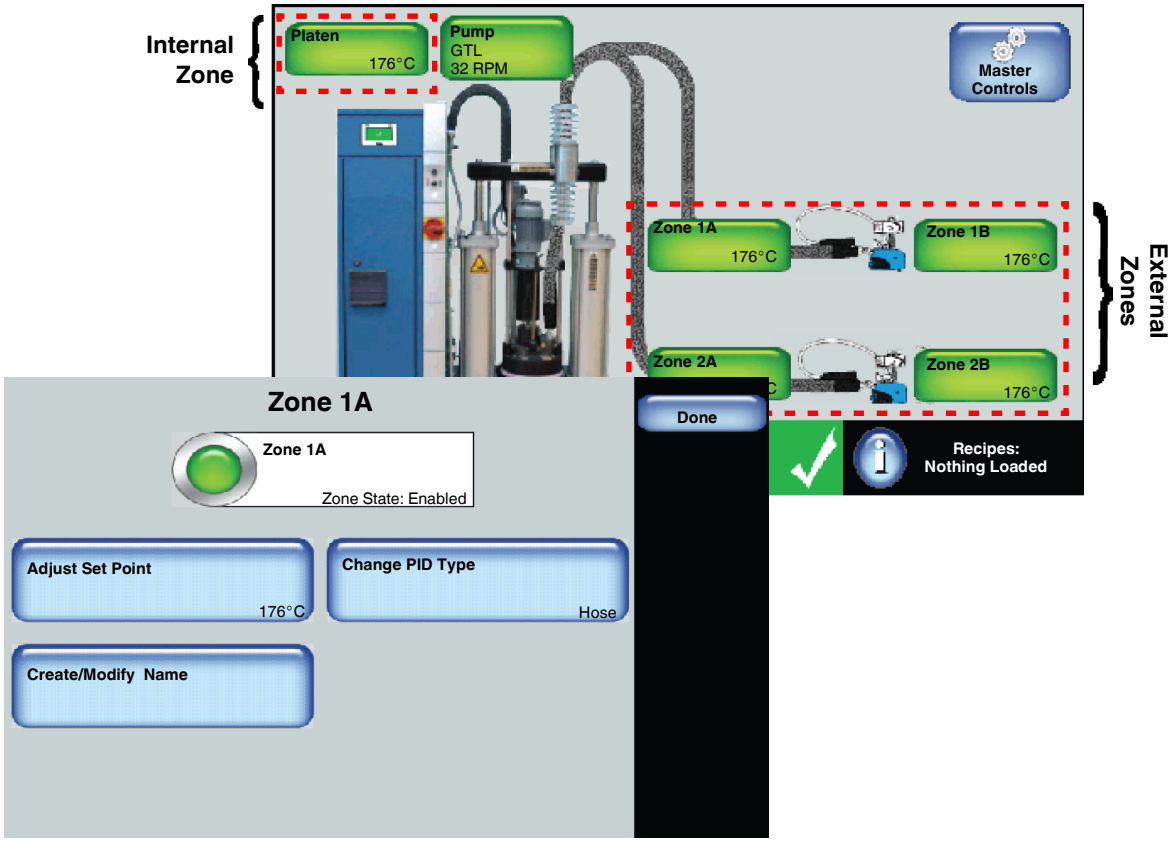
There are two types of zones.

Type	Default Name	Notes
Internal Zone	**Platen**	• There is only one internal zone - the Platen. • You can enable/disable the platen, as well as modify its set point temperature.
External Zones	Zone (# + letter) for example **Zone 1A**	• External zones include hoses, automatic or hand applicators and optional air heaters. • Default name consists of the word *Zone*, and its corresponding channel number. Typically, these are pairs, where the letter *A* represents a hose and the letter *B* represents the applicator. You can change these default PID type associations. • You can enable/disable the zone, change its PID (channel) type association, modify its set-point temperature and its name. • At least one external zone is required for normal operation.

Enabling/Disabling Internal and External Zones

The following are default settings for internal and external zones.

Zone	Default
Internal	Enabled
External	Enabled



1. Access the **Home** screen and touch a platen or any other zone that you want to enable or disable.
2. Touch the colored button to enable or disable the zone. Touch **Done.**

Button	Color	Description
	Green	On
	White	Off

3. Touch **Done.**

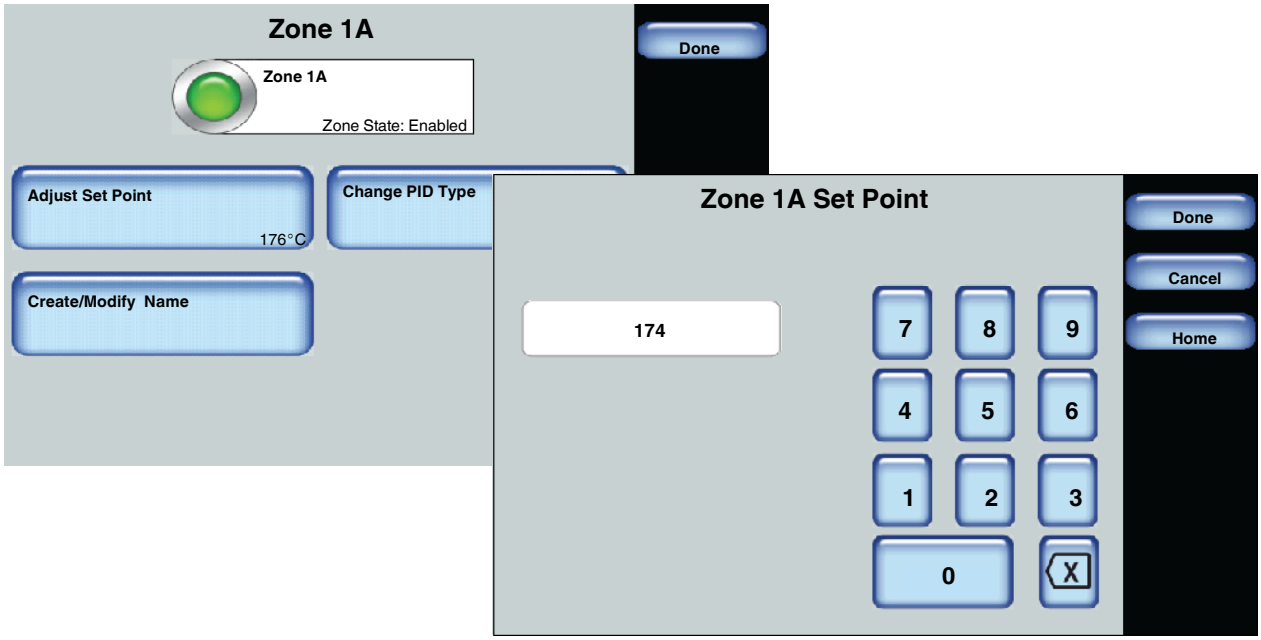
NOTES:

- Enabling or disabling a zone takes effect when you touch **Done**.

- The (internal zone) Platen and at least one external zone must be enabled for normal melter operation.

Modifying Zone Set Point Temperatures

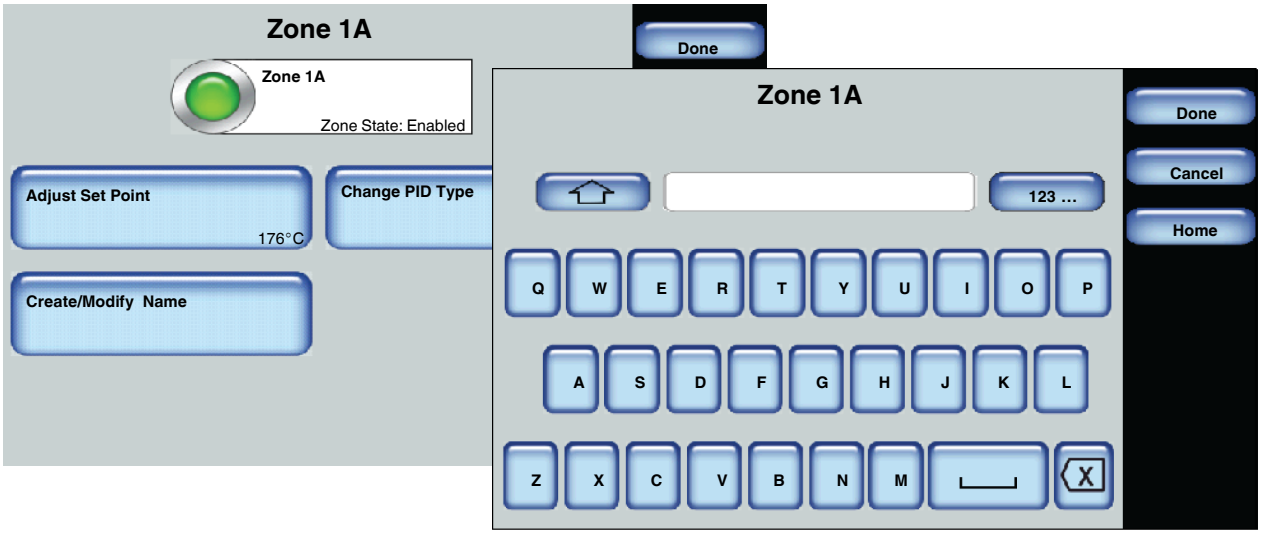
For Melters: 7407039, 7407040, 7407041. 7407042, 7407668 and 7407669			
Zone	**Default**	**Minimum**	**Maximum**
Internal Zone (Platen)	176°C (350°F)	40°C (100°F)	176°C (350°F)
External Zones	176°C (350°F)	40°C (100°F)	176°C (350°F)
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671			
Zone	**Default**	**Minimum**	**Maximum**
Internal Zone (Platen)	232°C (450°F)	40°C (100°F)	232°C (450°F)
External Zones	232°C (450°F)	40°C (100°F)	232°C (450°F)



1. Access the **Home** screen and touch a zone that you want to modify its set point temperature.
2. Touch **Adjust Set Point** and enter the temperature you want for this zone.
3. Touch **Done**.

Modifying External Zone Names

Zone	Default	Minimum	Maximum
Internal Zone	Platen	You cannot modify the name of the Platen	
External Zones	Zone [Number] [Letter]	1 character	10 characters



1. Access the **Home** screen and touch an external zone that you want to modify its name.
2. Touch **Create/Modify Name** and enter the name you want for this zone. The name can be up to 10 characters long. Spaces, dashes, underscore and numbers count as a single character.
3. Do the following to continue. When finished, touch **Done**.

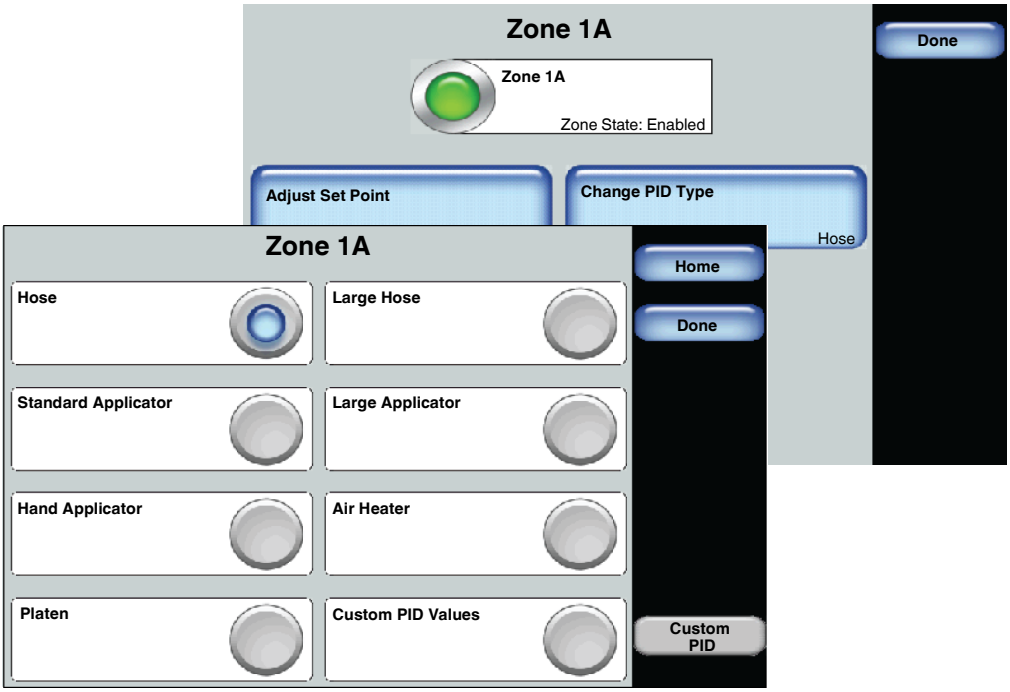
Touch	Description
	Switch between upper and lower case letters.
	Include numeric and extended special characters.
	Delete a character.
	Add space.

Modifying External Zone PID Types

You would only change an external zone PID Type association if you make use of a different hardware component. Selecting the appropriate PID Type provides optimum component performance.

NOTE: The **Home** screen displays the type of applicator this is currently connected to the melter. The graphic does not change based on PID Type selection.

Zone	Default	Options
Internal Zone	You cannot modify the internal zone PID Type association.	
External Zones	• Zones ending with a letter ***A*** are associated with a **Hose** • Zones ending with a letter ***B*** are associated with a **Standard Applicator**	• Hose • Large Hose • Standard applicator • Large applicator • Hand applicator • Air Heaters • Platen • Custom PID Values



1. Access the **Home** screen and touch the external zone that you want to change its PID type.
2. Touch **Change PID Type** and select the appropriate button corresponding to the installed component for the selected zone.
3. Touch **Done**.

NOTES:

- It is recommended that you power down the melter when you change external zone components.
- You cannot mix handguns and automatic applicators.
- Touch **Custom PID** to enter your own PID values. PID is an acronym for **P**roportional, **I**ntegral, **D**erivative, which is a continuous feedback loop that ensures optimum performance and accuracy. Refer to textbooks or the Internet for *proportional integral derivative* or *PID Control* for additional information

Term	Description
P	Controls how fast the system responds to changes.
I	Controls the offset error between the set point and the actual.
D	Used to optimize the system response - but only if the feedback signal is stable. **Note:** Always leave the Derivative constant set to zero unless the feedback signal is very stable and noise free; otherwise, you may experience unstable system response.

Configuring the Pump

By default, you should be able to Enable/Disable the pump, change its Operation mode (Manual or Gear-to-Line) and adjust its speed (RPM).

Use the **Advanced** pump settings to Calibrate the pump, enable/disable the Auto Pump option, define Low Adhesive Timeout and hand applicator/pump settings. Refer to the next chapter for more information.

Requirements for Running the Pump

The following lists the system requirements before you can run the pump:

- The melter status must indicate **Ready/OK**.
- The pump must be **On**.
- In addition to the Platen, at least one external zone must be enabled.
- The Master Heater Control must indicate **On**.
- The Master Pump Control must indicate **On**.

NOTES:

- The Master Pump and Heater Controls automatically switch **Off**, when the melter is in a Fault condition.
- You must wait until the melter status indicates **Ready\OK** before you can manually or remotely switch **On** the **Pump**.
- Use the ***Auto Pump*** option to automatically switch **On** the **Pump** once the melter status indicates **Ready\OK.**
- The state of a pump is independent of the overall status of the melter.
- Make sure to save your changes to a recipe. Refer to *Managing Recipes* for more information.
- You can make use of standard or hand applicators in **Manual** or **Gear-to-Line** pump operation modes.
- If you connect a standard (automatic) applicator to one external zone and a handgun to a different external zone, regardless of which you connect first, the pump will operate in hand applicator mode. The **Home** screen also displays both zones with a handgun icon,

Basic Pump Configuration

You can do the following tasks:

- Change Operation Modes
- Switch the pump On/Off
- Adjust the speed (RPM) of the pump

The following sections detail each task in greater detail.

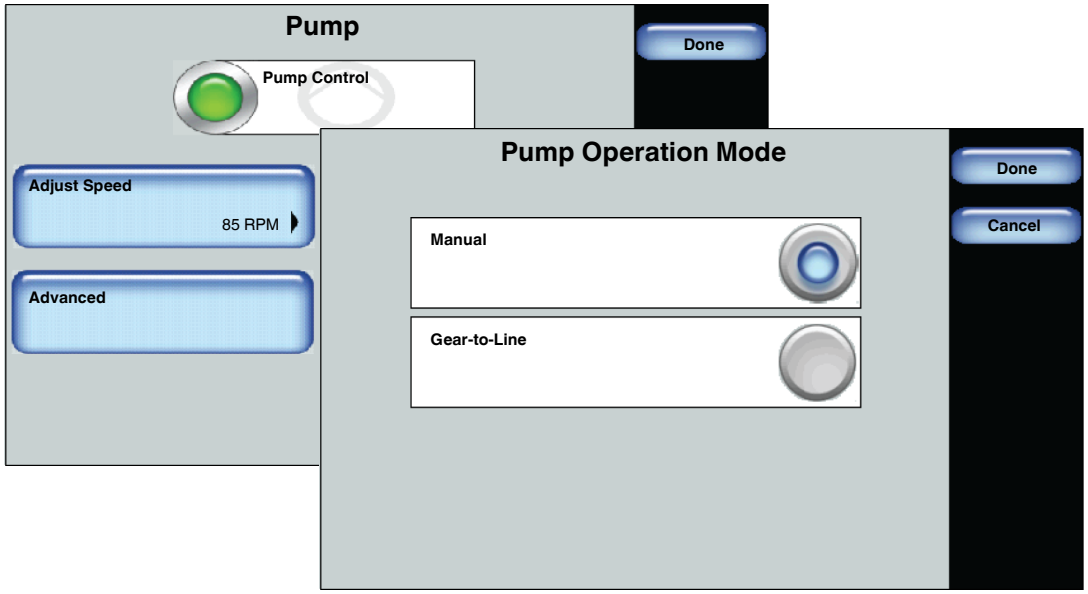
NOTE: Refer to *Advanced Pump Settings* in the next chapter for more information.

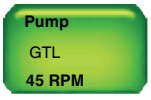
Changing Pump Operation Modes

Notes:

- You can make use of standard or hand applicators in **Manual** or **Gear-to-Line** pump operation modes.
- If you connect a standard (automatic) applicator to one external zone and a hand applicator to a different external zone, regardless of which you connect first, the pump will operate in hand applicator mode. The **Home** screen also displays both zones with a hand applicator icon.

Setting	Default	Option
Operation Mode	Manual	• Manual - Delivers adhesive at a constant speed you manually enter. Use Manual Mode to purge the melter. • Gear-to-Line - Delivers adhesive at a rate proportional to the line speed.



1. Access the **Home** screen, touch 

then the **Advanced** button
2. Touch **Change Operation Mode** and select which pump mode you want to use.

Operation Mode	Description
Manual	Pump runs at a constant Speed.
Gear-to-Line	Pump runs runs at a variable speed based on line speed signal.

3. Touch **Done**.

About Gear-to-Line

Gear-to-Line uses a single set point on a curve for pump control.

Fig 5-3 indicates the following:

- At 80% maximum line speed, the pump set point RPM speed is 60 RPM.
- At 20% minimum line speed, the pump set point RPM speed is 15 RPM.

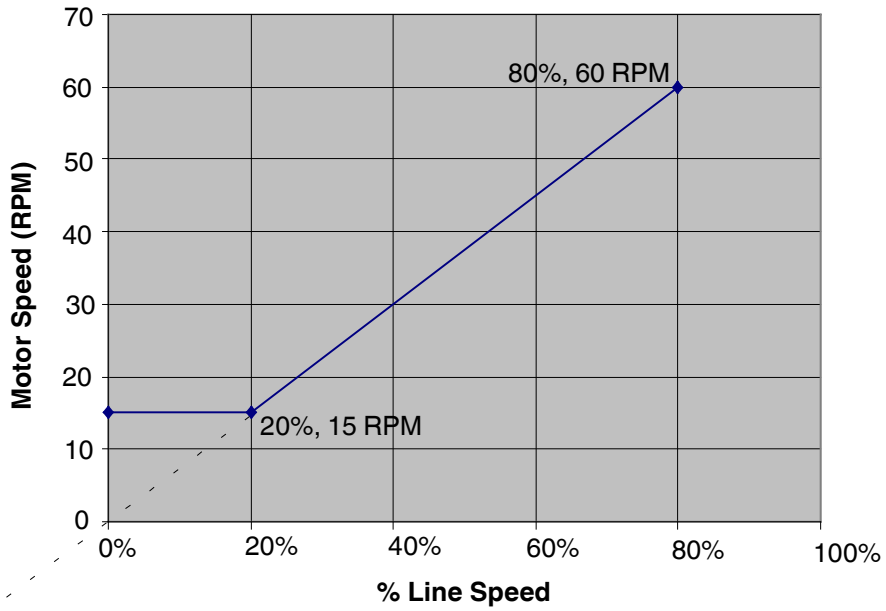
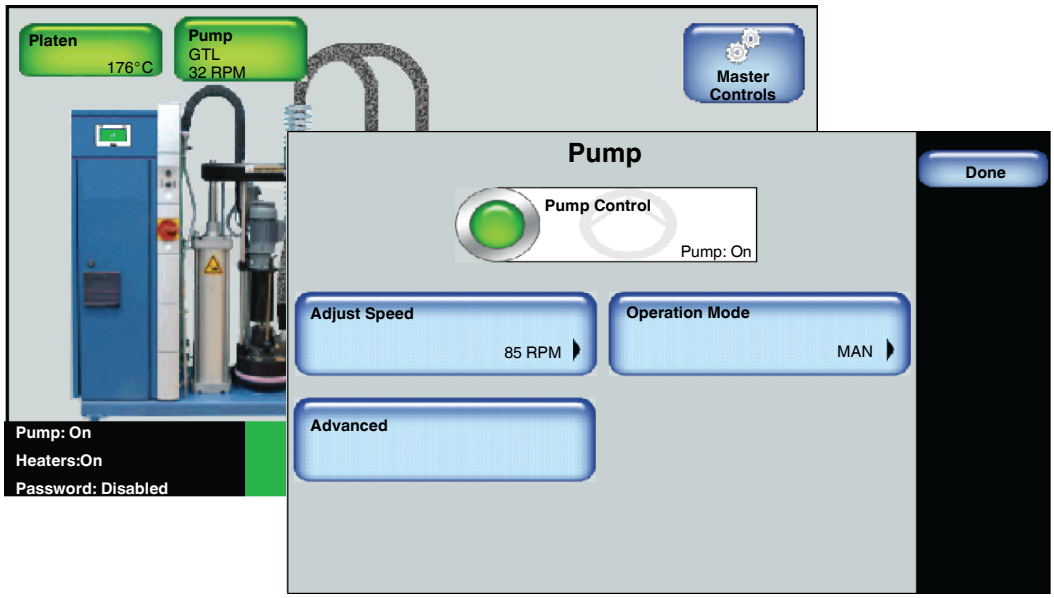


Figure 6-3 Gear-to-Line, single-point on a curve

Switching the Pump On/Off

Setting	Default	Option
Pump Control	Off	• On • Off



1. Access the **Home Display** and touch the a pump.
2. Touch the **Pump Control** button to switch the Pump On/Off.

Button	Color	Description
	Green	On
	White	Off
	Orange	Auto Pump enabled
	Half green Half white	• Pump Configured for remote control • Pump operating with a handgun

NOTE: Changes take effect when you touch **Done**.

Adjusting Pump Speed (RPM)

You can adjust the speed (RPM) of the pump whether it is configured for Manual or Gear-to-Line pump operation.

1. Access the **Home** screen, then touch the **Pump.**
2. Touch **Adjust Speed** and enter the required information.
   - Refer to Figure 6-4
   - Refer to Figure 6-5
3. Touch **Done**.

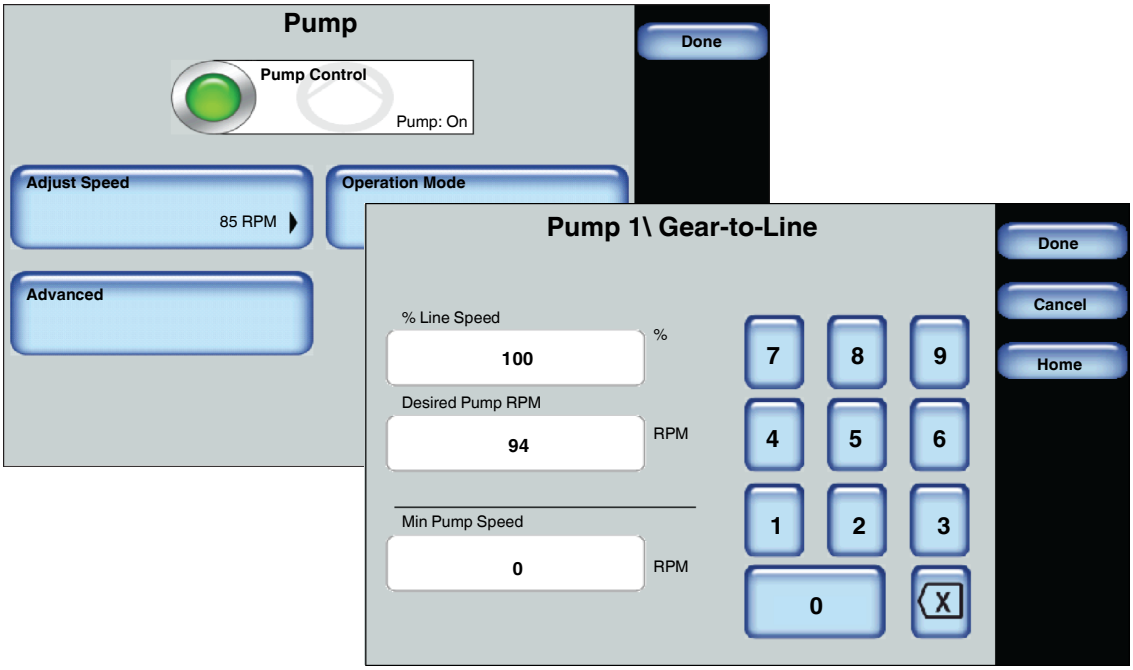


Figure 6-4 Configuring and adjusting Gear-to-Line mode

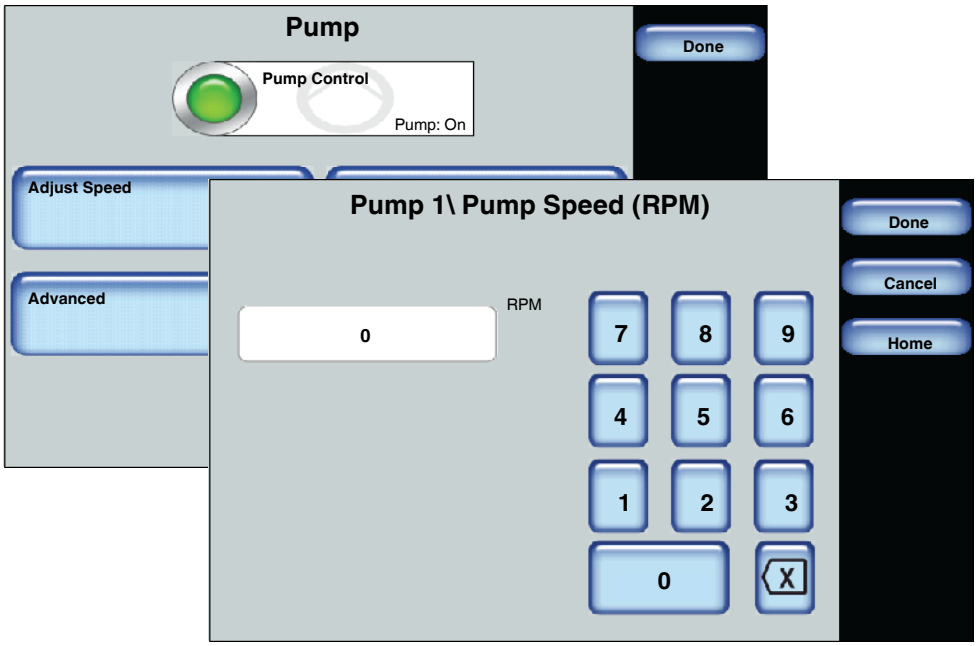


Figure 6-5 Configuring and adjusting Manual mode

Section 7

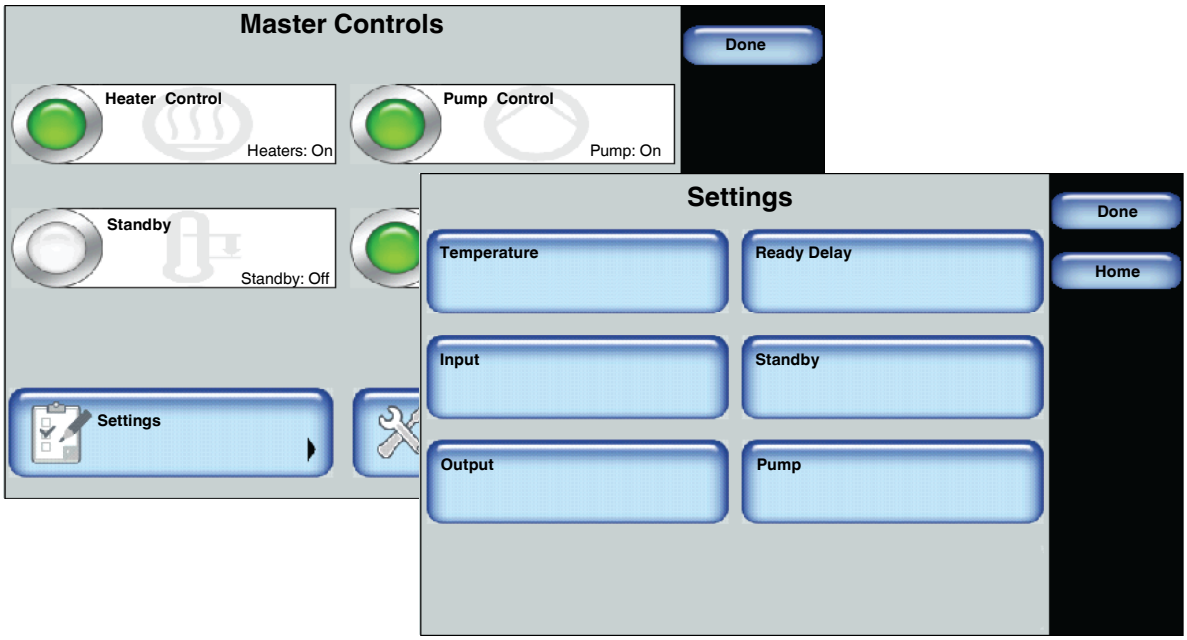
Advanced Software Melter Configuration

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Overview

The melter is shipped from the factory with most temperature, pump and melter (system) settings pre-configured and ready to use. However, there are some settings that you must configure and fine-tune to best fit your manufacturing process.

Accessing the Settings Screen



- From the **Home Display** touch 

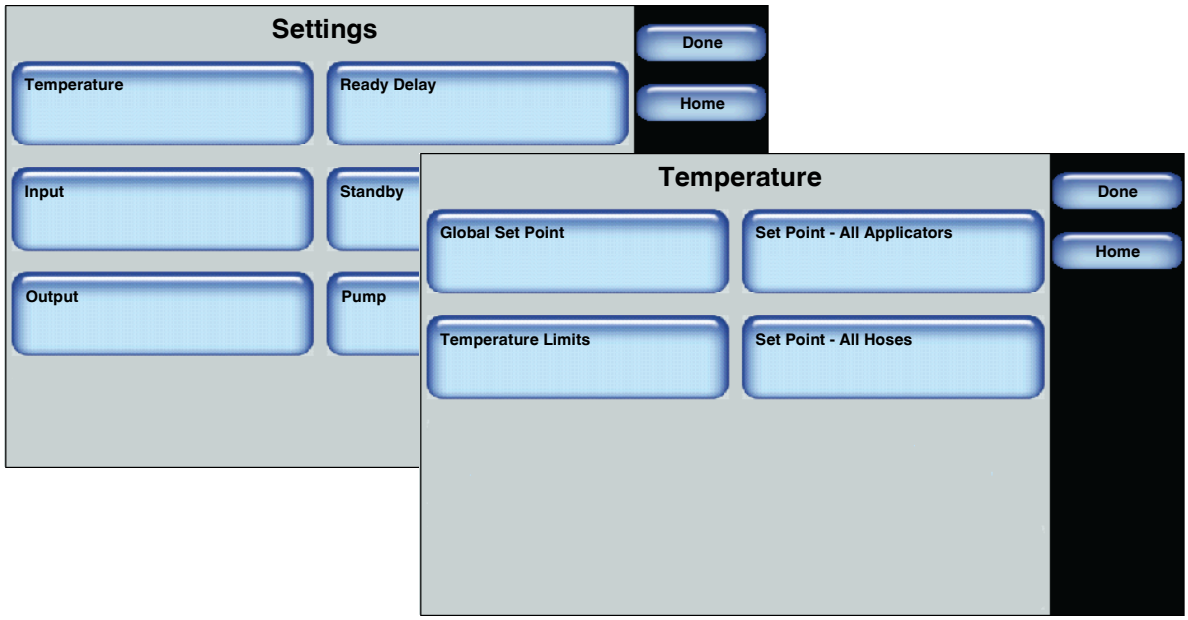
then touch **Settings**.

Advanced Temperature Settings

The following sections detail the following:

- Defining a global set point temperature (all zones)
- Defining over and under temperature limits
- Defining a set point temperature only for all hoses
- Defining a set point temperature only for all applicators

Accessing Temperature Settings



1. From the **Home Display** touch 

2. Touch **Settings**, then **Temperature**.

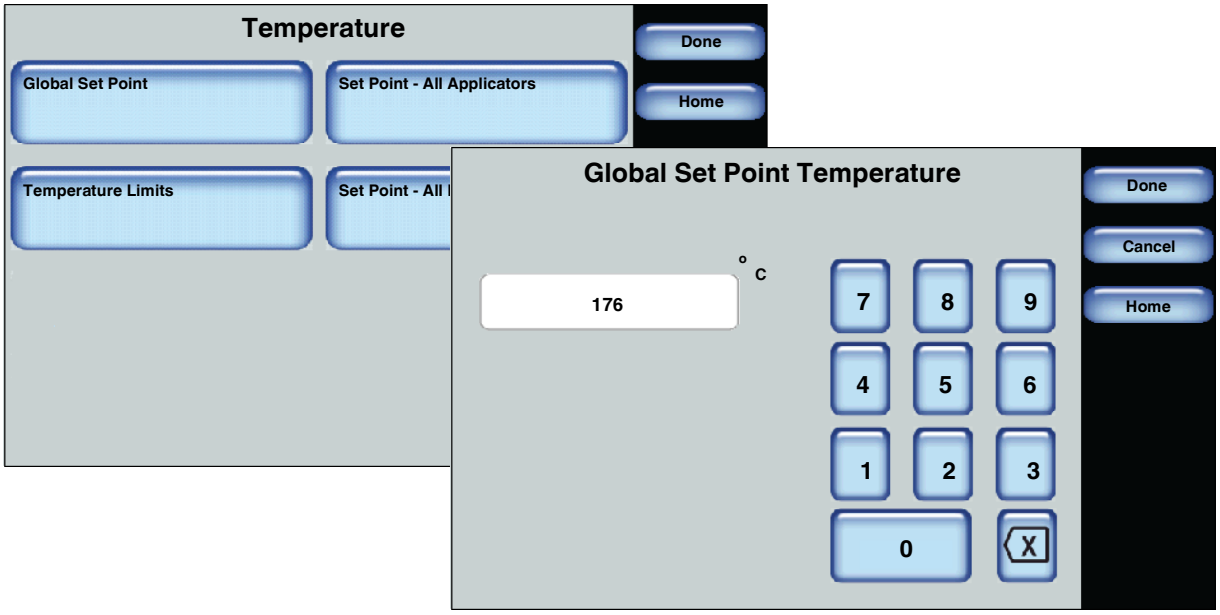
Refer to the following sections for more information.

Defining a Global Set Point Temperature

Use global set point temperature to configure all zones (platen, hoses handguns/applicators with a uniform set point temperature.

For Melters: 7407039, 7407040, 7407041. 7407042, 7407668 and 7407669		
Default	**Minimum**	**Maximum**
176°C (350°F)	40°C (100°F)	176°C (350°F)
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671		
Default	**Minimum**	**Maximum**
232°C (450°F)	40°C (100°F)	232°C (450°F)

NOTE: Defining a global set point temperature enables previously disabled zones.

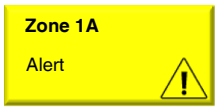


1. From the **Home Display** touch
2. Touch **Settings**, then **Temperature**.
3. Touch **Global Set Point** and enter the global set point temperature you want for all available zones.
4. Touch **Done**.

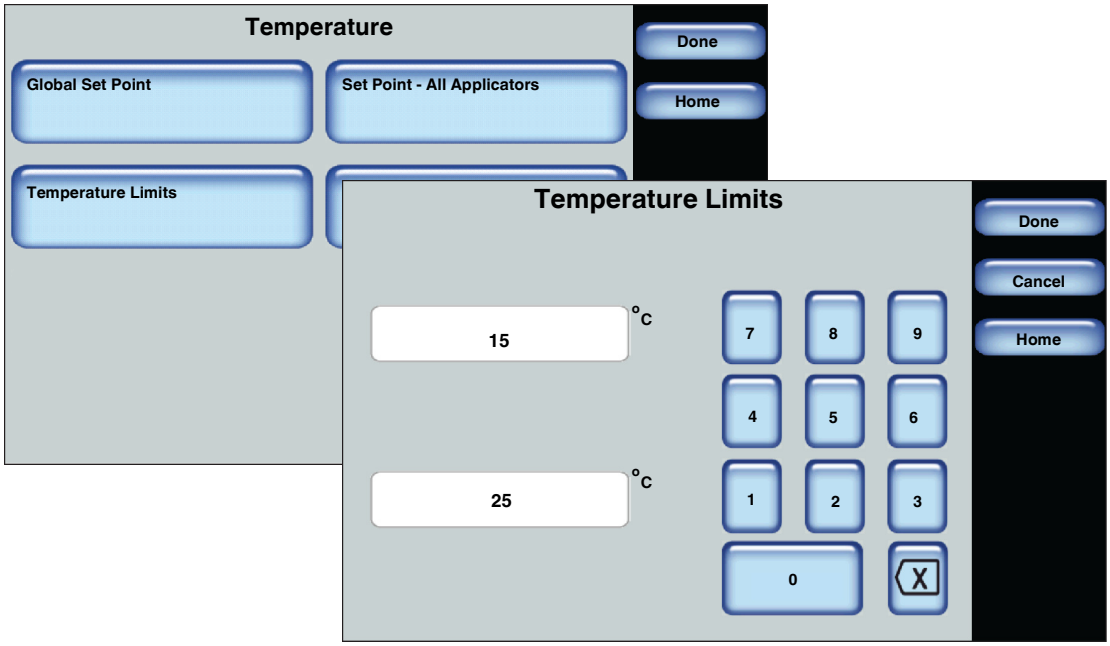
Defining Temperature Limits

Use Temperature Limits to define the number of degrees a zone can increase or decrease from its assigned set point temperature before a temperature alert\fault occurs.

Setting	Default	Minimum	Maximum
Over Temperature	15°C (25°F)	5°C (10°F)	60°C (110°F)
Under Temperature	25°C (50°F)		



NOTE: The zone itself changes to yellow If you do not resolve the over\under alert condition within two minutes of it being detected, the Alert changes to a Fault condition, causing both Heater and Pump Controls to automatically switch Off.



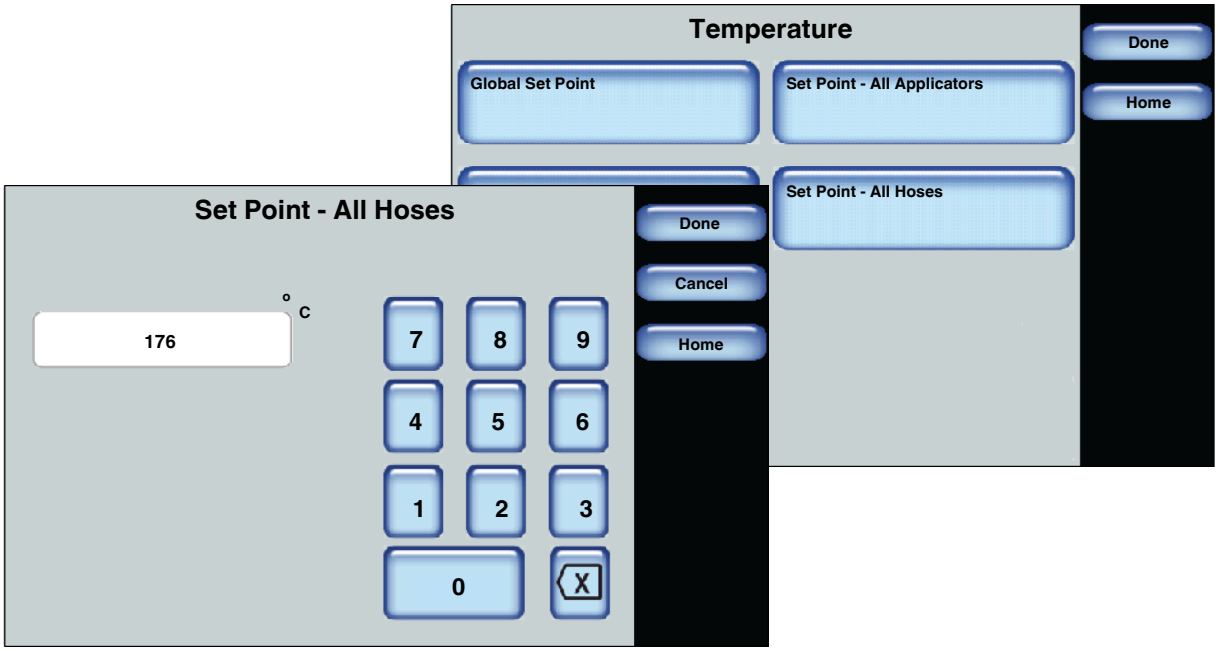
1. From the **Home Display** touch
2. Touch **Settings**, then **Temperature**.
3. Touch **Temperature Limits** and enter the *Over* and *Under* temperature thresholds you want to enforce.
4. Touch **Done**.

Defining a Global Set Point Temperature for All Hoses

Use global set point temperature to configure only the hoses with a uniform set point temperature.

For Melters: 7407039, 7407040, 7407041. 7407042, 7407668 and 7407669		
Default	**Minimum**	**Maximum**
176°C (350°F)	40°C (100°F)	176°C (350°F)
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671		
Default	**Minimum**	**Maximum**
232°C (450°F)	40°C (100°F)	232°C (450°F)

NOTE: Defining a global set point temperature enables previously disabled zones.



1. From the **Home Display** touch 

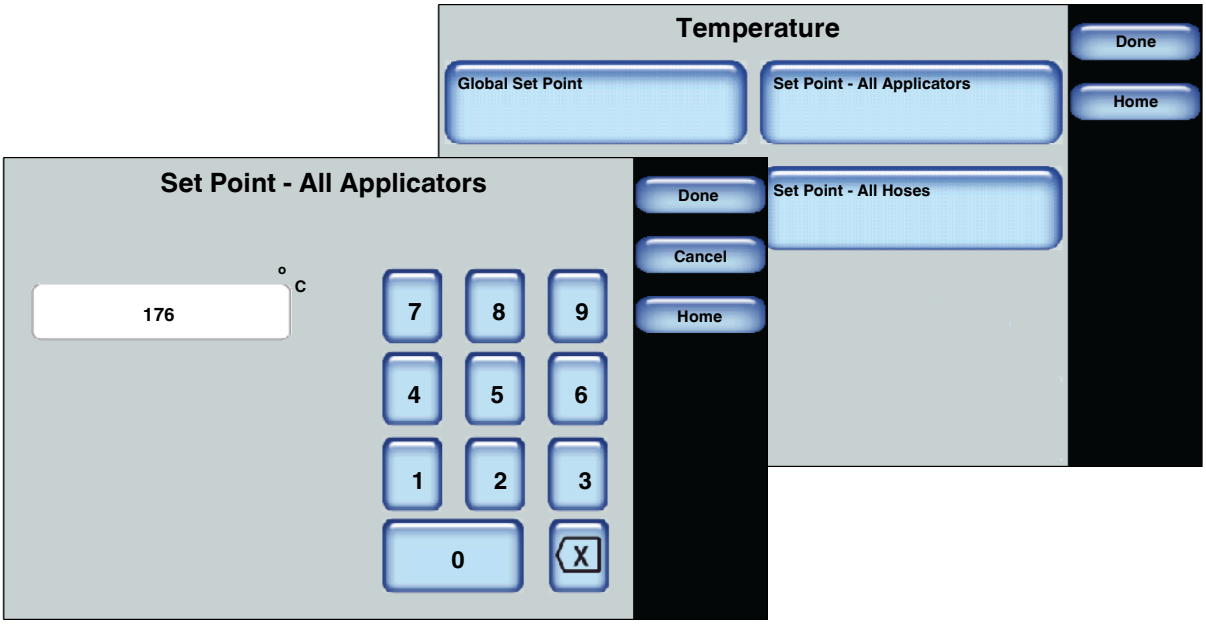
2. Touch **Settings**, then **Temperature**.
3. Touch **Set Point - All Hoses** and enter the set point temperature you want for all available hoses.
4. Touch **Done**.

Defining a Global Set Point Temperature for All Applicators

Use global set point temperature to configure only the applicators with a uniform set point temperature.

For Melters: 7407039, 7407040, 7407041. 7407042, 7407668 and 7407669		
Default	**Minimum**	**Maximum**
176°C (350°F)	40°C (100°F)	176°C (350°F)
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671		
Default	**Minimum**	**Maximum**
232°C (450°F)	40°C (100°F)	232°C (450°F)

NOTE: Defining a global set point temperature enables previously disabled zones.



1. From the **Home Display** touch 

2. Touch **Settings**, then **Temperature**.
3. Touch **Set Point - All Applicators** and enter the set point temperature you want for all available applicators.
4. Touch **Done**.

Defining Ready Delay Settings

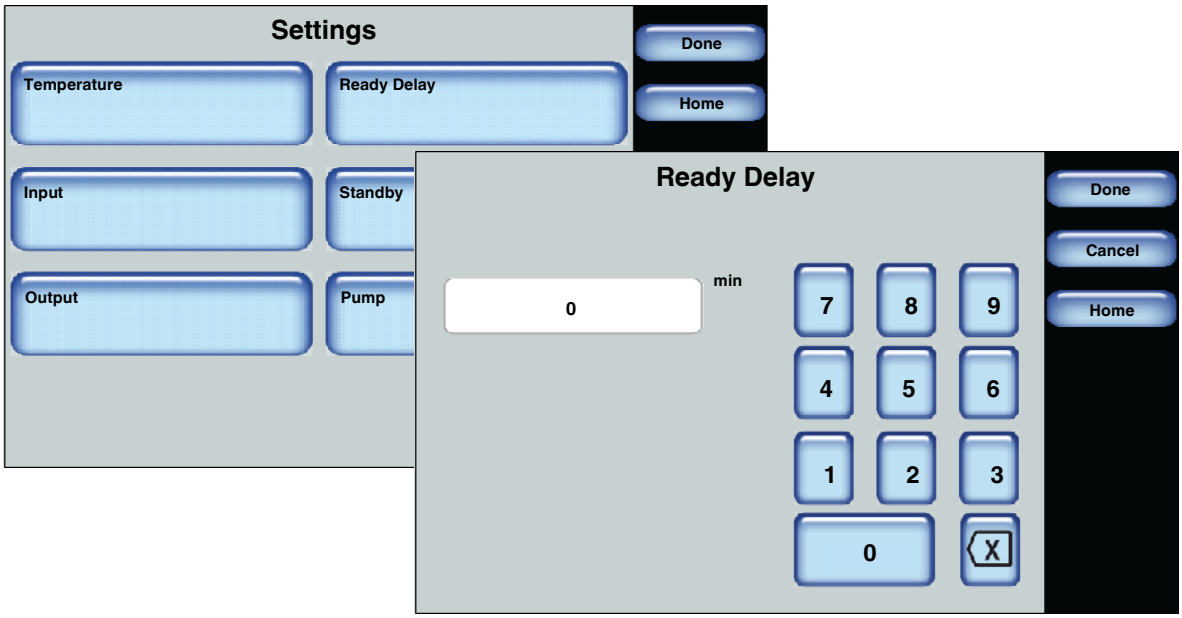
Use Ready Delay to define the amount of time you want to elapse after all of zones have reached their set point temperatures before the melter **Ready\OK** status appears.

Default	Minimum	Maximum
0 (Zero) minutes	0 (Zero) minutes	60 minutes

NOTE: The ready delay time only functions when the temperature of the platen, at the time the melter is turned on, is more than 27 °C (50 °F) from its set point temperature.

NOTE: The ready delay time begins when all components are within 3 °C (5 °F) of their respective set point temperatures.

Accessing Ready Delay Settings



1. From the **Home Display** touch
2. Touch **Settings**, then **Ready Delay**.
3. Enter the number of minutes you want to delay the *Ready\OK* melter status.
4. Touch **Done**.

Defining Standby Settings Settings

Use the standby option to reduce the set point temperature of all heated zones (platen, hoses and applicators) while the melter is temporarily not in production, such as during shift changes.

Item	Default
Automatic Standby	Disabled
Auto Exit standby Time	Disabled

The benefits of making use of the standby option include:

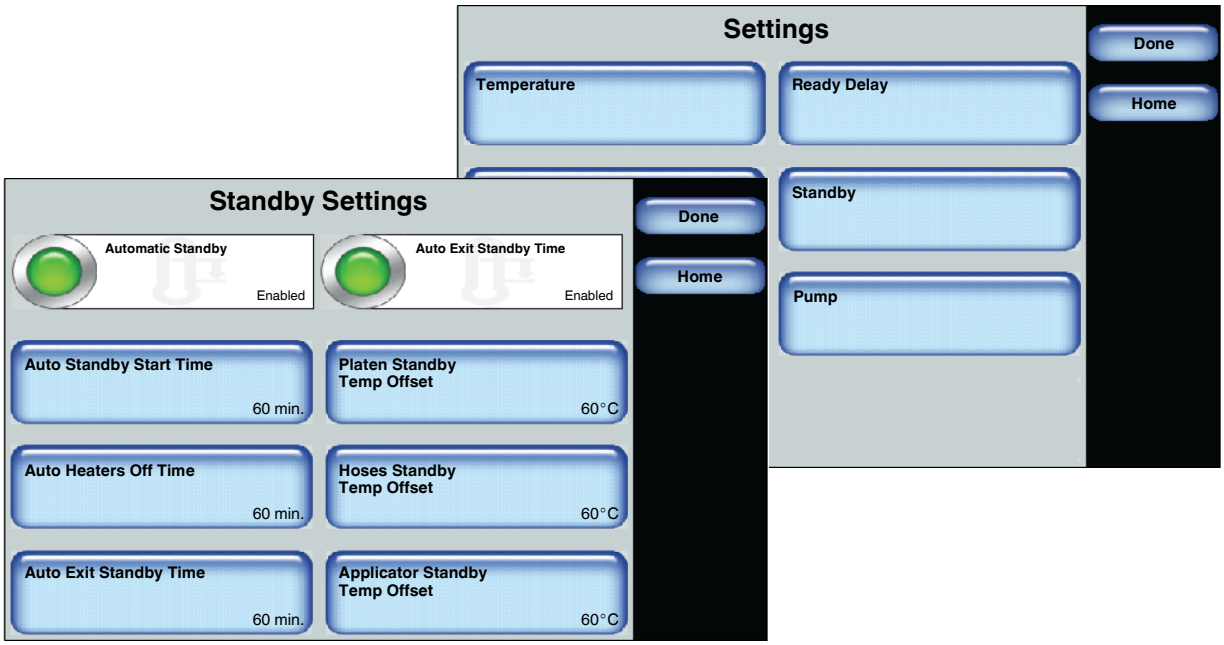
- Allows for quicker ready for production time between shift changes, since the heated zones are by default only within 50 °C (100 °F) of their set point temperatures.
- Conserves power usage.

About Standby Operation Options

There are two methods of Standby operation:

Standby Operation	Description
Automatic	Allows you to define under what melter conditions to automatically enter and exit Standby mode. **NOTE:** Refer to the following section for more information.
Manual	Allows you to manually enter and exit Standby mode.

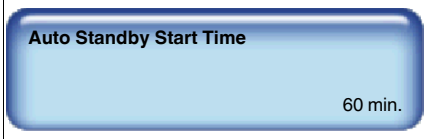
Accessing Standby Settings



1. From the **Home Display** touch 

2. Touch **Settings**, then **Standby**.
3. Do the following to continue.

Touch	Description
	Enables the system the ability to automatically place the melter into standby mode. Default: Disabled
	Enables the system the ability to automatically exit the melter out of standby mode. Default: Disabled

Touch	Description
Note: You must have the **Automatic Standby** option ***Enabled*** to make use of the following:	
	Define the elapsed time of melter inactivity before the melter automatically enters standby mode. Default is 0 (zero) minutes Minimum time is 0 (zero) minutes Maximum time is 60 minutes
	Define the amount of time that must elapse *after* the automatic standby time ends before the heaters automatically switch *Off*. Default is 0 (zero) minutes Minimum time is 0 (zero) minutes Maximum time is 60 minutes
Note: You must have the **Auto Exit Standby Time** option ***Enabled*** to make use of the following:	
	Define the amount of time that must elapse *after* the automatic standby time ends before exiting out of standby mode and into normal operation. Default is 0 (zero) minutes Minimum time is 0 (zero) minutes Maximum time is 60 minutes
Note: The following offset standby temperature settings apply whether the melter was automatically or manually placed into standby mode.	
	Define the number of degrees, from the set point temperature, of the platen that you want to decrease while in standby mode. Default is 60°C (120°F) Minimum temp is 5°C (10°F) Maximum temp is 60°C (120°F)
	Define the number of degrees, from the set point temperature, of all enabled hoses that you want to decrease while in standby mode. Default is 50°C (100°F) Minimum temp is 5°C (10°F) Maximum temp is 60°C (120°F)
	Define the number of degrees, from the set point temperature, of all enabled applicators that you want to decrease while in standby mode. Default is 50°C (100°F) Minimum temp is 5°C (10°F) Maximum temp is 60°C (120°F)

Advanced Pump Settings

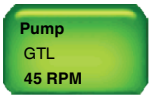
Touch the **Advanced** button to do the following:

- Switch the Auto Pump option On/Off
- Calibrate the pump
- Define container to low timer settings
- When using hand applicators, define pump off delay timing

The following sections detail each procedure in greater detail.

Accessing the Advanced Pump Screen

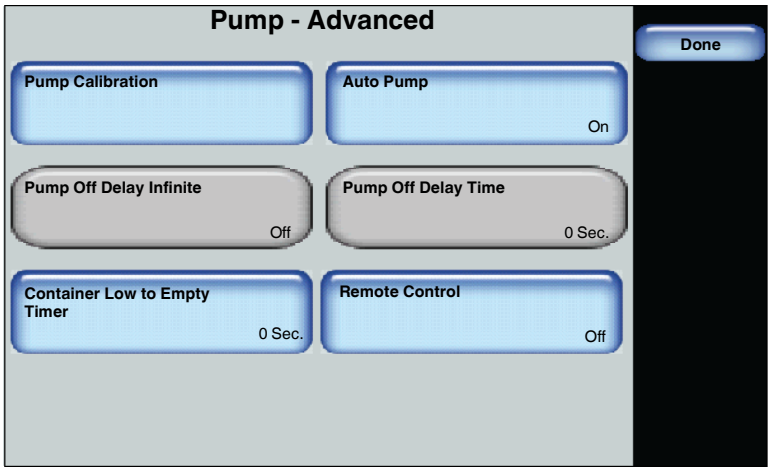
You can access the **Advanced Pump** screen by:

- Touching 

from the **Home** screen then the **Advanced** button**.**
- Touching the touch 

from the **Home** screen**,** then **Settings** I **Pump** I Advanced

NOTE: Refer to *Basic Pump Configuration* in the previous chapter for more information.

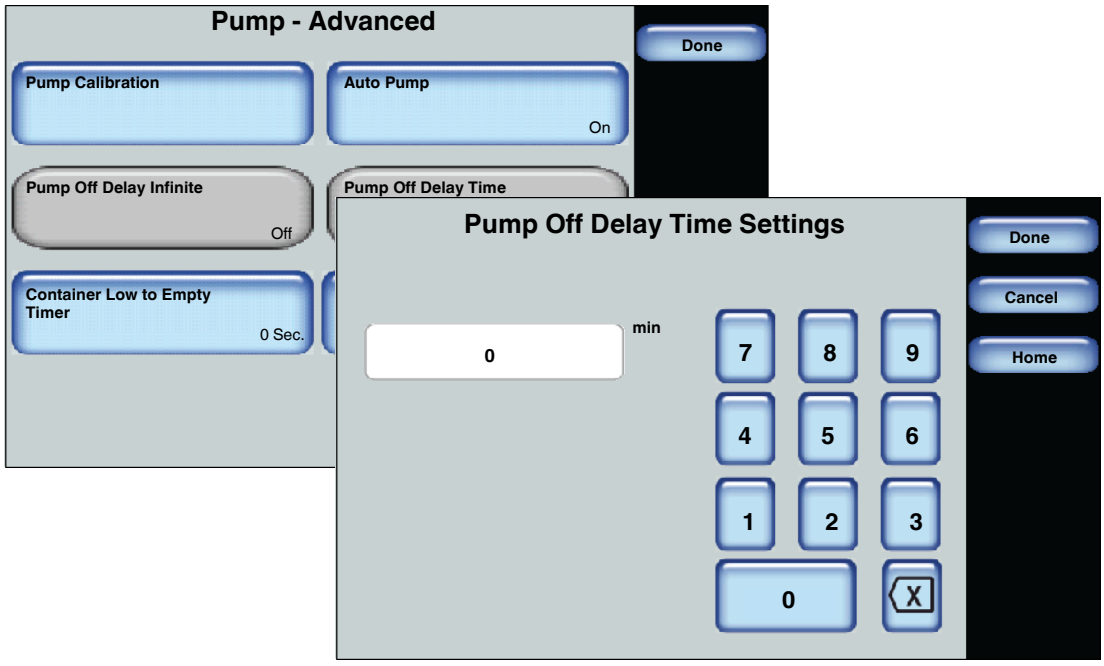


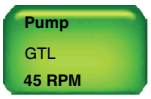
Modifying the Pump and Hand Applicator Usage

By default, when a handgun is connected to an external zone, the pump will only run when the hand applicator trigger is engaged, and when released, the pump will stop running. However, you can configure the pump to continue to run for a predefined amount of time, after the trigger is released or keep the pump running, regardless if the hand applicator trigger is engaged or not.

NOTE: The **Pump Off Delay Infinite** and the **Pump Off Delay Time** buttons are available only when a hand applicator is connected and enabled.

Setting	Default	Options
Pump Off Delay Infinite	Off	• On • Off
Pump Off Delay Time	0 Seconds	• Minimum: 0 Seconds • Maximum: 360 Seconds



1. Access the **Home** screen, touch 

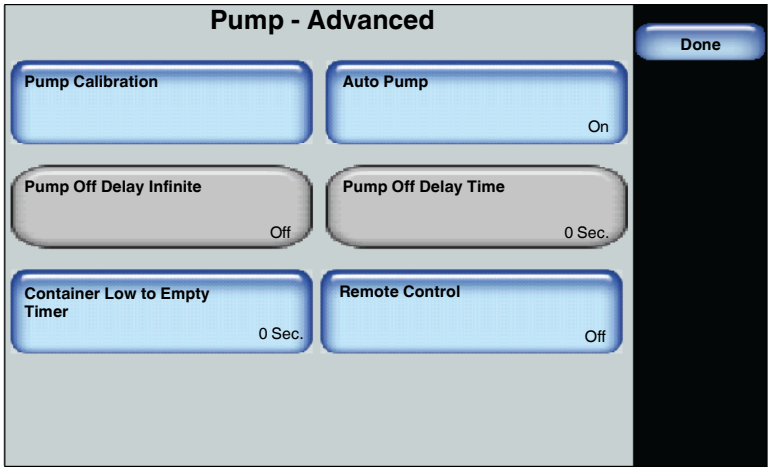
then the **Advanced** button
2. Touch **Pump Off Delay Time** and enter how long you want the pump to continue running after the trigger is released.
3. Touch **Done**.

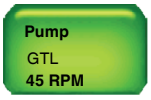
NOTE: Touch the **Pump Off Delay Infinite** button located on the Pump Advanced screen to prevent the pump from switching **Off** when you release the trigger.

Using the Auto Pump Option

The Auto Pump option allows you to touch the **Pump** button at any time while the melter is heating up to normal operation temperature, thereby allowing the Pump to automatically start when the melter status indicates **Ready/OK**.

Setting	Default	Options
Auto Pump	Off	• On • Off



1. Access the **Home** screen, touch 

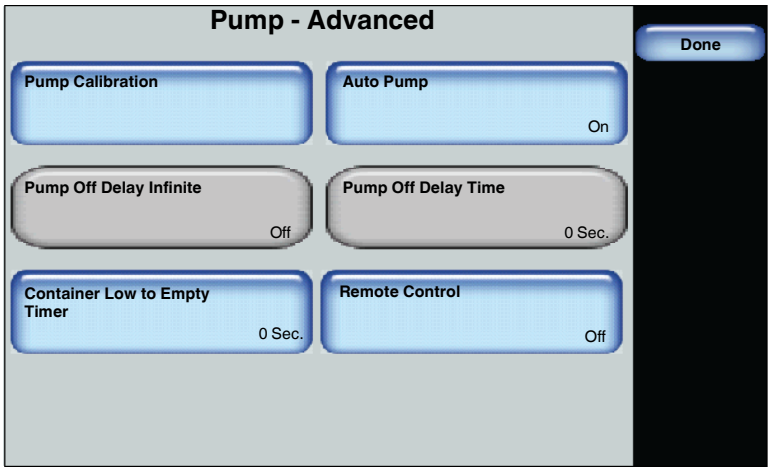
then the **Advanced** button
2. Touch **Auto Pump** to switch this option On or Off.
3. Touch **Done**.

NOTE: The **Pump Control** button changes to the following  (light orange) indicating the **Auto Pump** option is switched On.

Modifying the Low to Empty Container Timer

You can configure the melter to switch the pump Off, after a predefined number of seconds when the **Low Level** indicator appears.

Setting	Default	Options
Container Low to Empty Timer	0 Seconds	• Minimum: 0 Seconds • Maximum: 120 Seconds



1. Access the **Home** screen, touch 

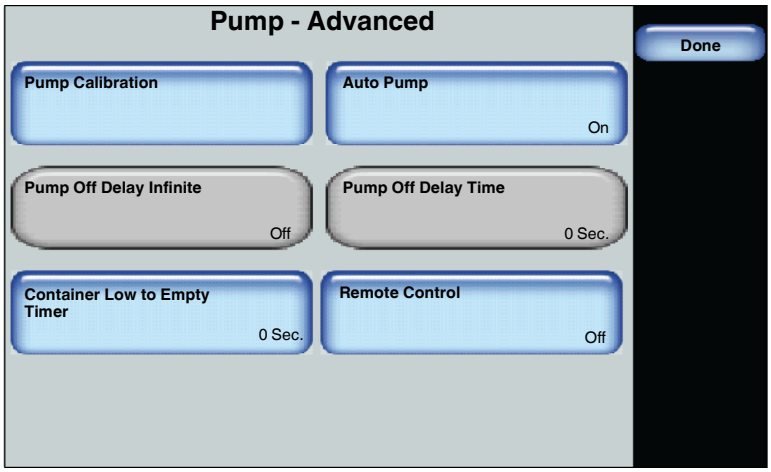
then the **Advanced** button
2. Touch **Container Low to Empty Timer** and the number of seconds you want to continue production before switching the pump Off.
3. Touch **Done**.

NOTE: When the melter detects a Low Level, the following melter status appears:

When time elapses, the pump switches off, and although the heaters remain On, the Platen and all enabled external zones cool to their Standby temperatures.

Defining Pump Remote Control

Use pump remote control to manipulate the pump from a location other than from the melter itself.



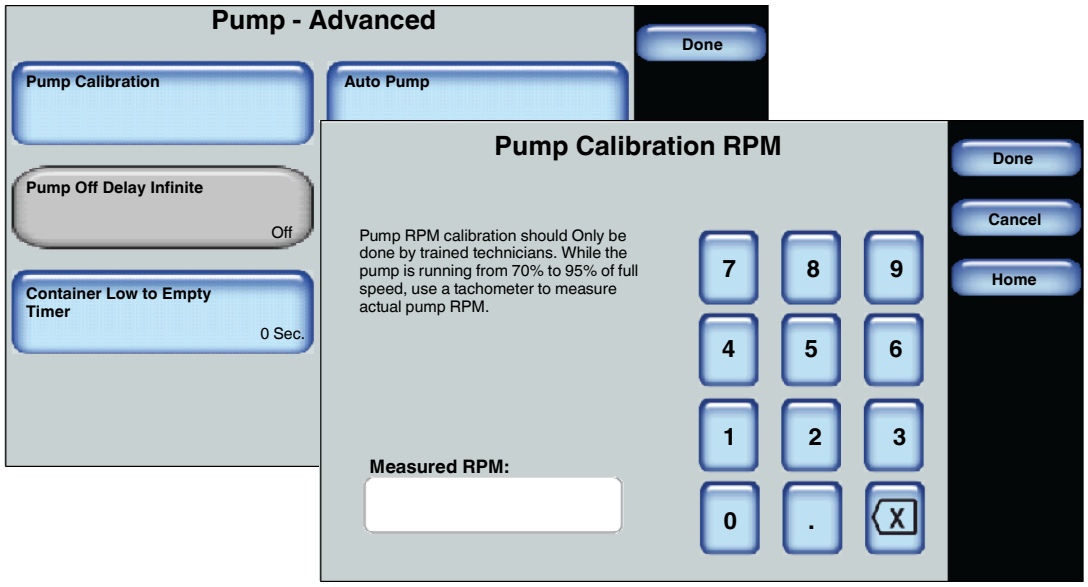
1. From the **Home Display** touch 

2. Touch **Settings**, then **Input**.
3. Touch the Input number corresponding to what you have already hard-wired (step 1) and touch **Pump Control**.
4. Touch **Done**.

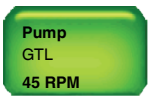
NOTE: The **Pump Control** button changes to  half green, half white, indicating the pump is controlled from a remote location.

Calibrating Pumps

Use Pump Calibration to make sure the displayed pump RPM is accurate.



1. Wire a tachometer to the pump.

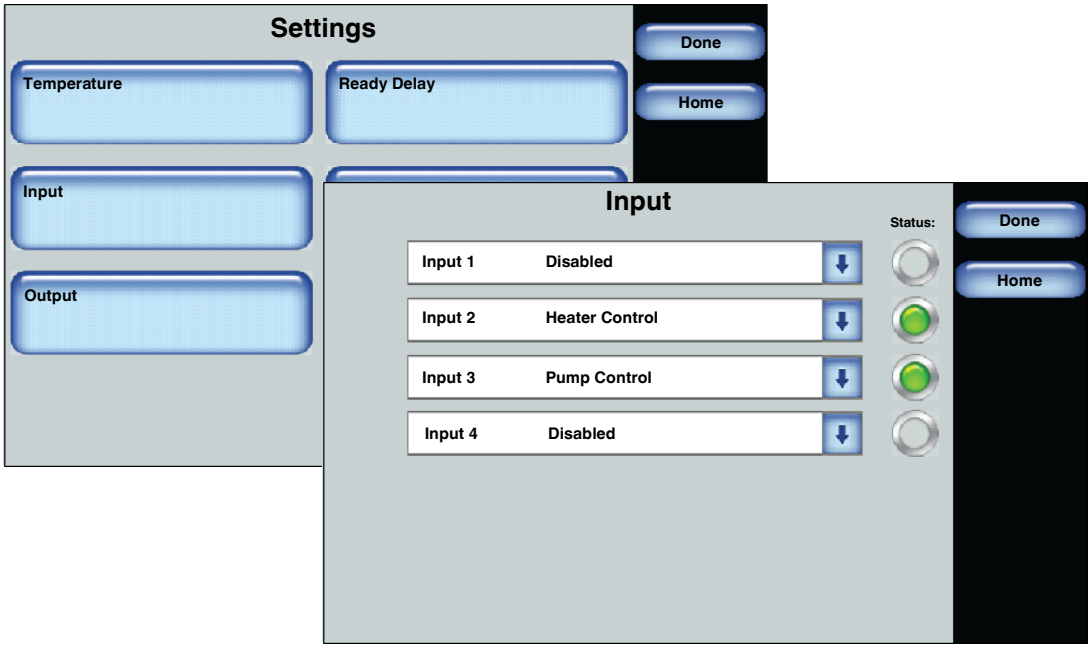
1. Access the **Home** screen, touch 

then the **Advanced** button
2. Touch **Pump Calibration** and run the pump at approximately 7o to 95% of full speed. Enter the RPM displayed on the tachometer.
3. Touch **Done.**

NOTE: Refer to the previous chapter, *Configuring Pumps* for more information.

Advanced Input/Output Settings

NOTE: Refer to *Installation* chapter for wiring instructions.



1. From the **Home Display** touch 

2. Touch **Settings**, then touch **Input or Output**.
3. Touch  for the **Input** or **Output** number you want to modify. Refer to *Default Input Settings* and *Default Output Settings* for more information.
4. Touch **Done**.

NOTE: If you select the Input **External Zone #A/#B** option, the system displays two opposing arrows beneath each other  to indicate that it is controlled from a remote location.

Default Input Settings

By default, all four inputs are pre-configured for you. The following table details the defaults and available input options.

Input #	Default	Available Options
Input 1	Automatic Standby	• Disabled • Heater Control • Standby • Pump (Control) • External Zone# A/B • Automatic Standby (only available for Input 1)
Input 2	Standby	
Input 3	Heater Control	
Input 4	External Zone 1A/1B	

Default Output Settings

By default, all three outputs are pre-configured for you. The following table details the defaults and available output options.

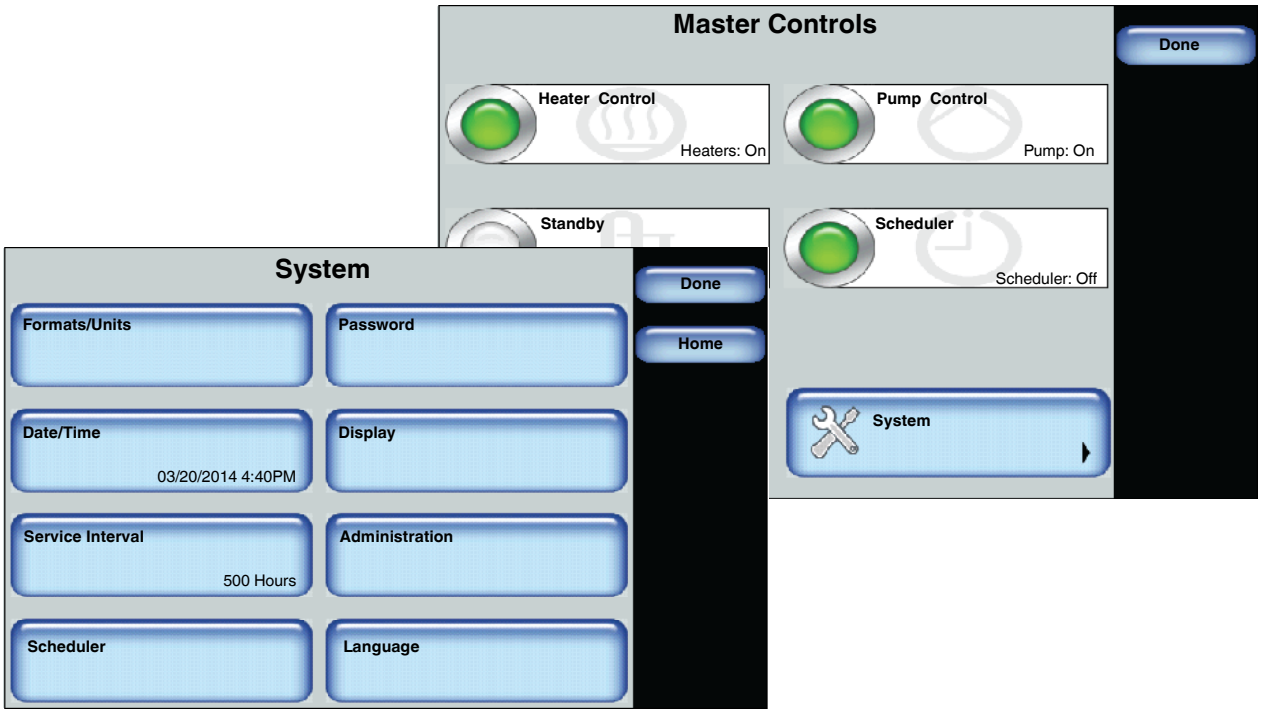
Output #	Default	Available Options
Output 1	Ready	• Disabled • Ready • Ready-Pump On • Fault • Tank Low • Alert • Service Reminder
Output 2	Fault	
Output 3	Tank Low	

System Settings

The following sections detail the following:

- Defining format and units
- Defining the data and time
- Defining service intervals
- Defining language preferences
- Defining display options

Accessing System Settings



1. From the **Home Display** touch 

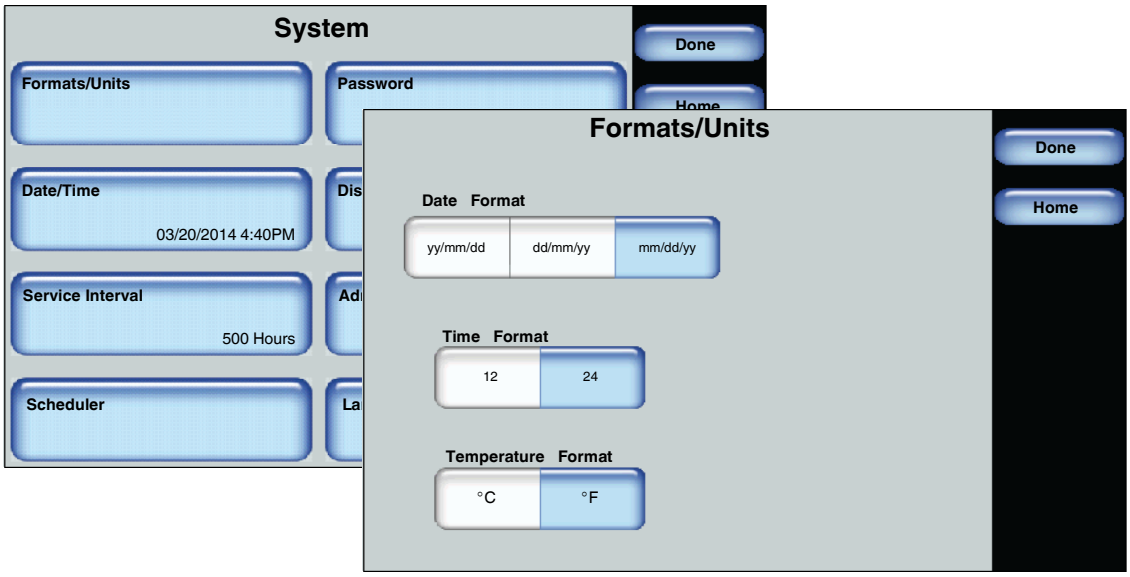
2. Touch **System**.

Refer to the following sections for more information.

Defining Formats and Units

The following table details the default selection for each system-wide format/unit, as well as its available options.

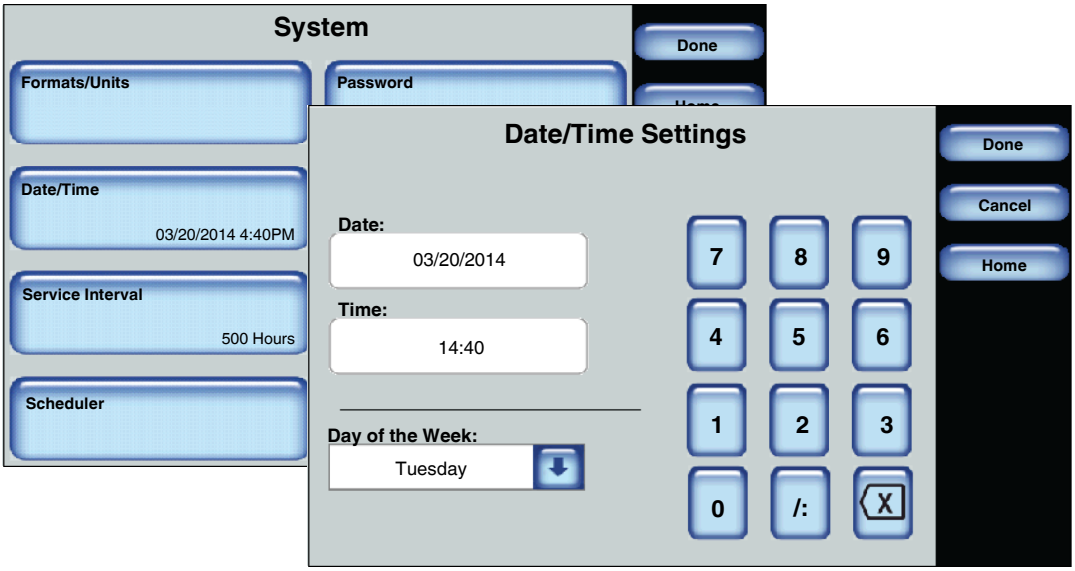
Item	Default	Available Options
Date Format	mm/dd/yy	• yy/mm/dd • dd/mm/yy • mm/dd/yy
Time Format	24	• 12 • 24
Temperature Format	°C	• °C • °F



1. From the **Home Display** touch
2. Touch **System**, then **Formats/Units**.
3. Touch the selection you want to use for each format/unit.
4. Touch **Done**.

Defining the Date and Time

The date and time you define here is used by the system for all time and date related functions, such as the Event Log and Service Intervals.



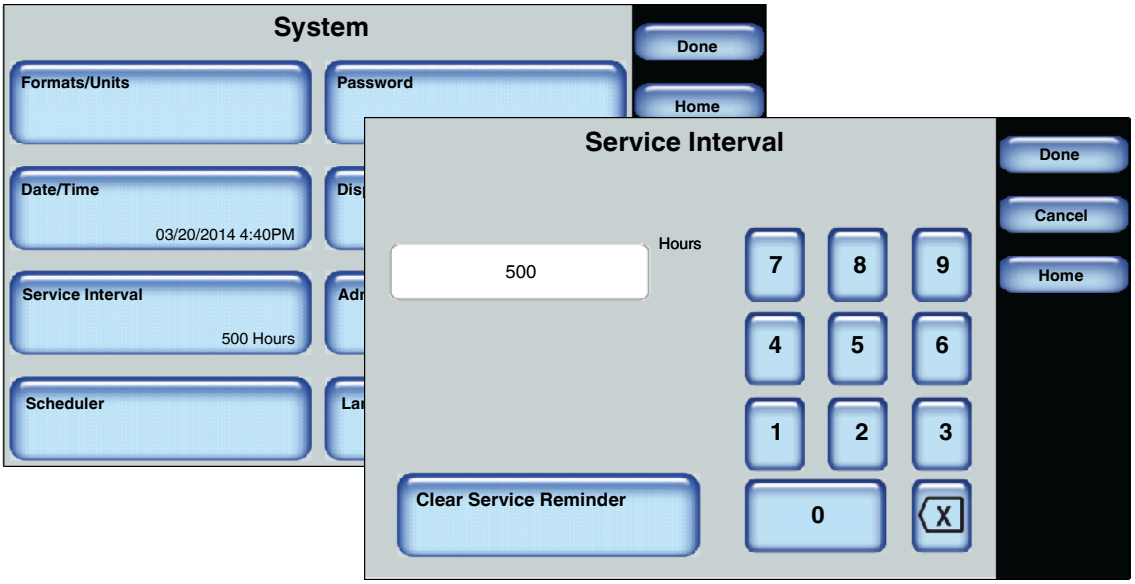
1. From the **Home Display** touch Master Controls.
2. Touch **System**, then **Date/Time**.
3. Enter the current date, time and select the day of the week.
4. Touch **Done**.

Defining Service Intervals

Service interval refers to the number of hours the heaters have been on.

Default	Minimum	Maximum
500 hours	1 hour	8760 hours

NOTE: Refer to *Resetting Service Interval Messages* for more information.



1. From the **Home Display** touch
2. Touch **System**, then **Service Interval**.
3. Enter the number of *heater on hours* after which you want the system to display a service reminder message.
4. Touch **Done**.

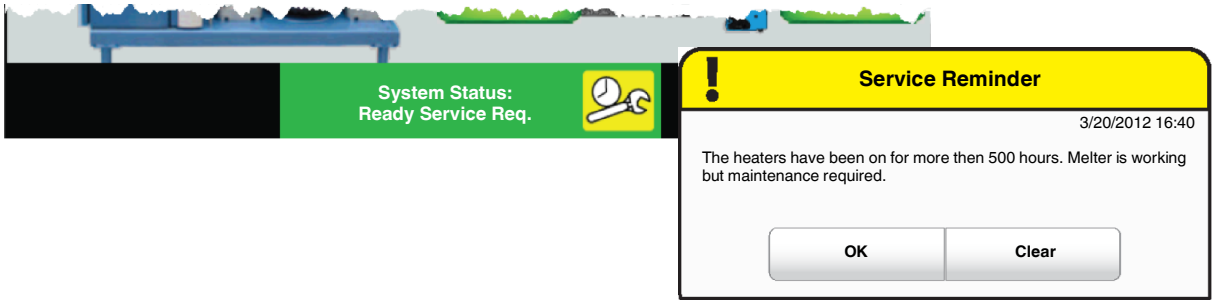
Resetting Service Interval Messages

When the heaters have been on for more than the defined (default 500) hours, a pop-up message appears and the system status indicates **Ready\Service**.

There are two ways to reset the service interval value.

- From the Service Reminder pop-up message
- From the Service Interval screen

From the pop-up message



Touch	Description
OK	Closes the pop-up message, but the service reminder condition still exists. The System Status indicator continues to display the **Ready\Service**.
Clear	Closes the pop-up message, and resets the service reminder counter back to 0 (zero) hours.

From the Service Interval Screen

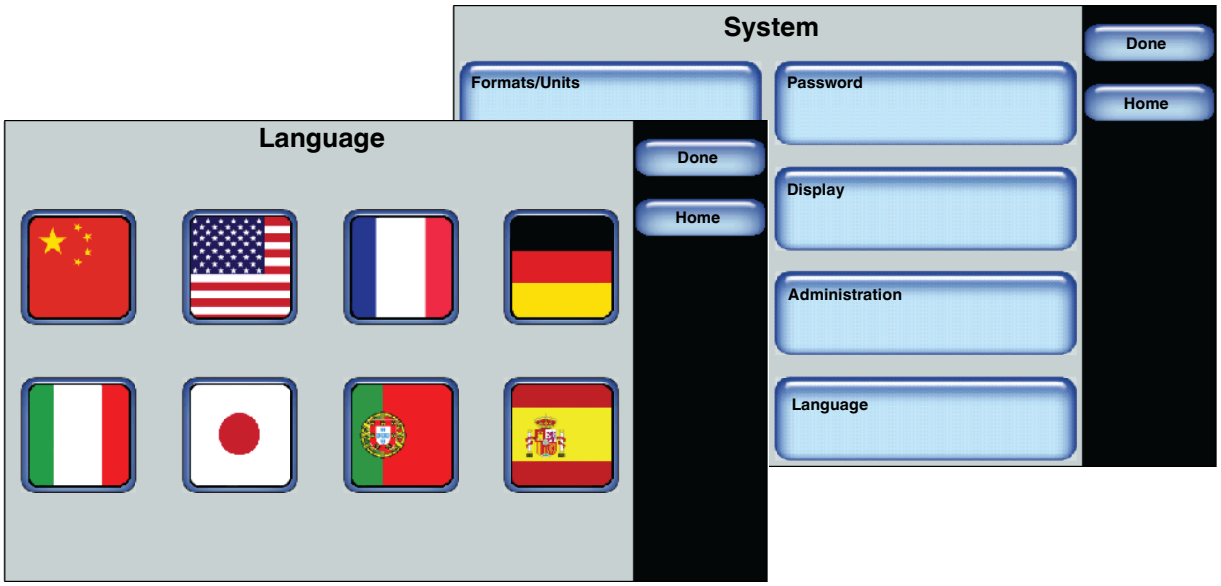
1. From the **Home Display** touch 

2. Touch **System**, then **Service Interval**.
3. Touch **Clear Service Reminder** to reset the service interval counter back to 0 (zero) hours.
4. Touch **Done**.

Defining Language Preference

Select the language you want to use.

Default	Available Options	
English	• Chinese • English • Italian • German	• French • Japanese • Portuguese • Spanish



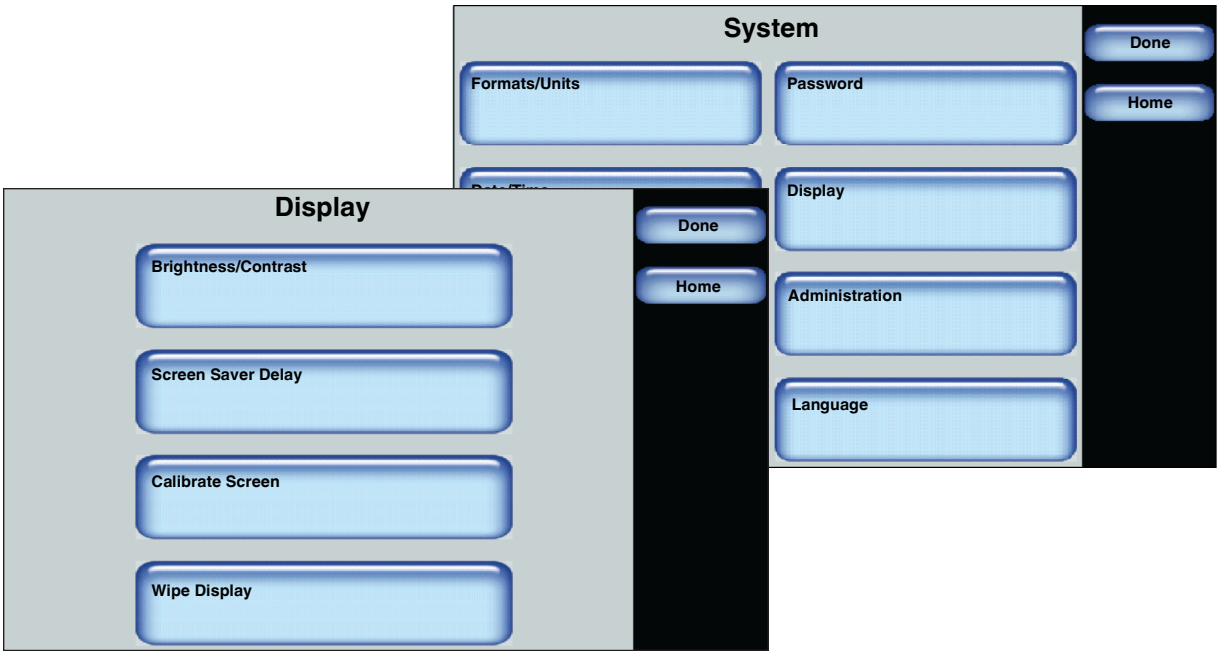
1. From the **Home Display** touch 

2. Touch **System**, then **Language**.
3. Touch the flag representing the language you want to use.
4. Touch **Done**.

Defining Display Settings

The following table details what you can define, along with the default and available options.

Setting	Default	Minimum	Maximum
Brightness/Contrast	75% I 75%	30%	100%
Screen Saver Delay	90 minutes	5 minutes	120 minutes
Calibrate Screen	--	--	--
Wipe Display	30 seconds	--	--



1. From the **Home Display** touch 

2. Touch **System**, then **Display**.

3. Do the following to continue.

Touch	Description
Brightness/Contrast	Enhance the visibility and readability of the touchscreen displays.
Screen Saver Delay	The amount of time (default 5 minutes) of no user interaction with the touchscreen before the screen saver appears. The screen saver only displays the melter status and its corresponding color. To extend the lifespan of the touchscreen itself, the brightness and contrast are reduced from its current settings to 30% Touch anywhere on the screen to access the Operator Display.
Calibrate Screen	Allows you to improve the accuracy of your interaction with the touchscreen. Touch the + symbol to calibrate the touchscreen.
Wipe Display	Locks the screen for 30 seconds, allowing you to clear dust from the touchscreen without touching a button and accidentally changing a setting.

4. Touch **Done.**

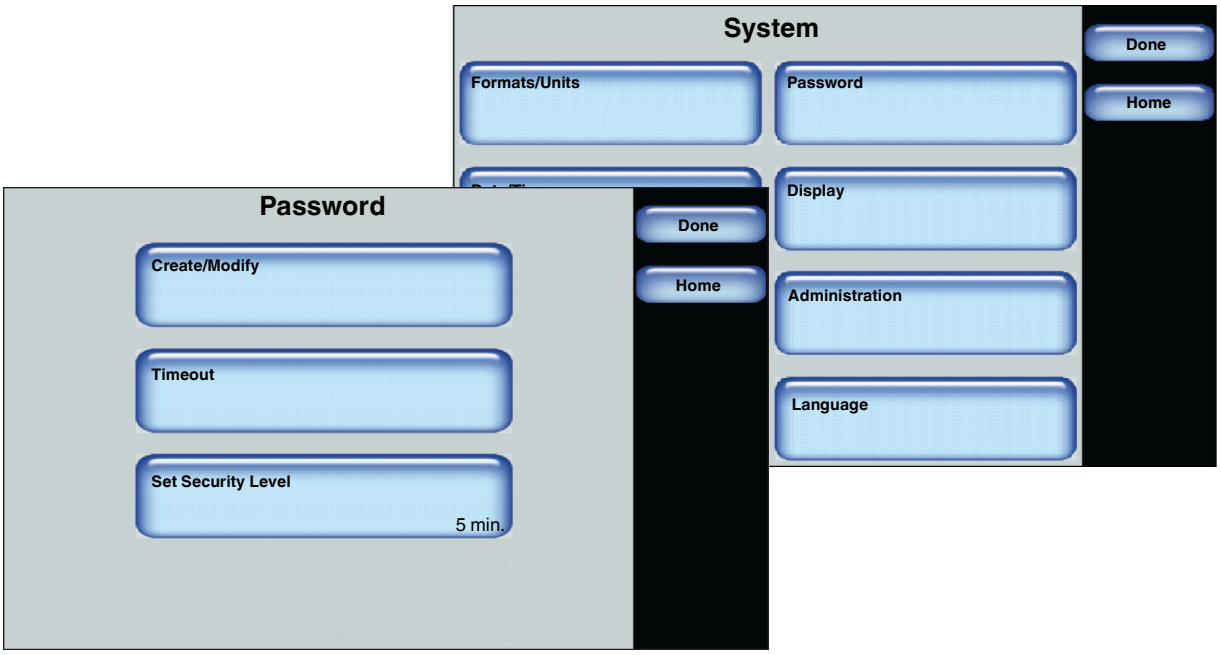
Configuring Password Protection

By default, password protection is disabled.

NOTE: Refer to Table 7-4 for an explanation of each security level.

The following are default password level numeric codes:

Level #	Default Code	Notes
1	1000	• Cannot start with the number 0 (zero). • Can be one up to five numbers long. • The largest 5 digit number is 65535. • Each level must have a unique numeric code.
2	2000	
3	3000	



1. From the **Home Display** touch 

2. Touch **System**, then **Password**.
3. Do the following to continue. When finished, touch **Done**.

Touch	Description
Create/Modify	Modify the default numeric password code for each level.
Timeout	Enter the amount of time (the default is 10 minutes) the selected password protection becomes active after no user interaction with the touchscreen.
Set Security Level	Refer to Table 7-4 for an explanation of each security level.

Table 7-4 *Security level details*

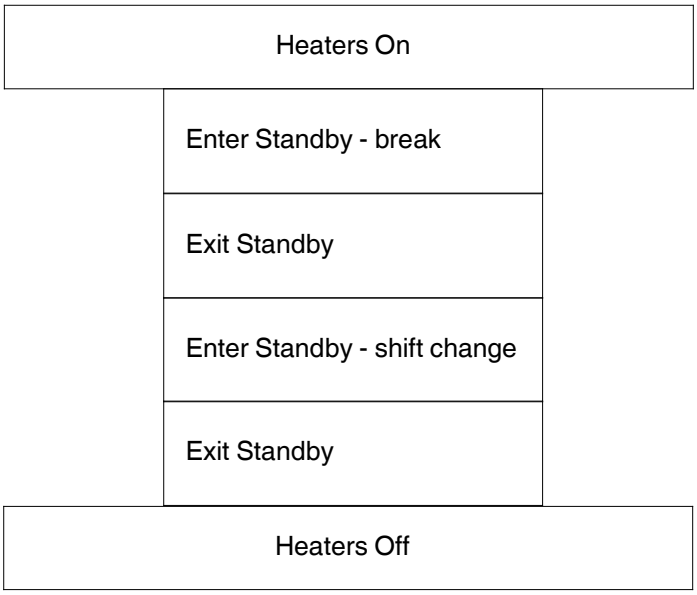
Security Level	Functions Enabled	High	Medium	Low
3	Application names (temperature channels and pumps Controlled system heating rate temperature Switch between °C, °F Switch between bar, psi, kPa Temperature channel settings (PID control mode) Maximum temperature set point Assign standard I/O inputs for application groups Seven-day clock settings: (delete/edit schedule, copy schedule) Motor enables from control panel / control panel AND standard I/O Gear-to-line signal: Analog/frequency, voltage/current Speed control / Line speed for min./max. pump speed/pressure Threshold switch Restore default settings Melter configuration Configuration code input (Local mode / field bus mode) Customer setup (recipes / application names) Service interval System ready-delay setup Password setup			
2	Under-temperature/over-temperature warnings/faults Standby values (setback delta and duration) Automatic enter standby Temperature channel enabled/disabled Changing pump modes (manual and gear-to-line)			
1	Temperature set point Individual motor enable Speed set point Min. and max. pump speed/pressure (in gear-to-line mode)			

NOTE: The table indicates the following:

- High Security includes levels 1, 2 and 3
- Medium Security includes levels 2 and 3
- Low Security includes only level 3

Configuring Scheduled Events

Use the scheduler to time daily heater and standby events. The following figure illustrates a typical daily schedule.



NOTE: About scheduling events:

- Define up to 12 events per day.
- Each day can have its own unique schedule.
- Copy and paste schedules to other days of the week.
- Scheduled events cannot cross over to the next day.

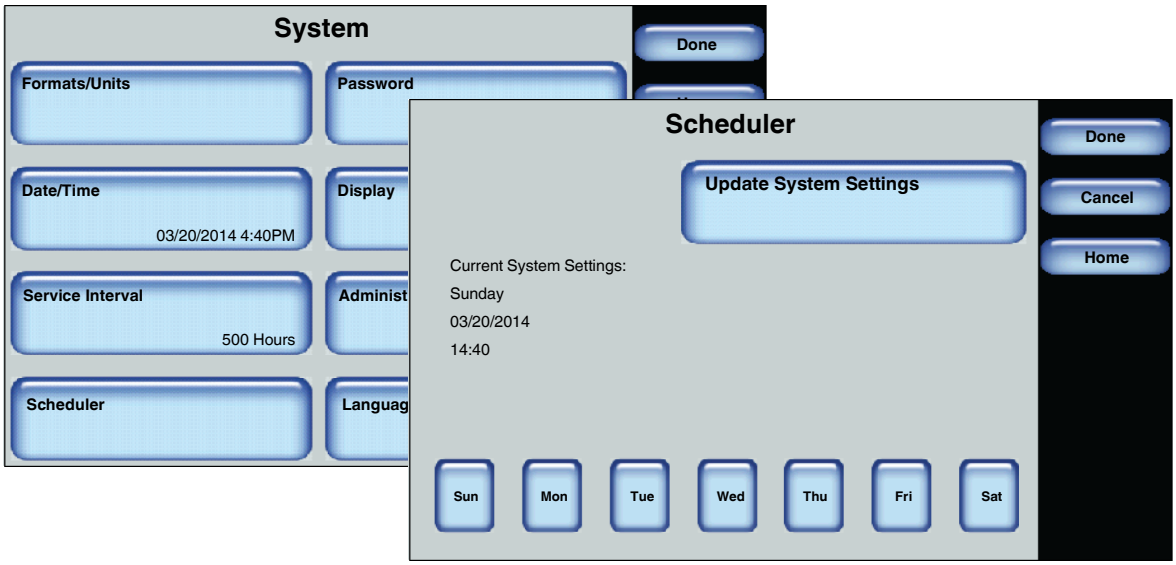
Creating a Schedule of events is a 3-step process

Step 1: Access the Scheduler and verify that the system date, time and day of week are correct.

Step 2: Define the first work day of the week that you want to start scheduling events.

Step 3: Switch On the Scheduler control.

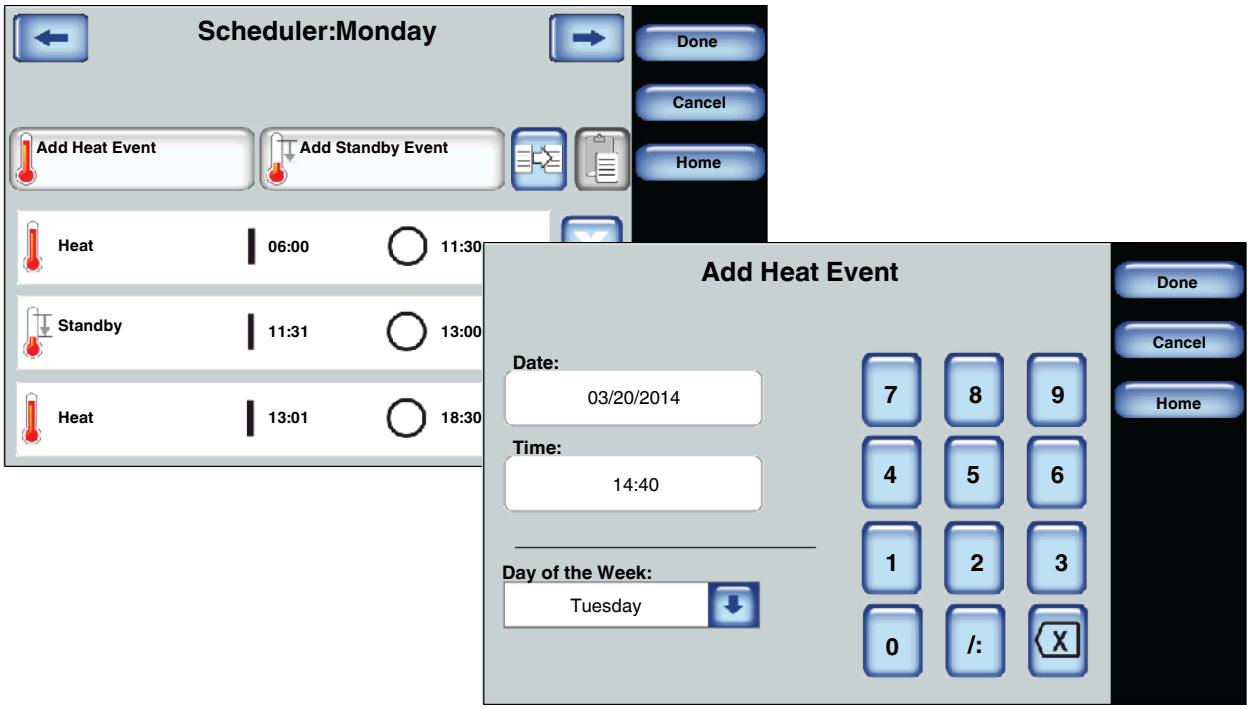
Step 1: Access the Scheduler and verify that the system date, time and day of week are correct



1. From the **Home Display** touch 

2. Touch **System**, then **Scheduler**.
3. Make sure the *Current System Settings* are correct.
   - If the *Day of the Week, Date* and *Time* are incorrect, touch **Update System Settings** and enter the correct information.
4. Touch the day of the week button that you want to schedule events. It is recommended that you start with the first *working* day of the week, for example Monday, and work forward. You can only copy/paste schedules from one day to the next, but not backwards.
5. Proceed to the **step 2**.

Step 2: Define the first work day of the week that you want to start scheduling event



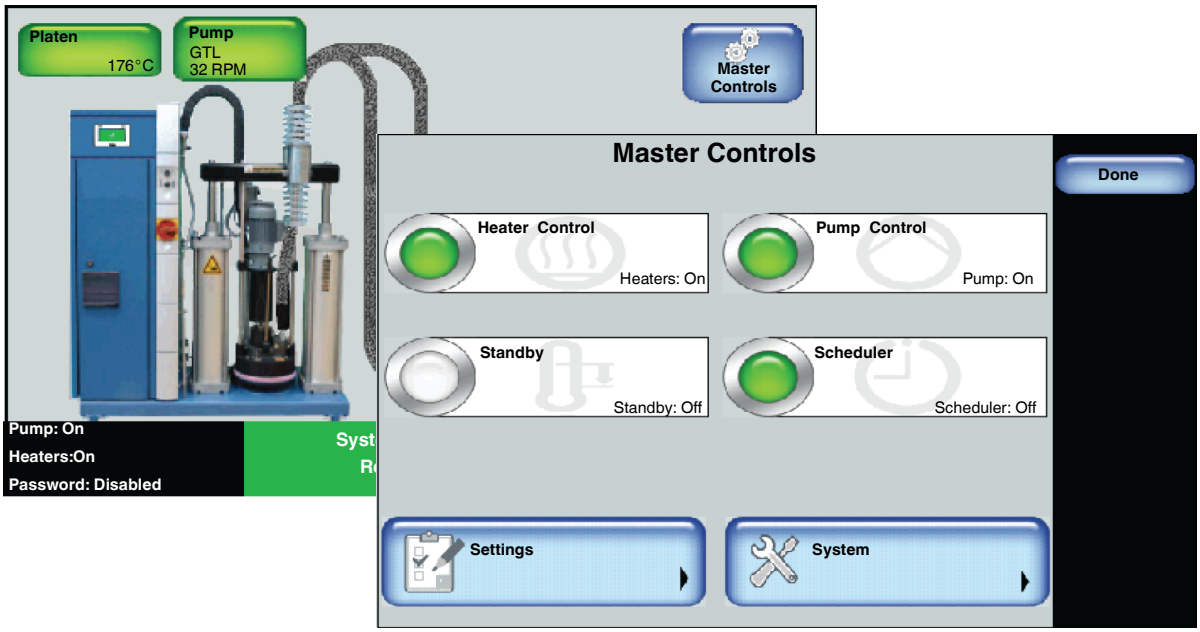
1. Do the following to continue:

Touch	Description
	Enter the time when you want the heaters to switch On and Off. Typically, you would have only one heat event per day.
	Enter the time when you want the system to enter, then exit Standby Mode. You can include multiple Standby events to include lunch breaks, shift changes and so on.
	To remove the event.

2. Do you want to copy this exact schedule to the other days of the week?

If….	Then
Yes	a. Touch  to copy the schedule into memory. b. Touch  to copy the ouch Next or Previous Day**.** c. Touch  to paste the schedule to the day you want. d. Repeat steps **b** and **c** until you are done. Proceed to **Step 3**.
No	a. Touch  to copy the ouch Next or Previous Day**.** b. Touch **Done**. Proceed to **Step 3**

Step 3: Switch On the Master Scheduler Control



1. From the **Home Display** touch 

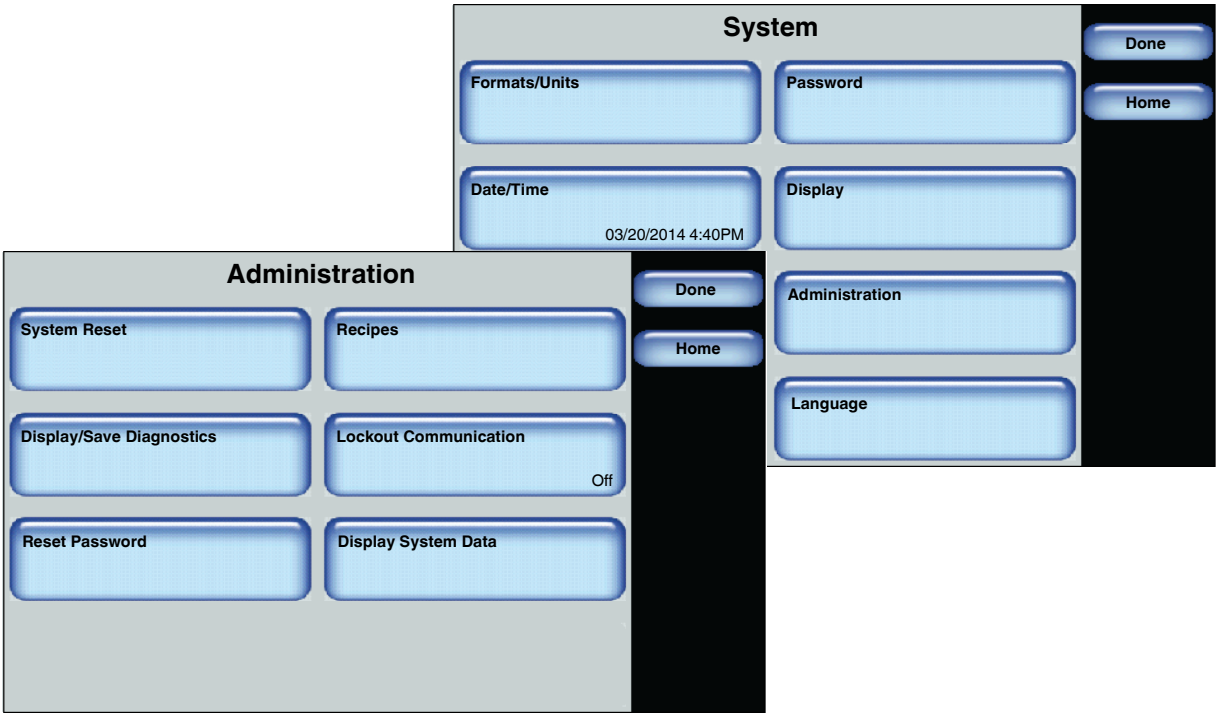
2. Touch the **Scheduler** button to switch it **On**.
3. Touch **Done**.

Administrative Options and Settings

The following sections detail the following:

- Managing recipes
- Viewing the event log
- Resetting to System Defaults
- Resetting password level codes
- Viewing system information
- Locking out melter communication

Accessing Administration Settings and Options



1. From the **Home Display** touch 

2. Touch the **System**, then **Administration**.

Refer to the following sections for more information.

Locating the Customer and Internal SD Cards

The LCD Module includes two SD Card slots:

- **Customer SD Card** - Contains a *backup* folder for when you want to revert back to a previous working version of the software, as well as the *EventLog.csv* and the *diagnostic.nor* files.
- **Internal SD Card** - Contains system files and a *Recipes* folder where all recipes are stored. Refer to *Distributing Recipes with other AltaPail II Melters* for more information.

NOTE: You must switch the melter off, and disconnect the electrical power to the melter at the local power source before accessing either SD Card.

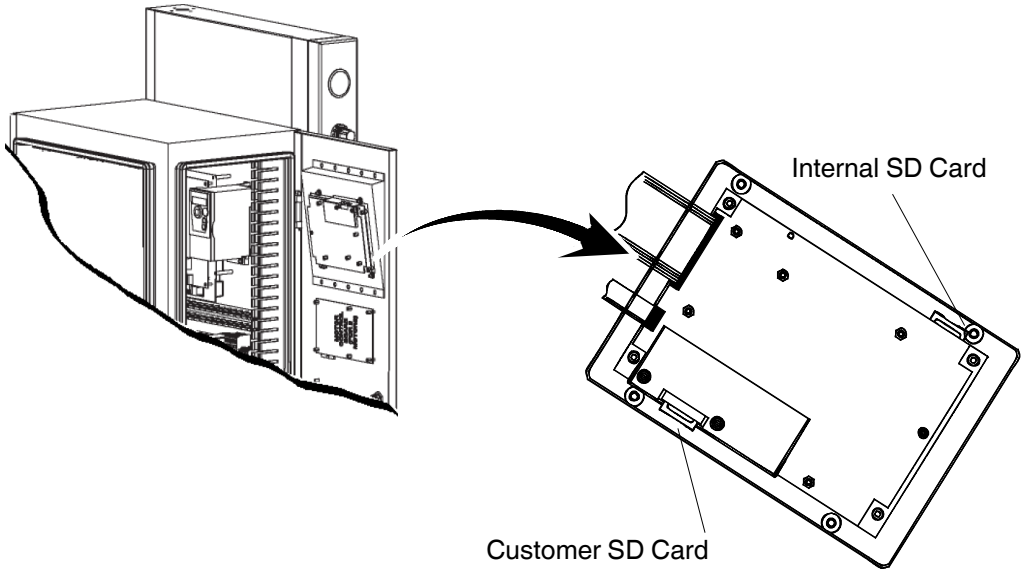


Figure 7-1 Location of the Customer and Internal SD Cards.

Reverting back to a Previous Version

As part of the upgrade process, the current **.dat* file is automatically copied into the *\backup* directory of the Customer SD Card.

Before attempting to revert to a previous version, make sure of the following:

- You have a computer with an SD Card device with Read/Write capabilities.

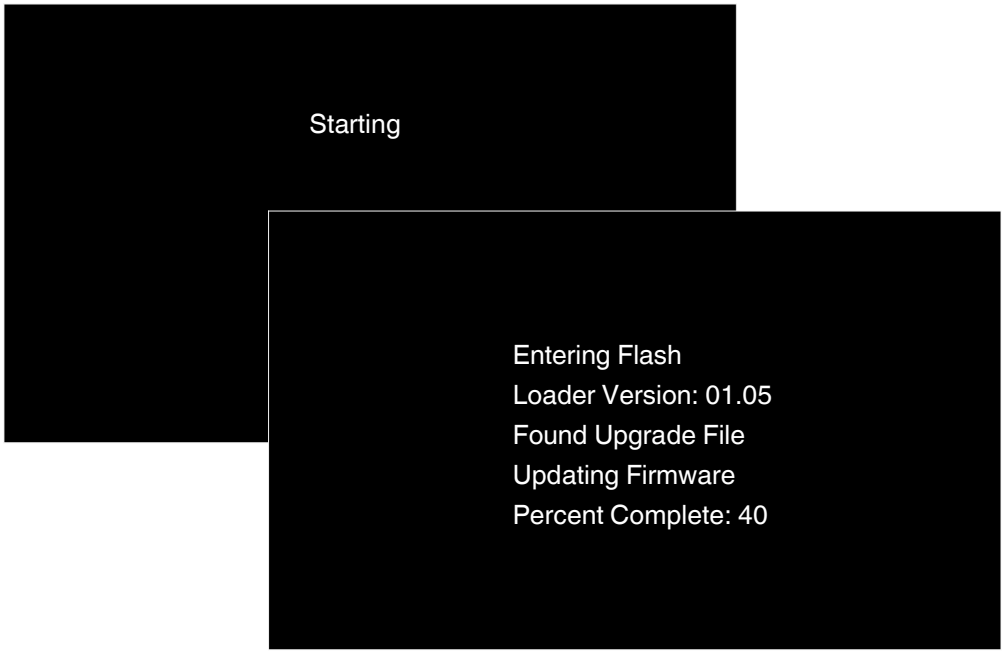


Figure 7-2 The upgrade process.

1. Switch the melter off, and disconnect the electrical power to the melter at the local power source. Open the door to access the CPU board.
2. Locate and remove the Customer SD card. Refer to Figure 7-1.
3. Using your PC, do the following:
   - Navigate to the *\backup* directory and copy the **.dat* file you want.
   - Navigate to the root of the SD Card and paste the **.dat* file.
4. Replace the Customer SD Card, close the access door, reconnect the local power source, and switch the melter **On**. Refer to Figure 7-2.
5. The system automatically detects a new **.dat* file and does the following:
   - A copy of the current **.dat* file is copied into the *\backup* directory on the SD Card.
   - The CPU board is upgraded first, followed by the Motor Control board.
   - The entire upgrade process should take approximately 10 minutes. When done, the software automatically reboots the melter. The upgrade is complete.

Managing Recipes

Use recipes to save production settings, such as zones and pump settings, as well as other melter settings including scheduled events, and security settings, to a file that you can use, modify, delete and share or copy with other AltaPail II melters.

NOTE:

- Recipes are stored in the *Recipes* folder located on the Internal SD Card. Refer to Figure 7-1 to locate the Internal SD card.
- Refer to table 7-1 for more information about what is saved to a recipe.
- The melter retains the settings of the previously loaded recipe, even if you delete or decide not to make use of a recipe.

Accessing the Recipes Screen

You can access the Recipes screen by doing one of the following:

- From the Operator Display, touch Recipes.
  - Refer to Figure 7-3.
- From the Master Controls | System | Administration, then touch Recipes.
  - Refer to Figure 7-4.

Figure 7-3 Accessing Recipes from the Operator Display

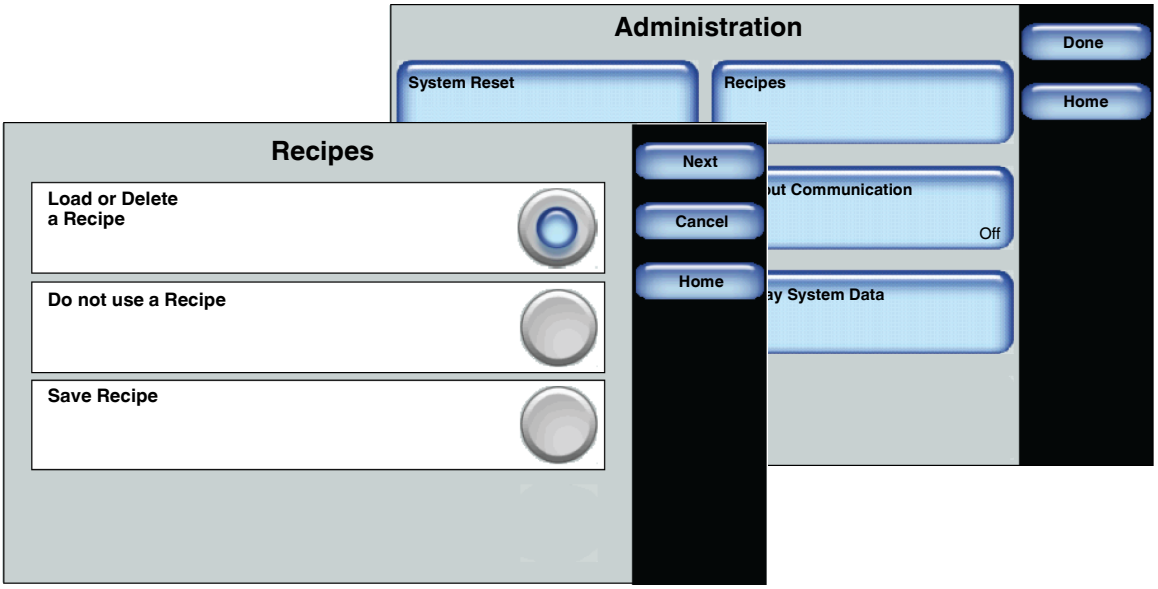


Figure 7-4 Accessing Recipes from the Master Controls | Administration screen

1. Access the Recipes screen.
2. Decide what you want to do and touch **Next** to continue.

Task	Touch	Description
Load a recipe	Load or Delete a Recipe	Select an existing recipe you want use. Touch **Load** to continue.
Delete a recipe		Select an existing recipe you no longer want to use. Touch **Delete** to continue. **NOTE:** The melter retains the settings of the previously loaded recipe.
Unload and/or not make use of any recipe	Do not use a Recipe	Unloads the currently loaded recipe. Select this option when troubleshooting or performing maintenance on the melter. **NOTE:** The melter retains the settings of the previously loaded recipe.
Create a new recipe	Save Recipe	Do the following: 1. Configure and test melter settings until it meets your manufacturing requirements. 2. Access the Recipes screen, touch Save Recipe and enter an easily identifiable recipe name.
Modify an existing recipe		**NOTES:** • To update the settings of the recipe, enter the exact same recipe name. • The system unloads the currently loaded recipe, then saves the new settings and automatically loads it.

Distributing Recipes with other AltaPail II Melters

Before distributing or sharing recipes with other AltaPail II melters, make sure of the following:

- You have a computer with an SD Card device with Read/Write capabilities.
- The other AltaPail II melters are running the same firmware version.

1. Switch the melter off, and disconnect the electrical power to the melter at the local power source. Open the door to access the CPU board.
2. Remove the Internal SD card and place it into your SD Read/Write device that is connected to your computer. Refer to Figure 7-1 to locate the Internal SD card.
3. Select and copy the recipe file or files into your computers memory.
   - Navigate to the *Recipes* directory and *copy* the recipe file or files you want.
   - Remove the SD card.
4. Paste the recipe file or files to another Internal SD card.
   - Insert the Internal SD card from another AltaPail II melter.
   - Navigate to the *Recipes* directory and *paste* the recipe file or files. If the *Recipes* folder does exist, you must first create it before pasting files into it. Make sure to spell the name with a capital **R**, the rest of the letters in lower-case.
   - Repeat this step for each AltaPail II melter.
5. When done, replace the Internal SD card back to the melter, close the access door, reconnect the power and switch the melter **On**.
6. Access the **Recipe** screen to **Load** the recipe you want.

What's Being Saved in a Recipe

The following highlights what a recipe is saving to a file.

Table 7-1 *Recipe Details*

General Information	Administration Information
• Software Version • Language • Date, Time, and Temp unit format • Under and Over Temperature threshold values • Configuration settings for standard and expanded Inputs and Outputs	• Service Alerts (enabled or disabled) • Service Interval value • RTD Type value • Scheduler (enabled or disabled) Settings and events for each day of the week • Selected password level • Numeric password code for each password level • Password Timeout value
Temperature Information	**Zone Information**
• Standby Temperature • Standby (enabled or disabled) • Auto Exit Standby (enabled or disabled) • Auto Exit Standby Time value • Auto Heaters Off Time value • Auto Standby Time value	• Zone (enabled or disabled) • Default and user-defined names • Set Point values • PID values
Pump Information	
• Pump (enabled or disabled) • Auto Pump On (enabled or disabled) • Remote Pump (enabled or disabled) • Specific pump operation mode settings	

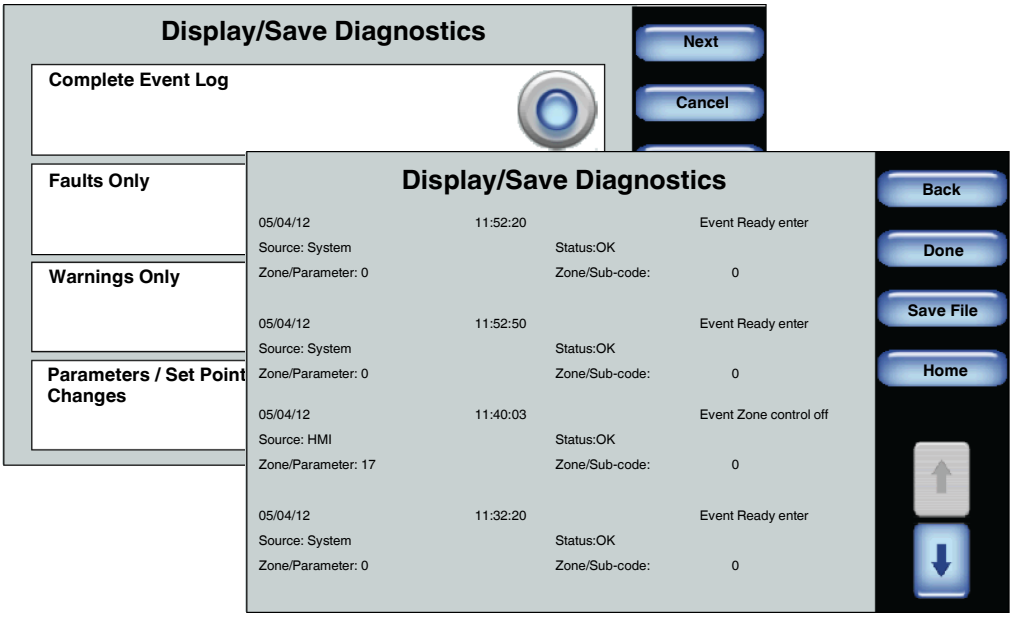
Viewing the Event Log

Use the event log to help troubleshoot issues with the melter.

NOTE: You can also view the vent log by touching the middle melter status middle button  located at the bottom of the Home screen.

You can do the following:

- Filter specific events or review all events for viewing purposes only within the **Display/Save Diagnostics** screen.
- View up to 200 of the most recent events.
- Touch **Save File** to write *ALL* events, regardless of which filter you selected to the Customer SD card. Refer to Figure 7-1.



1. From the **Home Display** touch 

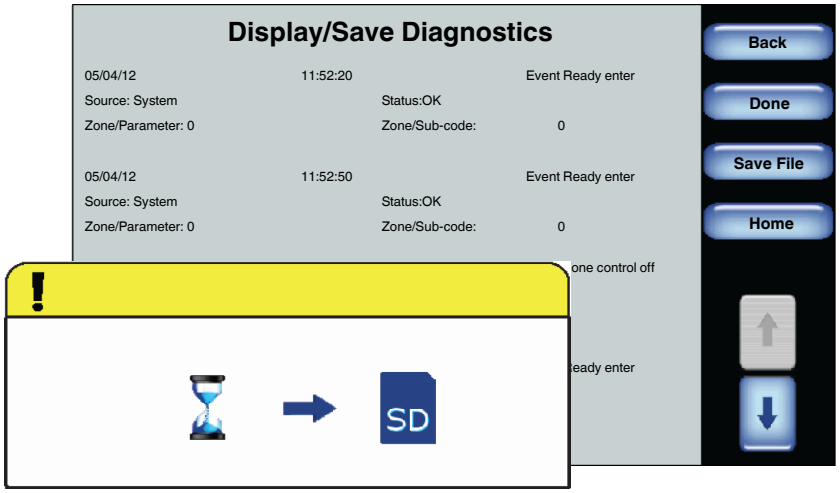
2. Touch **System**, then **Administration**.
3. Touch **Display/Save Diagnostics** and select which event log option you want to filter for viewing purposes only.
4. Touch **Next** to continue. The events are displayed in the **Display/Save Diagnostics** screen.

Creating the EventLog and Diagnostic Files

Use the Display/Save Diagnostics to do the following:

- Create a *csv* version of the event log, allowing you to easily view the file in most any spreadsheet program. Refer to *Using the EventLog.csv* for more information.
- Create a diagnostic file that you can send to your Nordson service representative to help resolve melter issues. Refer to *Using the diagnostic.nor* file for more information.

NOTE: To make use of the saved log files, you must have a computer with an SD Card device with Read/Write capabilities.



1. From the **Home Display** touch 

2. Touch **System**, then **Administration**.
3. Touch **Display/Save Diagnostics** and select the **Complete Event Log** option. The entire event log is saved regardless of which filter you selected.
4. Touch **Next,** then touch **Save File**. A message box appears confirming when the files have been saved to the Customer SD Card.
5. Switch the melter **Off**, and disconnect the electrical power to the melter at the local power source. Open the door to access the CPU board.

6. Refer to Figure 7-1 to locate and remove the Customer SD card from the LCD module, then place it into the SD Card device connected to your computer. By default, the following files are created:

File Name	Description
EventLog.csv	Provides shop technicians a quick and easy way to troubleshoot melter issues by viewing recent Parameter/Set Point changes, as well as Faults and Alerts events. **NOTE:** You can view the file in most any spreadsheet program.
Diagnostic.nor	Provides your Nordson service representative the ability to view the *EventLog* data, along with additional embedded melter software and hardware data to help resolve melter issues. **NOTE:** You will not be able to view this file. Contact and email this file to your Nordson service representative.

Using the EventLog.csv File

All events, regardless of which filter you selected, is saved the *EventLog.csv* file located on the Customer SD Card.

1. Refer to Figure 7-1 to locate and remove the Customer SD card, and place it into your SD Card device connected to your computer.
2. Access the SD Card and locate the *EventLog.csv* file. You can use most any spreadsheet program to view this file.
3. When done, replace the Customer SD card back to the melter. Close the access door, connect the electrical power to the melter at the local power source, then switch the melter **On**.

NOTE: The maximum file size is limited to 500 kB or approximately 5,600 events.

Additional Event *EventLog.csv* Information

When the *EventLog.csv* initially exceeds its 500 kB file size limit, the following happens:

- The *EventLog02.csv* file is automatically created, and now it ***saves*** the new event log data.
- The *EventLog.csv* file ***stores*** the old event log data.

When the *EventLog02.csv* file exceeds *its* 500 kB file size limit, the following happens:

- The *EventLog.csv* file is automatically cleared of it old event log data, and now it ***saves*** the new event log data.
- The *EventLog02.csv* file ***stores*** the old event log data.
- The pattern repeats itself, where the two *csv* files swap between *saving* new event log data and *storing* old event log data.

Using the diagnostic.nor File

If you are unable to resolve the melter issue yourself, it is recommended that you contact, then send the *diagnostic.nor* file to your Nordson service representative. Before doing so, make sure of the following:

- You have a computer with an SD Card device with Read/Write capabilities.
- The computer has Internet access.

1. Refer to Figure 7-1 to locate and remove the Customer SD card, and place it into your SD Card device that is connected to your computer.
2. Create an email, locate and attache the *diagnostic.nor* file located on the SD Card and send it to your Nordson service representative.
3. When done, replace the Customer SD card back to the melter. Close the access door, connect the electrical power to the melter at the local power source, then switch the melter **On**.

NOTES:

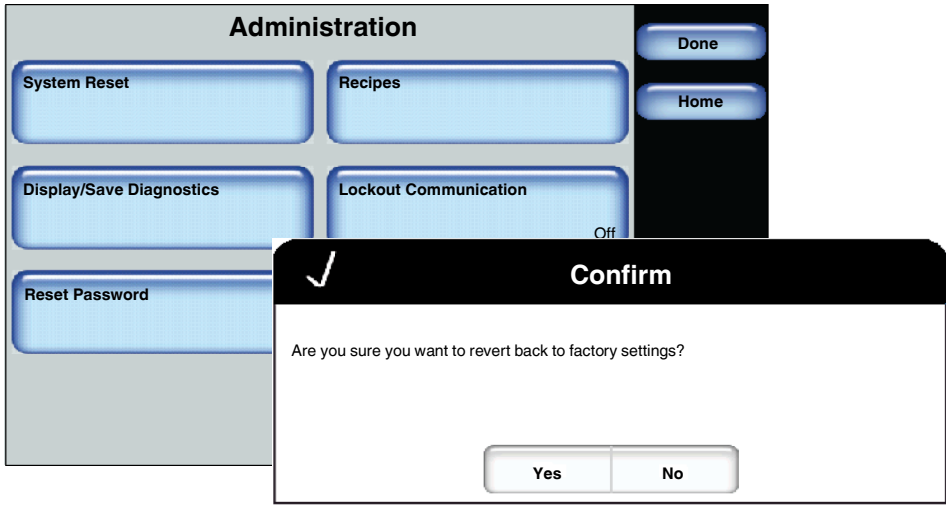
- You will not be able to open or view the *diagnostic.nor* file, as it is in a Nordson propriety file format.
- You only need to send the *diagnostic.nor,* file, as it includes the *EventLog* data in addition to the other embedded melter software and hardware data.

Resetting to System Defaults

Use system reset to revert all user definable software settings back to factory defaults.

NOTE:

- Recipes are stored on the Internal SD card, and are therefore NOT deleted or changed.



1. From the **Home Display** touch 

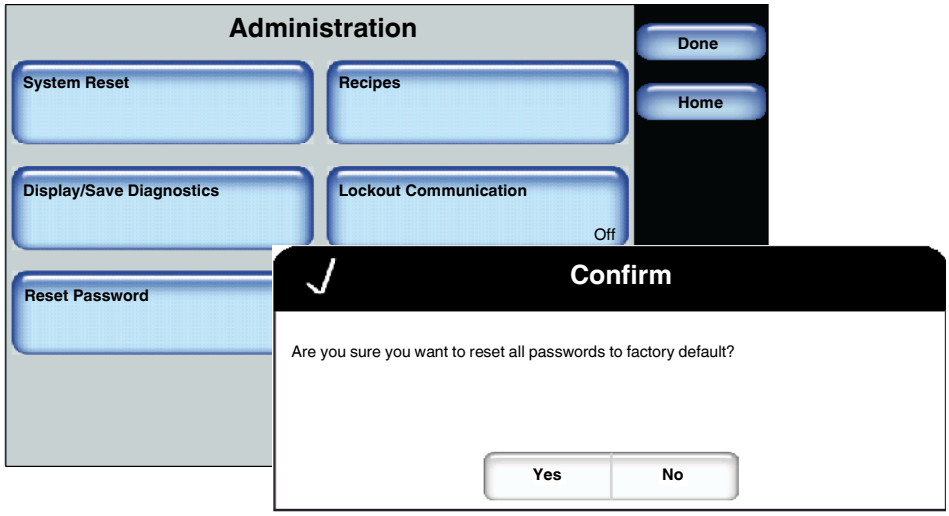
2. Touch **System**, then **Administration**.
3. Touch **System Reset**. A pop-up message appears.
4. Touch **Yes** to revert all user definable settings back to factory defaults.
5. Touch **Done**.

Resetting Password Codes

Use **Reset Password** to revert all 3 levels of password codes back to their default codes.

The following are the default password level numeric codes:

Level #	Default Code	Notes
1	1000	• Cannot start with the number 0 (zero). • Can be one up to five numbers long. • The largest 5 digit number is 65535. • Each level must have a unique numeric code.
2	2000	
3	3000	



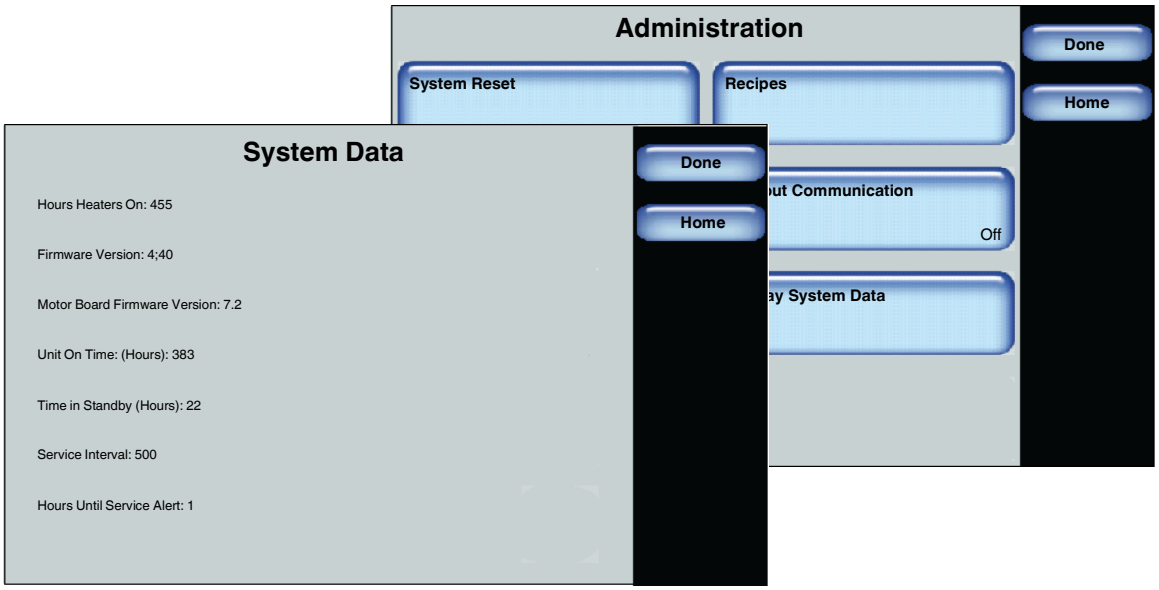
1. From the **Home Display** touch 

2. Touch **System**, then **Administration**.
3. Touch **Reset Password**. A pop-up message appears.
4. Touch **Yes** to revert all three password level codes to their default values.
5. Touch **Done**.

Viewing System Data

Use the System Data screen to view current and historical information.

NOTE: You can also view system data by touching the  located at the bottom of the Home screen.

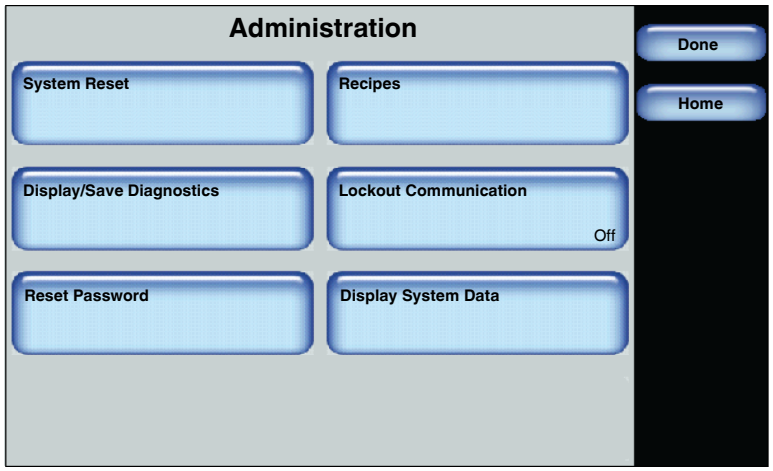


1. From the **Home Display** touch 

2. Touch **System**, then **Administration**.
3. Touch **Display System Data**. Review the information.
4. Touch **Done**.

Locking Out Communications

Use **Lockout Communication** to prevent remote access to the melter while you are troubleshooting or performing maintenance on the melter.



1. From the **Home Display** touch 

2. Touch **System**, then **Administration**.
3. Touch the **Lockout Communication** button to toggle it On or Off
4. Touch **Done**.

Default User Settings and Ranges

The following details default settings and ranges for user definable melter, temperature, pump and melter settings.

Temperature Settings

Setting	Default	Range/Option
Temperature Limits	Over Temp: 15°C (25°F)	Minimum: 5°C (10°F) Maximum: 60°C (110°F)
	Under Temp: 25°C (50°F)	Minimum: 5°C (10°F) Maximum: 60°C (110°F)
Ready Delay	60 minutes	Minimum: 0 minutes Maximum: 60 minutes
Automatic Standby	Disabled	Enabled Disabled
Auto Standby Start Time	0 minutes	Minimum: 0 minutes Maximum: 1,440 minutes
Auto Heaters Off Time in Auto Standby Mode	60 minutes	Minimum: 0 minutes Maximum: 1,440 minutes
Auto Exit Standby Time	Disabled	Enabled Disabled
Auto Exit Heaters Off Time in Auto Manual Mode	0 minutes	Minimum: 0 minutes Maximum: 180 minutes
Standby Temp	50°C (100°F)	Minimum: 5°C (10°F) Maximum: 60°C (110°F)
For Melters: 7407039, 7407040, 7407041. 7407042, 7407668 and 7407669		
Setting	**Default**	**Range/Option**
External Zones Set Point	176°C (350°F)	Minimum: 40°C (100°F) Maximum: 176°C (350°F)
Internal Zones Set Point	176°C (350°F)	Minimum: 40°C (100°F) Maximum: 176°C (350°F)
Global Set Point	176°C (350°F)	Minimum: 40°C (100°F) Maximum: 176°C (350°F)
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671		
Setting	**Default**	**Range/Option**
External Zones Set Point	232°C (450°F)	Minimum: 40°C (100°F) Maximum: 232°C (450°F)
Internal Zones Set Point	232°C (450°F)	Minimum: 40°C (100°F) Maximum: 232°C (450°F)
Global Set Point	232°C (450°F)	Minimum: 40°C (100°F) Maximum: 232°C (450°F)

Pump Settings

Setting	Default	Range/Option
Operation Mode	Manual	Manual Gear-to-Line * Pressure Control * Flow Control **NOTE:** *Requires additional hardware
Pump RPM	0	Minimum: 0 RPM Maximum: 94 RPM
Auto Pump	Off	Off On
Remote Control	None set	Off On

Melter Settings

Setting	Default	Range/Option
Service Interval	500 hours	Minimum: 0 hours Maximum: 8760 hours
Scheduler	No events defined	Minimum: 2 events per day Maximum: 12 events per day
Password Protection	No Password Protection	High Medium Low No Password Protection
Password Level Codes	Level 1: 1000 Level 2: 2000 Level 3: 3000	Minimum: 1 Maximum: 65535 **NOTE:** Code levels must be unique.
Password Timeout	1 minute	Minimum: 1 Maximum: 60
Display Brightness/Contrast	75% I 75%	Minimum: 30% Maximum: 100%
Display Screen Saver Delay	1 minute	Minimum: 1 minute Maximum: 120 minutes
RTD Options	NI120	NI120
Lockout Communications	Off	Off On
Inputs/Outputs		
Inputs	Inputs: #1: Automatic Standby #2: Standby #3: Heater Control #4: External Zone # A/B	Disabled Standby Heater Control Pump (Control) External Zone # A/B Automatic Standby (Available only for Input #1
Outputs	Outputs: #1: Ready #2: Fault #3: Tank Low	Disabled Ready Ready-Pump On Fault Tank Low Alert Service Reminder

Section 8
Maintenance

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

NOTE: Maintenance is an important preventive measure for maintaining operating safety and extending the service life of the unit. It should not be neglected under any circumstances.

Risk of Burns

Some maintenance work can only be done when the bulk melter is heated up.

WARNING: Hot! Risk of burns. Wear safety goggles and heat-protective gloves.

Relieving Pressure

WARNING: System and material pressurized. Relieve bulk melter pressure before disconnecting pressurized components (e.g. hoses, pressure sensors). Failure to observe can result in serious burns.

1. Switch the pump off.
2. Set selector *Raise/lower platen* to *0*.
3. Place a container under the nozzle(s) of the applicator/assembly handgun.
4. Applicators: Activate the solenoid valve(s) electrically or manually; or, pull the trigger of the assembly handgun. Repeat this procedure until no more material flows out.
5. Re-use the material or properly dispose of it according to local regulations.

Important when Using Cleaning Agents

- Use only a cleaning agent recommended by the hot melt material manufacturer. Observe the Material Safety Data Sheet for the cleaning agent.
- Properly dispose of cleaning agent according to local regulations.

Processing Materials

Before using, read the included EU safety data sheet.

Designation	Order number	Use
High temperature grease • Can 10 g • Tube 250 g • Cartridge 400 g	 P/N 394769 P/N 783959 P/N 402238	To be applied to O-rings and threads **NOTE:** The grease may not be mixed with other lubricants. Oily/greasy parts must be cleaned before application.
Grease *Centoplex H0* • 1 kg	 P/N 285600	Lubricating platen sealing ring
Sealing paste *Stucarit 203* • Tube 100 ml	 P/N 255369	Applied to sealing surfaces
Temperature-resistant adhesive *Loctite 640* • 50 ml	 P/N 230359	Secures screw connections
Heat transfer compound • 500 g	 P/N 257326	To improve heat conducting of temperature sensors

Preventive Maintenance

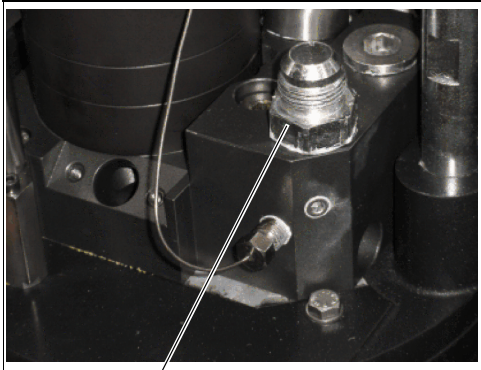
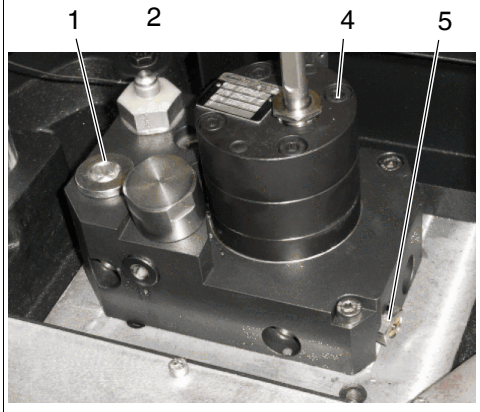
The maintenance intervals are general guidelines based on experience. Depending on the operating environment, production conditions and hours of operation, other scheduled maintenance tasks may prove necessary.

Interval	Bulk melter part	Activity	Page
After initial startup	Various	Initial maintenance	8-4
Every time the container is changed	Melting plate	Check melting plate for charred material, clean if necessary	-
	Base plate	Check base plate for material residue or other impurities, clean if necessary	-
Daily	Complete bulk melter	External cleaning	8-5
		Inspect for external damage	8-5
	Power cable	Inspect for damage	-
	Air hoses		
Daily, if dust accumulation is severe	Electrical cabinet ventilation	Clean fan screens, clean or replace filter	8-7
	Motor / gear box	Clean fan cover	-
Depending on hours of operation, pump speed and pump temperature Recommendation: Monthly	Various	Like initial maintenance	8-4
Every 15000 hours of operation or every 2 to 3 years	Motor / gear box	Change lubricant	8-8

Initial Maintenance

Heating and cooling that occur during daily operation can cause screwed parts to loosen, resulting in leakage.

Re-tighten the following components with a torque wrench:

Component			Torque		Note
Example	Pos.	Designation	[Nm]	[lbin]	
	1	Plug	20	176	A
	2	Hose fitting	25	220	A
	4	Pump: Fixing screws	25	220	A, B
	5	Safety valve	15	133	A

NOTE A: Re-tighten while the material is still soft (approx. 70 °C/158 °F, depending on the material)
B: Re-tighten crosswise

External Cleaning

External cleaning prevents pollution created by production from causing bulk melter malfunctions.

CAUTION: Observe the unit's Degree of Protection when cleaning. Refer to page 12-3, *Electrical Data*.

CAUTION: Do not damage or remove safety labels. Damaged or removed safety labels must be replaced by new ones.

Remove material residue only with a cleaning agent recommended by the material supplier. Heat with an air heater if necessary.

Remove dust, flakes etc. with a vacuum cleaner or a soft cloth.

Visual Inspection for External Damage

WARNING! When damaged parts endanger the operating safety and/or the safety of personnel, switch off the bulk melter and have the damaged parts replaced by qualified personnel. Use only original Nordson spare parts.

Changing Type of Material

NOTE: Before changing the material type, determine whether the old and new material can be mixed.

- May be mixed: Remaining old material can be flushed out using the new material.
- May not be mixed: Purge thoroughly and clean melting plate with a cleaning agent recommended by the material manufacturer. Refer to page 8-6, *Cleaning Melting Plate*.

NOTE: Properly dispose of the old material according to local regulations.

Purging with Cleaning Agent

Place a container of cleaning agent in the bulk melter to purge. Then feed the cleaning agent until it comes out free of material residue.

CAUTION: Use only a cleaning agent recommended by the hot melt material manufacturer. Observe the Material Safety Data Sheet for the cleaning agent.

Before starting production again, flush out residue of the cleaning agent using the new material.

NOTE: Properly dispose of cleaning agent according to local regulations.

Cleaning Melting Plate

The melting plate is standardly release-coated. This makes it easy to clean. Cooled material can usually be pulled off of the melting plate; if necessary, first heat to approx. 60 °C / 140 °F.

CAUTION: Do not use hard or metallic tools to clean. Do not use wire brushes! This could damage the release coating. Use only soft aids (wooden or PTFE spatula or soft brush).

Fan and Air Filter

Depending on dust accumulation, the air filters in the fan and for the air outlet must be cleaned (knocked out) or replaced.

Refer to separate document *Parts* for filter order numbers.

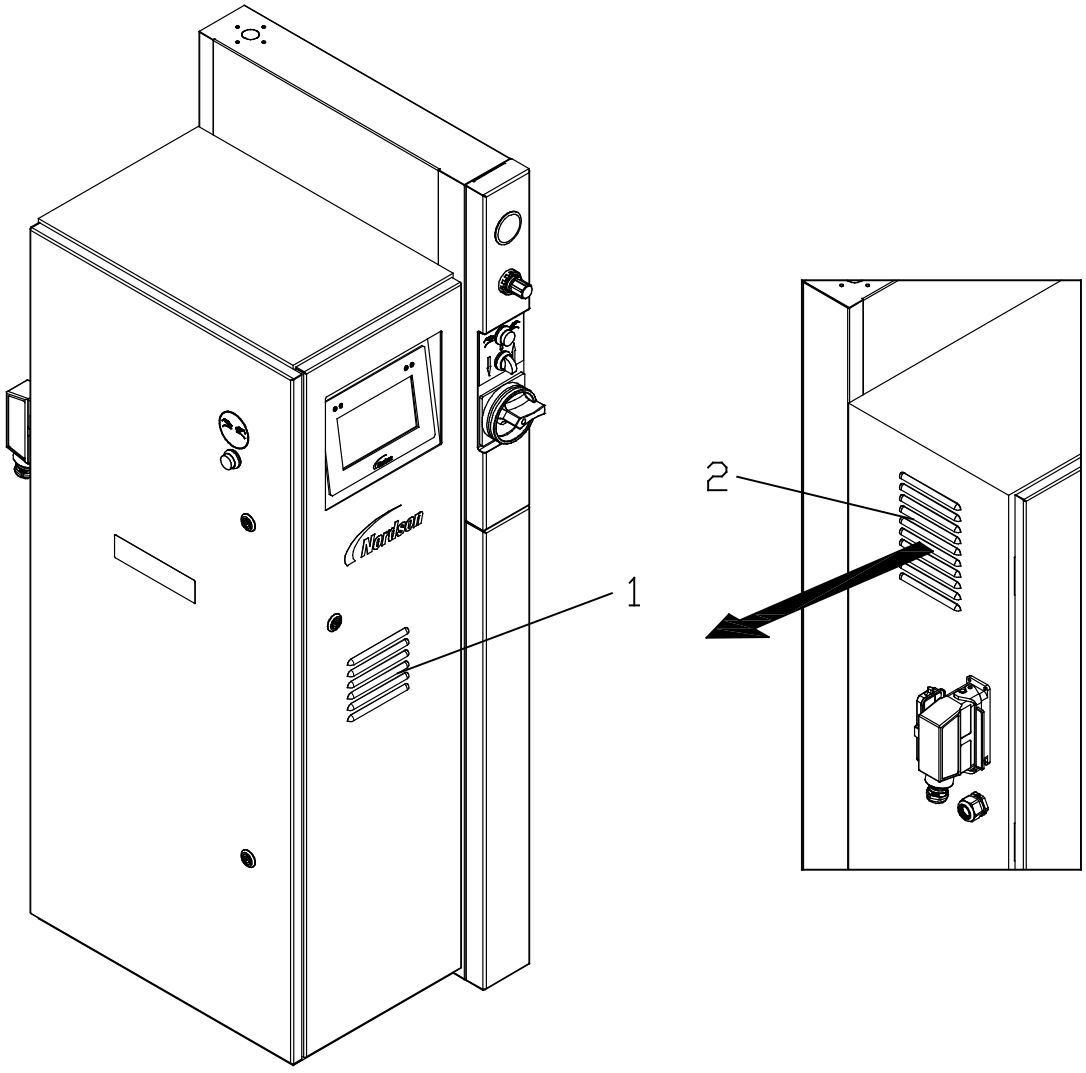


Figure 8-1

1 Fan

2 Air filter, air outlet

Motor / Gear Box

Change lubricant

Observe when changing lubricant:

- Drain lubricant when warm
- Use only the stated lubricant or one that has proven to be equivalent. Using any other lubricant can result in premature wear and/or damage to the gear box
- Properly dispose of the old lubricant according to local regulations.

Remove gear box from the motor to change lubricant. Wash out casing with suitable cleaning agent and remove lubricant residue.

Lubricant Changing Interval

When lubricant temperature is below 100° C / 212° F:

Every 15000 hours of operation or at least every 2 to 3 years.

Capacity

The lubricant quantity is indicated on the ID plate.

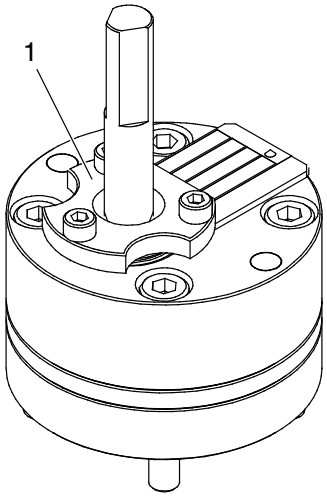
NOTE: Never mix different types of lubricants.

Lubricant Selection

Lubricant manufacturer	Mineral oil CLP 220
AGIP	Blasia 220
ARAL	Degol BMB 220 or Degol BG 220
BP	Energol GR-XP 220
DEA	Falcon CLP 220
ESSO	Spartan EP 220 or GP 90
KLÜBER	Klüberoil GEM 1-220
OPTIMOL	Optigear 220
SHELL	Omala Oil 220
TEXACO	Geartex EP-A SAE 85 W-90

Gear Pump

Checking for Leakage



Variseals are fixed in place on the pump with a flange (1). If material escapes along the shaft, the pump shaft seal must be replaced.

NOTE: A special assembly tool is needed for replacement. Refer to the separate document *Parts List*. However, Nordson recommends replacing the pump and sending the old one in to be repaired. Refer to page 10-2, *Replacing Gear Pump*.

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Section 9
Troubleshooting

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

WARNING! Troubleshooting activities may sometimes have to be carried out when the melter is energized. Observe all safety instructions and regulations concerning energized unit components (active parts). Failure to observe may result in an electric shock.

Safety

- Never disconnect cables from, or reconnect cables to, the main board while the melter is energized.
- Before breaking any hydraulic connection, always relieve system pressure. Refer to *Relieving System Pressure* in Section 7, *Service*.
- Refer to the safety information provided with optional equipment.
- If the melter is removed from its sub-base for diagnostic checks or service, ensure that the ground lead between the chassis and the sub-base is re-attached when the melter is reconnected to the sub-base.

NOTE: Refer to *Administrative Options and Settings* located in Chapter 6 of this manual.

Touch Screen Alerts and Faults

The Nordson AltaBlue Touch Adhesive melter diagnoses many alert and fault conditions that may occur during operation. An “alert” condition is a situation in which a potential problem may be occurring with the melter, pump, applicator or hose. The melter will operate under an “alert” condition unless the problem goes unresolved, at which point the melter will go into a “fault” condition, during which the melter will shut down until the problem is resolved.

Refer to the appropriate table for more information.

About Touch Screen Messages

Pump and Zone Alerts/Faults

Table 9-1 Pump and Zone Alerts/Faults

Screen Message	Affect on Melter	Cause	Corrective Action(s)
Internal or External Temperature for [ZoneName] has dropped below defined setpoint threshold	**Alert condition** - an issue has been detected. The melter continues to operate normally. **Fault condition** - if the issue is not resolved within 2 minutes of the alert message, the master pump and heaters are switched off. Melter stops functioning	The actual temperature of the component has dropped below the set temperature limit	Check for conditions that may cause a drop in ambient temperature or replace the component.
Internal or External Temperature for [ZoneName] has risen above defined setpoint threshold		The actual temperature of the component has risen above the set temperature limit	Check for conditions that may cause an increase in ambient temperature or replace the component.
Internal or External Short RTD on [ZoneName]		The RTD for the component indicated has failed or the component was disconnected from the melter.	Check the connections, or replace the RTD
Internal or External Open RTD on [ZoneName]			
Issue with a pump	The melter may not continue to work.	Refer to *Troubleshooting Pumps* later in this section for more information	

System Alerts

Table 9-2 System Alerts

Screen Message	Affect on Melter	Cause	Corrective Action(s)
Failed motor board	The melter continues to work, but some functions may not be available. Melter requires servicing.	Communication failure between CPU and the motor board	Replace motor board
NVRAM test failure		Internal RAM failure	Replace CPU

System Faults

Table 9-3 System Faults

Screen Message	Affect on Melter	Cause	Corrective Action(s)
Brownout	Master pump and heaters are switched off. Melter stops functioning	Plant power dipped and came back up	Typically nothing to address, unless the system does not operate properly, or various messages appear. Cold Stop/Start the melter.
Analog-to-Digital Failure		RTD analog-to-digital converter failed	Replace main board or CPU
Analog-to-Digital Failure Calibration		Failed hose or applicator RTD analog-to-digital converter could not be calibrated (grounded RTD in system)	Replace hose or applicator. Note: Set setpoint to zero to avoid fault. Replace main board or ribbon cable, or CPU
Expansion Board Connection Failure		Communication failure between expansion board and main board	Check the ribbon cable connections between the expansion board and the main board.
Expansion Board Failure			Replace the expansion board.
User Interface Failed to Load			Reload SD card info Replace SD card Replace CPU
Main Board Failure			Replace the main board
RAM Failure			Replace CPU
Motor Communication Failure			Refer to "*Motor Drive Faults*" later in this section for more information
Motor Thermostat Failure		Motor thermostat is open	Replace thermostat
Platen Thermostat Failure		Platen thermostat is open	Replace thermostat, J7 harness, or main board
Runaway fault on [ZoneName]		Temperature continues to rise beyond set point.	Replace Hose/applicator cordset Replace main board

Motor Drive Faults

The display on the motor drive located inside the electrical enclosure alerts the operator to abnormal motor drive/motor operation. Motor drive faults cause the pump to stop. Refer to Table 9-4 for the motor drive fault codes.

To clear a motor drive fault, correct the problem that caused the fault and then remove power from the motor drive by turning the heaters off and wait until the motor drive display is completely blank.

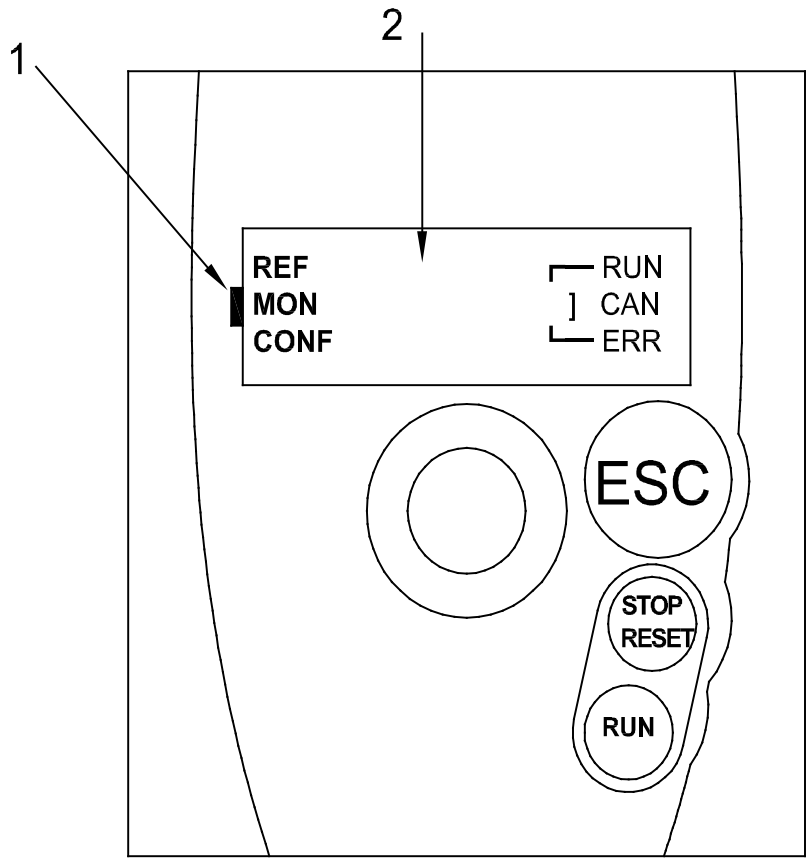


Figure 9-1 Motor drive power LED and display

1. Motor drive power LED (steady=OK, flashing=fault, off=no power)
2. Display

Motor Drive Faults *(contd)*

Table 9-4 Motor Drive Faults

Fault Code	Probable Cause	Corrective Action
CrF Capacitor load circuit	Motor drive hardware failure	Replace the motor drive.
EEF EEPROM fault	Internal memory fault	• Check the environment (electromagnetic compatibility). • Replace the motor drive.
InF Internal fault	Internal fault	• Check the environment (electromagnetic compatibility). • Replace the motor drive.

Continued...

Table 9-4 Motor Drive Faults *(contd)*

Fault Code	Probable Cause	Corrective Action
OCF Overcurrent	• Adhesive too cold • Pump or drive failure • Foreign object in pump	• Verify temperature setpoints and change as needed. The temperature setpoints should be within the range recommended by the material manufacturer. • Replace the pump or the drive assembly. • Replace the pump.
SCF Motor short-circuit	Short-circuit or earthing at the motor drive output	Check the cables between the motor drive and the motor; also check the motor insulation.
OHF Motor drive overheated	Motor drive temperature too high	• Check the motor load, the motor drive ventilation, and the environment. Wait for the motor drive to cool down before restarting. • Ensure that the unit ambient temperature does not exceed 50 °C (120 °F), that the electrical enclosure vents are not blocked, and that the electrical enclosure fan is operating properly.
OLF Motor overload	• Material exceeds the operating viscosity range • Excessive motor current • Overpressure condition caused by pressure control valve failure	• Use a material that falls within the allowable viscosity range. Refer to Section 10, *Technical Data*, for viscosity ranges. • Check the motor load. Wait for the motor drive to cool down before restarting. • If the operating hydraulic pressure exceeds the maximum allowable pressure, replace the pressure control valve. Refer to Section 8, *Technical Data*, for pressure ranges.
OPF Motor phase loss	Loss of one or more phases at motor drive output	Check the connections between the motor drive and the motor.
OSF Overvoltage	• Line voltage too high • Disturbed line supply	Check the unit input line voltage. Refer to Section 10, *Technical Data*, for allowable input voltage range.
CFF Configuration fault	Motor drive parameter(s) changed	Contact your Nordson representative.
USF Undervoltage	• Line supply too low • Transient voltage dip	Check the unit input line voltage. Refer to Section 10, *Technical Data*, for allowable input voltage range.

About the Motor Drive Panel

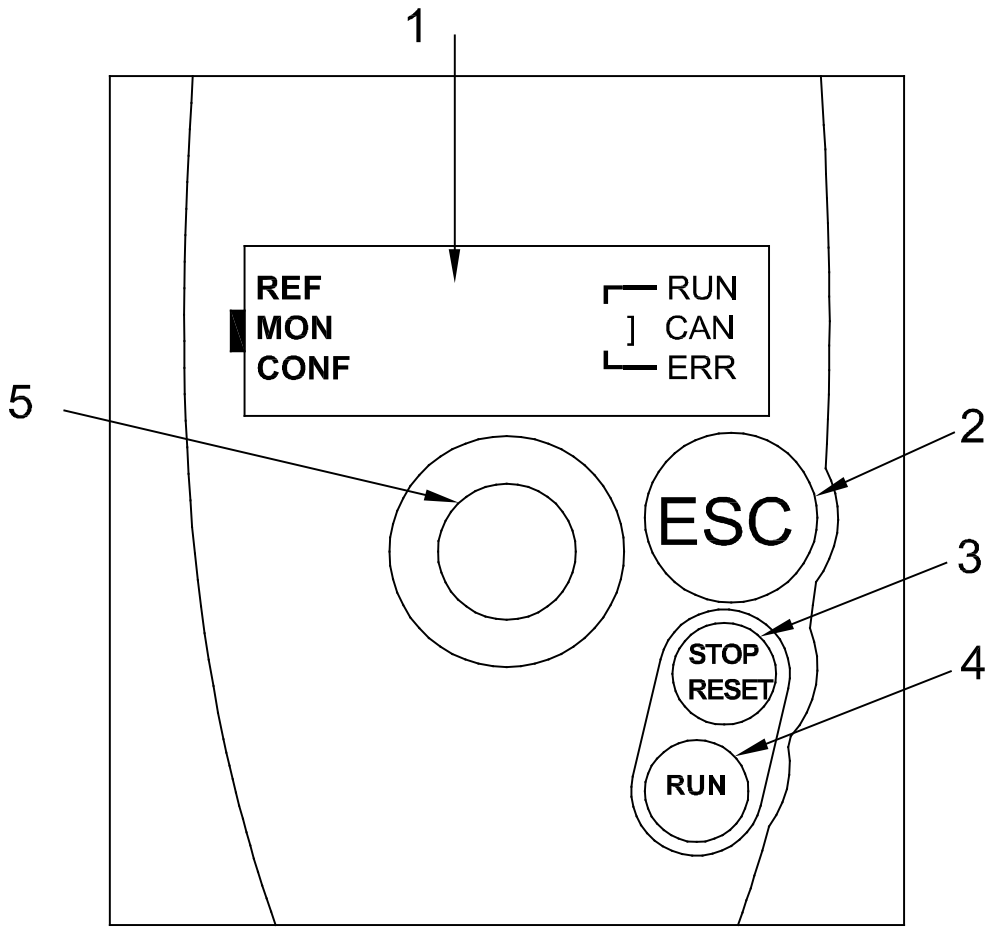


Figure 9-2 Changing a motor drive parameter

1. Graphic display
2. ESC button
3. Stop/Reset button
4. RUN button
5. Navigation button

Table 9-5 Motor Drive Parameter Factory Settings

Code	Pr.	Description	Setting	Note
drC	UFt	Type of voltage/frequency ratio	L	
			n	SN1710 pump(s) only
SEt	UFr	Ir Compensation/Voltage Boost	5	
SEt	SLP	Slip compensation	35	SN1710 pump(s) only
SEt	HSP	High Speed	102	
drC	bFr	Standard Motor Frequency	50	
drC	Uns	Nominal Motor Voltage on Name Plate	230	
drC	FrS	Nominal Motor Frequency on Name Plate	102	
drC	nCr	Nominal Motor Current on Name Plate	2.7	
drC	nsP	Nominal Motor Speed on Name Plate	1350	
drC	nrd	Random Switching Frequency	No	
drC	SFr	Switching Frequency	4.0	
drC	tFr	Maximum Output Frequency	102	
1-0	tCC	2 Wire/3 Wire Control	2C	
1-0	tCt	Type of 2 Wire Control	LEL	
1-0	AOlt	Configuration of Analog Output	IOU	
1-0	dO	Analog/Logic Output	OFR	
1-0	r2	Relay r2	rUn	
CtL	Fr1	Configuration Reference 1	AI1	

Troubleshooting Tables

Melter Not Functioning

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. No line voltage	—	Connect line voltage
2. Main power switch not switched on	—	Place main power switch in ON position
3. Main power switch defective	—	Replace main power switch
4. Main circuit breaker activated	—	Switch on main circuit breaker
5. Main circuit breaker activated again	Check for short circuit in melter or accessories	—
6. 24 VDC power supply defective	—	Replace
7. Frequent melter shutdown	Electromagnetic compatibility disruptions	Add mains filter

One Channel (Heating Zone) Does Not Heat

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Channel is disabled / switched off	—	Enable / switch on

Troubleshooting Pump

No Material (Pump Does not Rotate)

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Melter not yet ready for operation (heatup phase)	—	Wait until the melter has heated up and the green indication lamp is lit
2. Melter at present not ready for operation (undertemperature during operation)	Material was refilled	Wait until the melter has heated up and the green indication lamp is lit
3. Motor not enabled	—	Enable motor
4. Speed (rpm) not set	—	Set speed (rpm)
5. Standby entered	—	Exit or wait until standby period has expired
6. Motor overheated	Ambient temperature too high	Decrease ambient temperature by cooling or airing out
	Fan cap dirty	Clean
	Pump blocked by foreign matter	Replace pump
	Pump operates too sluggish	Replace pump
	Material too cold	Set temperature accordingly
7. Motor defective	—	Replace
8. Motor not supplied with voltage	—	Technical inspection
9. Motor drive fault	—	Switch melter off and on again with main power switch
	Motor overheated	See above
	Motor controller overheated	Decrease ambient temperature by cooling or airing out
		Clean cooling section of motor controller
	Short circuit	Check motor cable
	Overload (pump blocked by foreign matter, pump too sluggish, material too cold)	Refer to 6.
10. Motor drive defective	—	Replace

No Material (Motor Rotating)

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Pail empty	—	Replace pail
2. Material supply hole to pump or pump suction hole clogged	—	Detach pump and clean supply hole or suction hole
3. Safety valve defective	—	Replace safety valve
4. Pump defective	—	Replace pump

Too Little Material

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Material supply hole to pump or pump suction hole partially clogged	—	Detach pump and clean supply hole or suction hole
2. Processing temperature set too low	—	Correct temperature setting
3. Pump block is worn	—	Replace pump
4. Safety valve defective	—	Replace safety valve
5. Pump defective	—	Replace pump

Material Residue in Pail

Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Platen setpoint temperature set too high	—	Correct temperature setting
	Material of low quality or not appropriate for application (temperature resistance poor)	Consult material supplier

Material Hardens in Pail

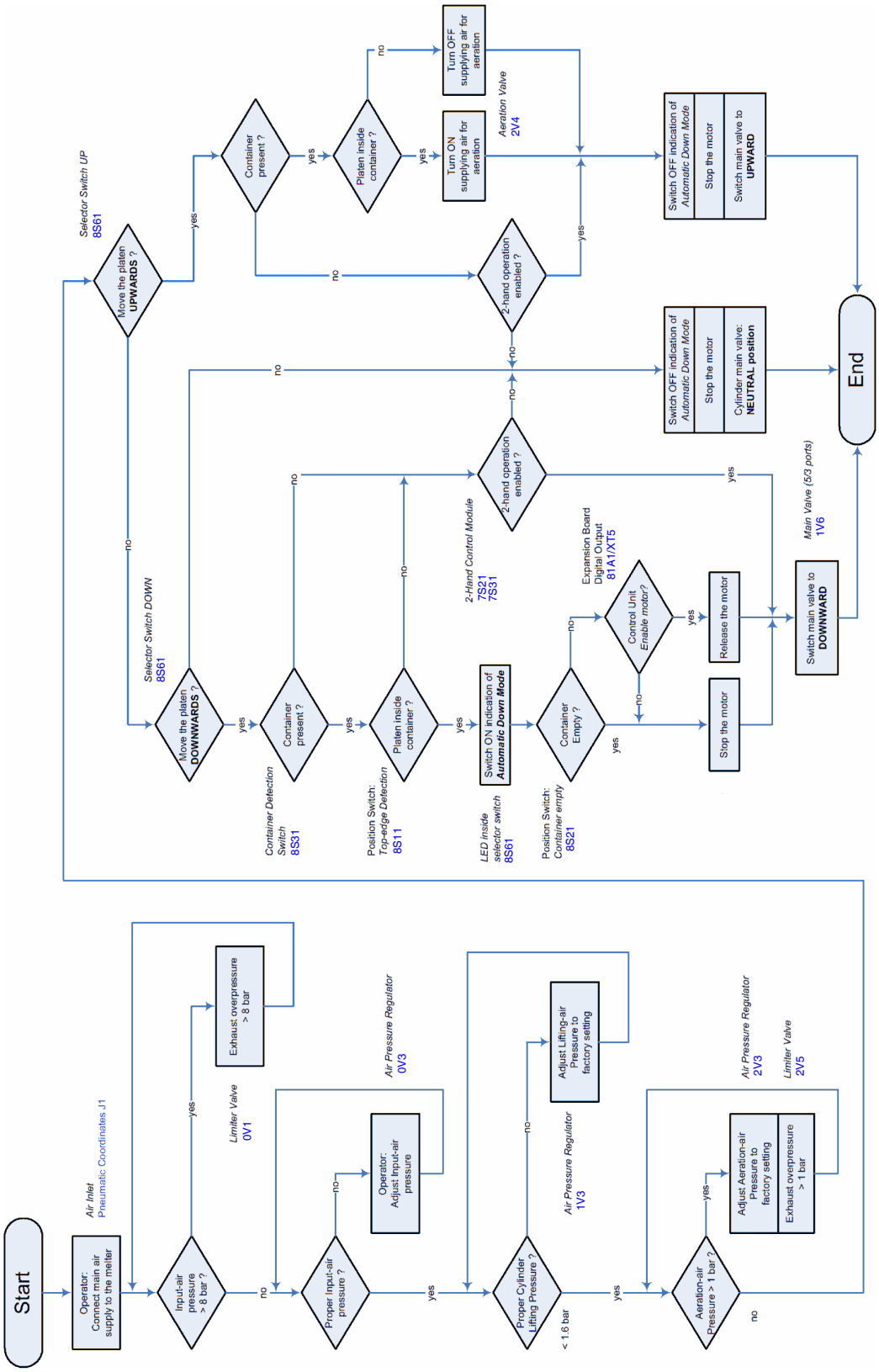
Possible Cause	Possible Fault / Troubleshooting	Corrective Action
1. Platen setpoint temperature set too high/too low	—	Correct temperature setting

Others

Problem	Possible Cause	Corrective Action
1. Leakage at pump shaft seal	Pump shaft seal is worn	Tighten the gland bolt
	—	Replace pump
2. Material pressure too low, output quantity too low	Pump is worn	Replace pump
3. Pump blocked	Processed material too cold	Correct temperature setting (observe data sheet of material manufacturer)
	Foreign material in pump	Replace pump
4. Leakage at applicator during heatup phase	Safety valve does not open (expansion pressure)	Replace safety valve

- Separate document *Wiring Diagram*.

Flow Chart Platen Control



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Section 10
Repair

WARNING! Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Observe Before Performing Repairs

WARNING! Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.

WARNING: Disconnect equipment from line voltage before any repairs.

Risk of Burns

WARNING! Hot! Risk of burns. Wear appropriate protective clothing/equipment.

Some components can be detached only when the bulk melter is heated up.

Relieving Pressure

WARNING: System and material pressurized. Relieve bulk melter pressure before disconnecting pressurized components (e.g. hoses, pressure sensors). Failure to observe can result in serious burns.

1. Switch off motor.
2. Set selector *Raise/lower platen* to *0/stop*.
3. Place a container under the nozzle(s) of the applicator/assembly handgun.
4. Applicator: Activate the solenoid valve(s) electrically or manually; or, pull the trigger of the assembly handgun. Repeat this procedure until no more material flows out.
5. Properly dispose of material according to local regulations.

Replacing Gear Pump

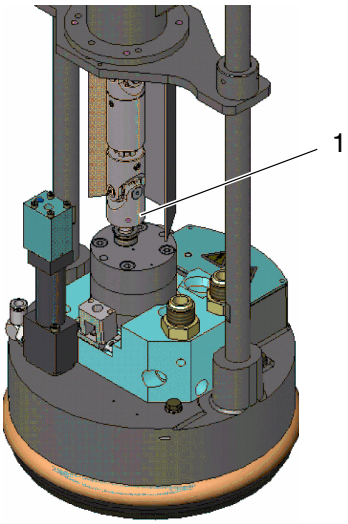
WARNING: System and material pressurized. Relieve bulk melter pressure before disconnecting pressurized components (e.g. hoses, pressure sensors). Failure to observe can result in serious burns. Refer to page 10-1, *Relieving Pressure*.

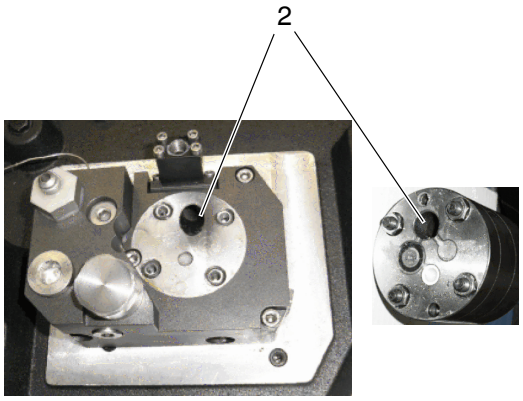
WARNING: Hot! Risk of burns. Wear heat-protective gloves.

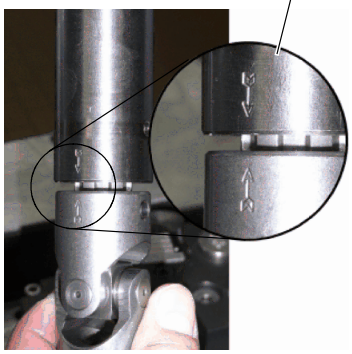
Detaching Gear Pump

NOTE: Detach the gear pump only when the material is soft (approx. 70 °C/158 °F, depending on material).

1. Remove the cover and detach the Cardan joint (1) from the pump shaft.
2. Detach pump.
3. Allow the bulk melter to cool to room temperature.



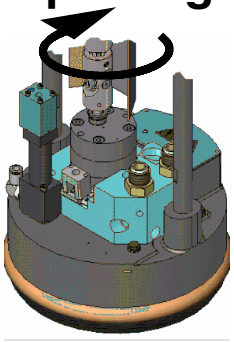




Attaching Gear Pump

1. Clean the sealing surfaces on the plate and pump. If necessary, heat material residue with a hot air fan, then remove.
2. Put the pump in place. Ensure that the suction hole (2) is positioned properly.
3. Screw the pump into place:
   a. Apply high temperature grease (Refer to page 8-2, *Processing Materials*) and tighten by hand, such that the pump and plate have thermal contact
   b. Wait until the pump and plate are at the same temperature
   c. Tighten the fixing screws crosswise using a torque wrench. Torque: 25 Nm / 220 lbin.
4. Attach Cardan joint. Ensure that the marks (3) line up.
5. Put the cover into place.

Replacing Motor



NOTE: Perform work only when the material is soft (approx. 70 °C/158 °F, depending on material); otherwise the Cardan joint can not be turned.

Observe when replacing:

- Verify that the electrical connection effects the desired direction of rotation (see arrow).

Replacing Safety Valve

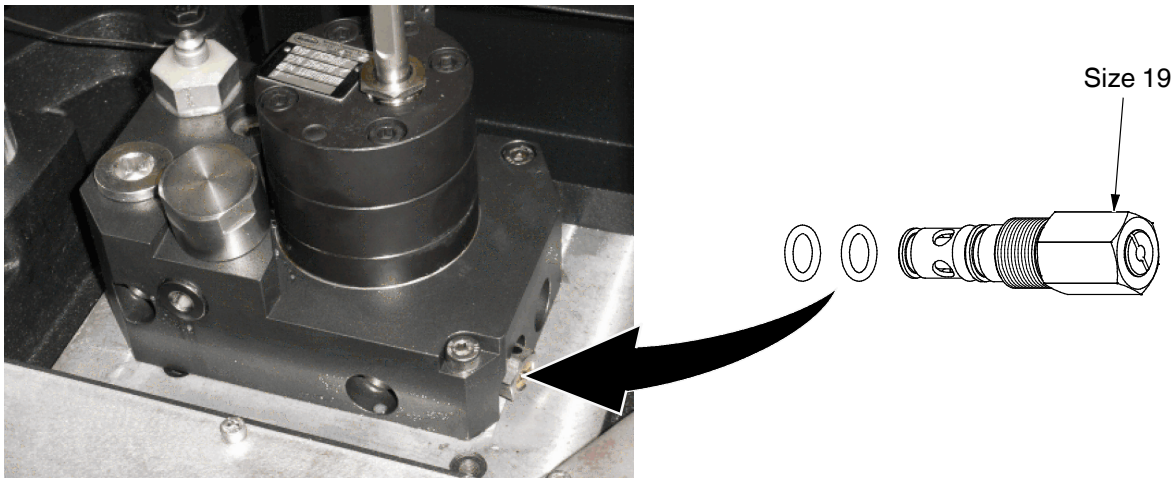
WARNING! For safety reasons, the safety valve may not be disassembled. The complete valve must be replaced every time.

WARNING: System and material pressurized. Relieve bulk melter pressure before disconnecting pressurized components (e.g. hoses, pressure sensors). Failure to observe can result in serious burns. Refer to page 10-1, *Relieving Pressure*.

WARNING: Hot! Risk of burns. Wear heat-protective gloves.

Observe when replacing:

- Replace the valve only when the bulk melter is heated. Otherwise the sealing rings could be damaged by charred material
- Apply high temperature grease to all threads and O-rings (Refer to page 8-2, *Processing Materials*)
- Tighten valve with a torque wrench. Torque: 15 Nm (133 lbin).



Replacing O-rings

WARNING: System and material pressurized. Relieve bulk melter pressure before disconnecting pressurized components (e.g. hoses, pressure sensors). Failure to observe can result in serious burns. Refer to page 10-1, *Relieving Pressure*.

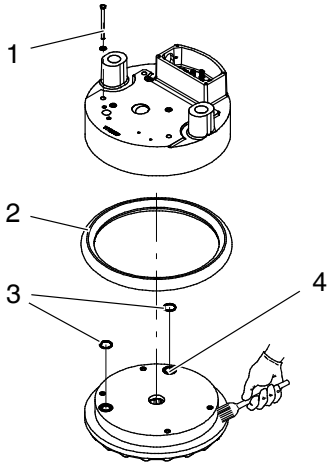
WARNING: Hot! Risk of burns. Wear heat-protective gloves.

When leakage occurs, e.g. at the hose connections, the O-rings must be replaced. Observe the following:

- Clean and lubricate O-ring groove. Nordson recommends special high temperature grease; refer to page 8-2, *Processing Materials*.
- Also lubricate O-ring
- Do not use removed O-rings again.
- Tighten hose connection and blind covers with a torque wrench to 9.5 Nm.

Replacing Melting Plate and/or Sealing Ring

WARNING: Hot! Risk of burns. Wear heat-protective gloves.



1. Heat the platen until the material softens (approx. 70 ° C / 158 ° F, depending on the material).
2. Place a clean, hard, heat-resistant resting surface (e.g. metal plate) on the container and lower the platen onto the surface.
3. Release all of the fixing screws (1).
4. Raise the platen approx. 10 cm. The melting plate remains on the resting surface.
5. Shut down the bulk melter.
6. Carefully extract the temperature sensor from the bore (4).
7. Replace the O-rings (3). Clean and grease the grooves. Refer to page 8-2, *Processing Materials* for the type of grease to be used.

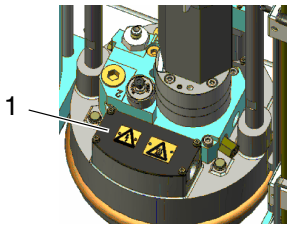
   The sealing ring (2) can now be replaced. Refer to page 8-2, *Processing Materials* for the type of grease to be used.
8. Apply heat transfer compound (Refer to page 8-2, *Processing Materials*) to the temperature sensor and insert it into the bore (4).
9. Screw the melting plate into place:
   a. Grease the fixing screws and screw in loosely such that the platen and melting plate have thermal contact
   b. Wait until the platen and melting plate are at the same temperature
   c. Tighten the fixing screws with 10 Nm.

   NOTE: The next time the platen is *cold* (e.g. weekend, factory vacation) tighten the fixing screws again with the stated torque.

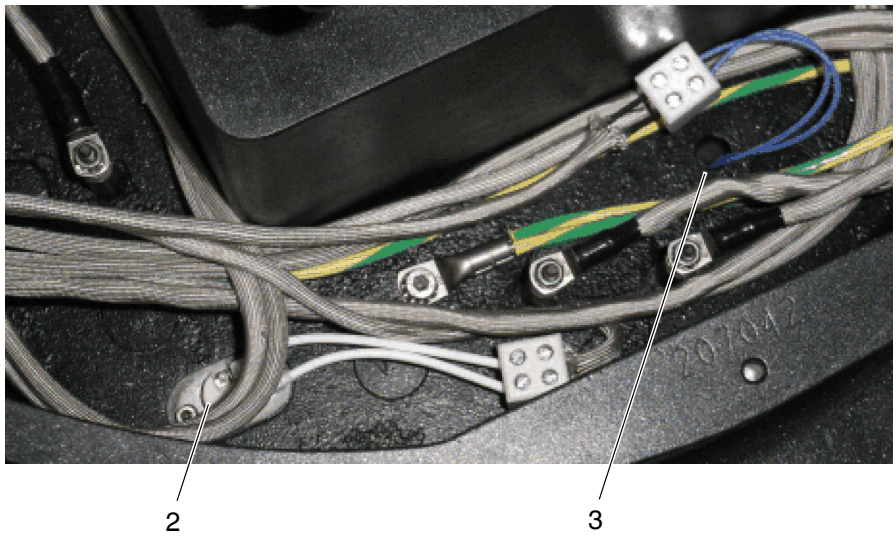
Replacing Temperature Sensor or Thermostat

WARNING: Hot! Risk of burns. Wear heat-protective gloves.

WARNING: Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.



1. Disconnect the bulk melter from the line voltage.
2. Remove the cover (1).



3.

Thermostat (2)

1. Apply heat transfer compound (Refer to page 8-2, *Processing Materials*) to the new thermostat and replace.

Temperature sensor (3)

1. Carefully pull the temperature sensor out of the melting plate by the connecting cable. If it cannot be pulled out easily, the melting plate must be removed. Refer to page 10-5, *Replacing Melting Plate*.
2. Apply heat transfer compound (Refer to page 8-2, *Processing Materials*) to the temperature sensor and insert/fasten.

3. Re-attach the cover.
4. Start up the bulk melter again.

Replacing Control Panel

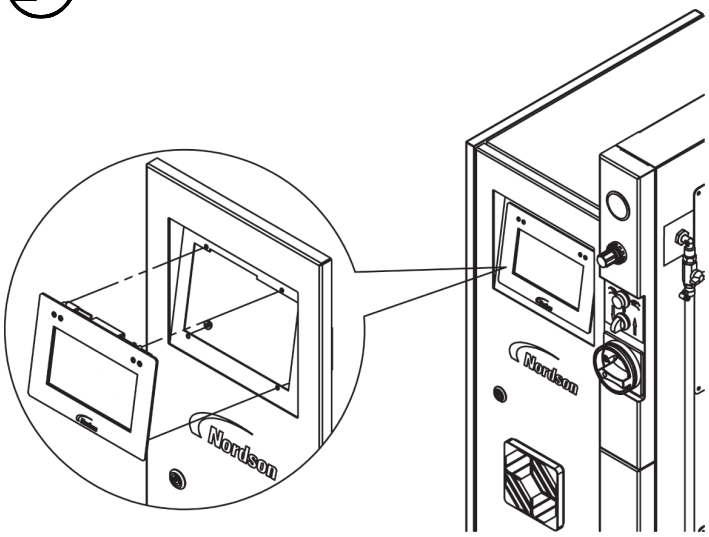
You must purchase Service kit P/N: 394734. You will need the following tools:

- Electrical cabinet key
- Open-end or box wrench, size 7

WARNING: Risk of electrical shock. Failure to observe may result in personal injury, death, or equipment damage.

Installing Service Kit

WARNING: Disconnect the bulk melter from the line voltage.



1. Set the main switch to 0/OFF and Open electrical cabinet door.
2. Unplug bus cable from old control panel.
3. Release the M4 hexagon nuts and remove with the tooth lock washers.
4. Press old control panel and old seal forwards and out of the electrical cabinet door.
5. Insert the new control panel and secure it using the tooth lock washers.
6. Plug bus cable into new control panel and then close the electrical cabinet door.
7. Simultaneously turn on the main switch and hold down the key *Heater* and the platen icon on the control panel until the LEDs on the control panel light up once.

NOTE: When a new control panel has been installed, the following step must be performed the next time the system is switched on:

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Section 11
Parts

How to Use Illustrated Parts List

The parts lists in this section are divided into the following columns:

Item— Identifies illustrated parts that can be obtained from Nordson.

Part— Nordson part number for each spare part shown in the illustration. A row of hyphens in the column Part (- - - - -) indicates that this part can not be ordered separately.

Description— This column contains the name of the part and, when appropriate, its dimensions and other properties. The points in the column *Description* show the relationship between assemblies, subassemblies and single parts.

Quantity— The quantity needed per unit, assembly or subassembly. The abbreviation AR (as required) is used when this item is a bulk item or when the quantity per assembly depends on the product version or model.

Melter — This column indicates the melter P/N in which this part is installed. It is not contained in all of the melters shown on the back of the cover page.

Fasteners

Fasteners are shown as *Fx* in every illustration, whereby ”x” indicates the number of the fastener in the list *Schedule of Fasteners* at the end of this document.

Component Designation

The electrical components are labeled in accordance with DIN 40719, part 2.

Assembly Overview

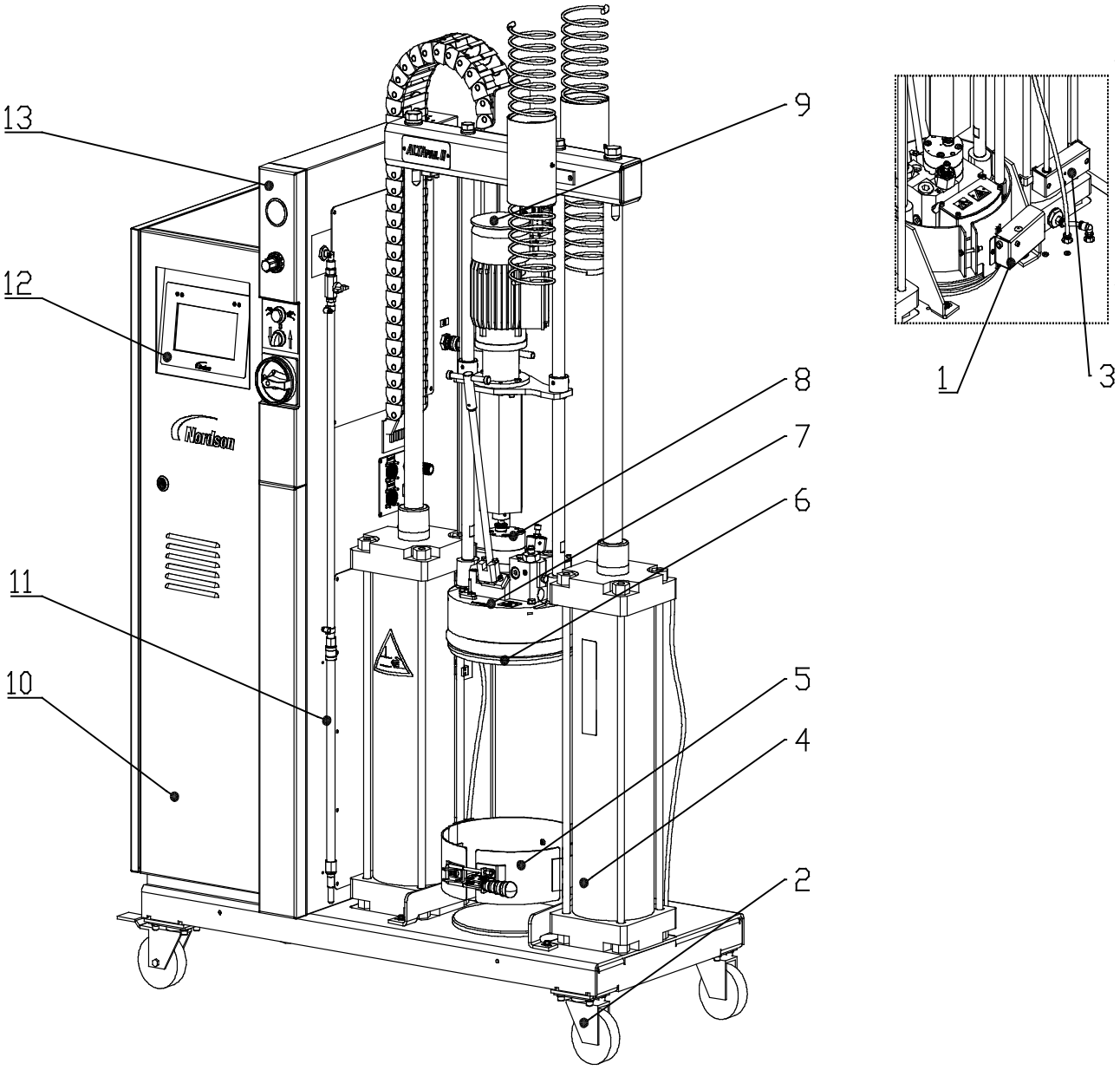

Figure 11-1

1. Device, container detection
2. Castors
3. Device platen position inquiry
4. Pneumatic cylinder D160-520
5. Pail clamp
6. Melting plate
7. Platen assembly
8. Pump
9. Motor
10. Cabinet assembly
11. Aeration (manual)
12. LCD touch screen
13. Cover front switch

Ship With Kit

Item	Part	Description	Quantity	Melter
-	7403875	hose connect.ftg.a9/16UNF-a1 1/16UNF	1	
-	7126911	hose connect.ftg.a1 1/16UNF-a1 1/16UNF	1	
-	7407078	PUSH IN FITTINF,QS-12-10	1	
-	7407079	PUSH IN FITTINF,QS-12-08	1	
-	7403849	CATCH PAN VP VX	2	

Spare Parts and Service Kits

Device, Container Detection

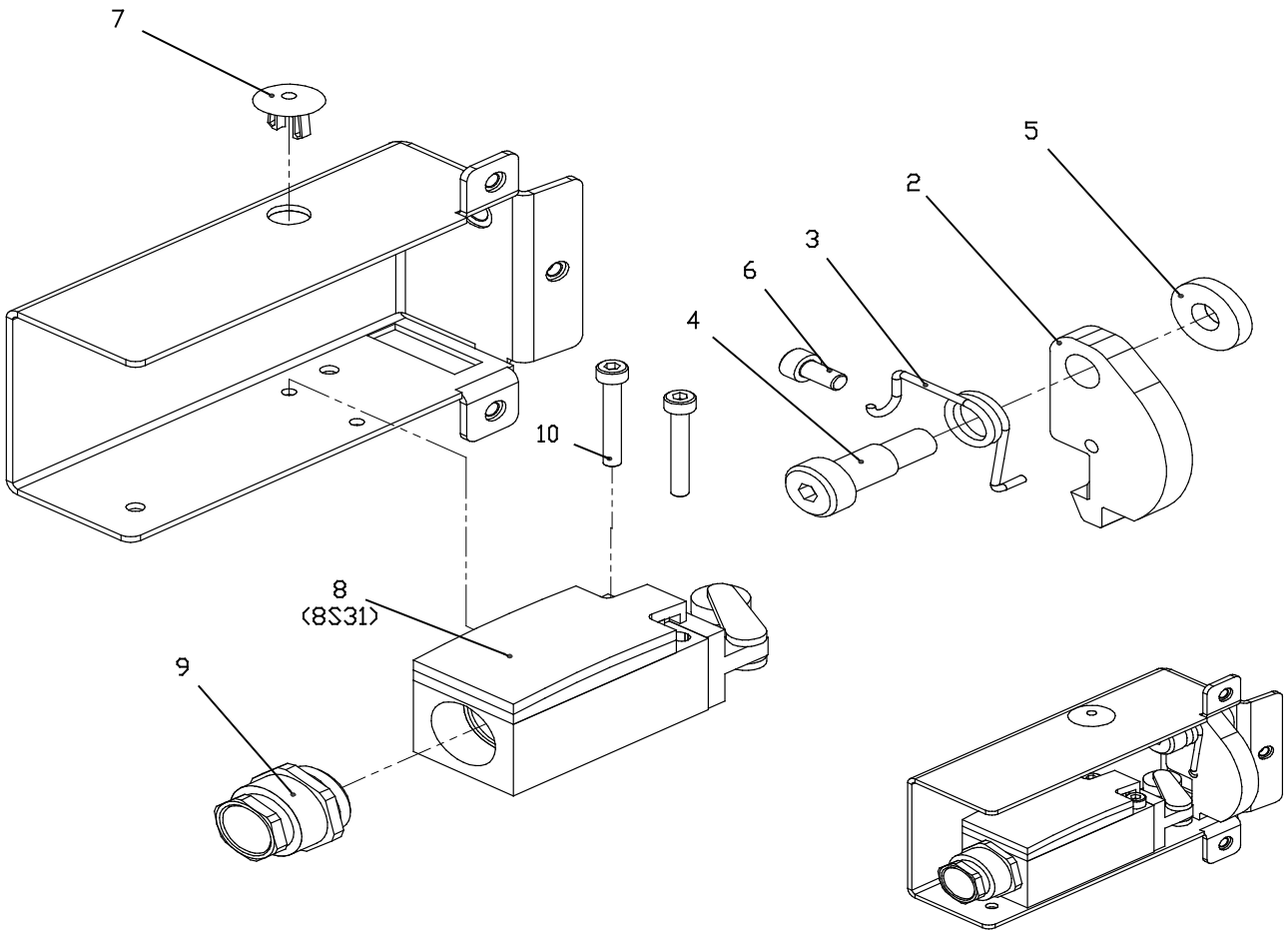

Figure 11-2

Item	Part	Description	Quantity	Note	Melter
-	7407051	Device container detection VP/VD compl.	1		
1	------	• Base plate,device container detect.VP/VD	1		
2	------	• PLATE,INTIATOR VX DEVICE CONT.DETECTION	1		
3	------	• Leg spring d2xDi11 n=2,25 VP/VD	1		
4	------	• TIGHT-FIT SCREW ISO7379 M8X16 D10/12.9	1		
5	------	• WASHER,FLT,M,REG,8,SSTL	1		
6	------	• SCR,SKT,M5X10,BL	1		
7	------	• Cover black D9,5-11	1		
8	7140289	Position switch, roller lever IP66	1		
9	------	Cable gland membrane M20x1,5	1		
10	------	SCR, SKT, M4X30, BL	2		

Pail Clamp

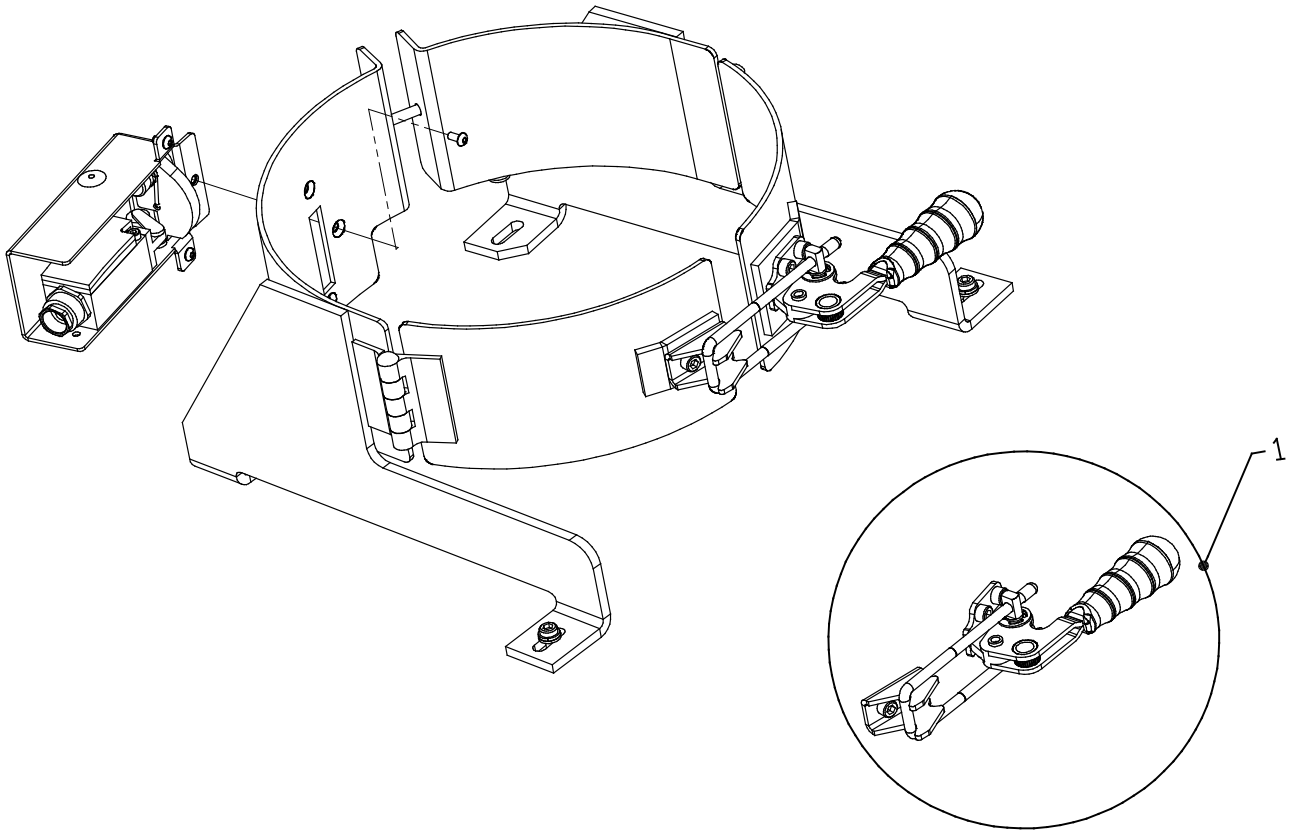

Figure 11-3

Item	Part	Description	Quantity	Note	Melter
-	7403813	Pail clamp VP D280/286	1		
1	7407065	SERVICE KIT,PAIL CLAMP LATCH,ALTA PAIL II	1		

Device, Platen Position Inquiry

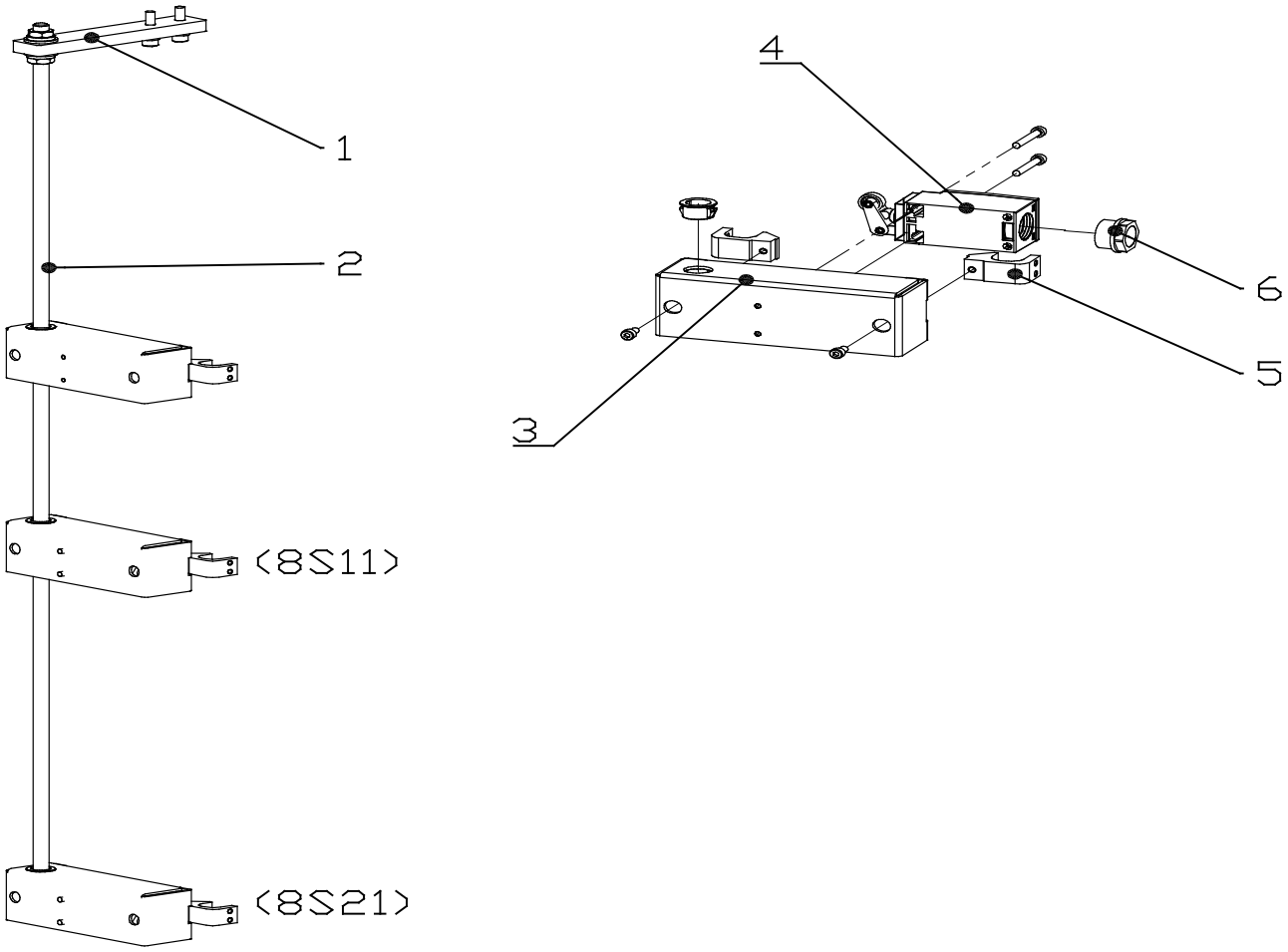

Figure 11-4

Item	Part	Description	Quantity	Note	Melter
1	------	PLATE,POSITION SWITCH MOUNTING	1		
2	------	• CONTACT MAKER BAR L810 M10	1		
3	------	• PLATE, MOUNTING POSITION SWITCH	1		
4	7140289	• Position switch, roller lever IP66	1		
5	------	• Mounting kit BT16	2		
6	------	• Cable gland, membrane M20x1,5	1		

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Platen Assembly

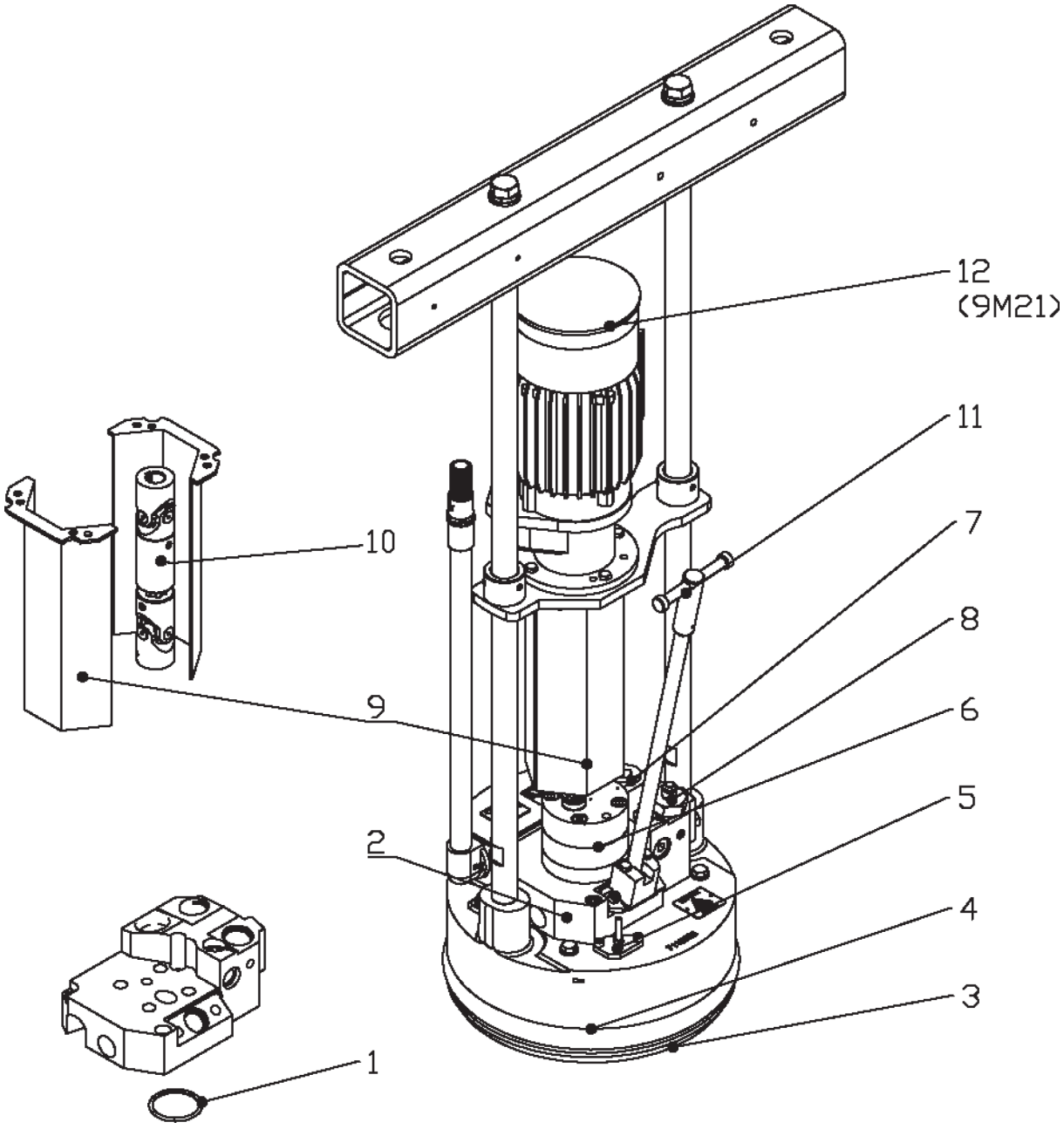

Figure 11-5

Item	Part	Description	Quantity	Note	Melter
1	250273	o-ring 44x3 Viton	1		
2	7407066	SERVICE KIT,ADAPTER,ALTA PAIL II	1		
3	7116858	melting plate,smooth,VP,GP,D280,VX	1		7407039 7407041 7407664 7407666
	7116879	melting plate,smooth,VP,GP,D286,VX	1		7407040 7407042 7407665 7407667 7407668 7407669
	7116860	Melting plate, axial, VP, GP, D286, VX	1		7407670 7407671
4	7407068	SERVICE KIT,SEAL,PLATEN, 280MM, 5 GALLON	1		7407039 7407041 7407664 7407666
	7407069	SERVICE KIT,SEAL,PLATEN, 286MM, 5 GALLON	1		7407040 7407042 7407665 7407667 7407668 7407669 7407670 7407671
5	7403823	PLUG ASSY,PUNCH,ALTAPAIL II O-RING 11x2 VITON	1		
6	729107	gear pump SN0773	1		7407041 7407042 7407666 7407667 7407668 7407669 7407670 7407671
	729106	gear pump SN0371	1		7407039 7407040 7407664 7407665
7	973591	PLUG,O RING,STR THD,1 1/16-12	1		
8	7403875	hose connect.ftg.a9/16UNF-a1 1/16UNF	1		
9	---	protection cover VP coupling	2		
10	7403865	Shaft Joint,Extractable Type:2ga D12,7	1		
11	7403871	deaeration handle VP/VD	1		
12	7407067	SERVICE KIT,MOTOR, BG06-31/D06LA4-TOF-D/UL	1		

Platen

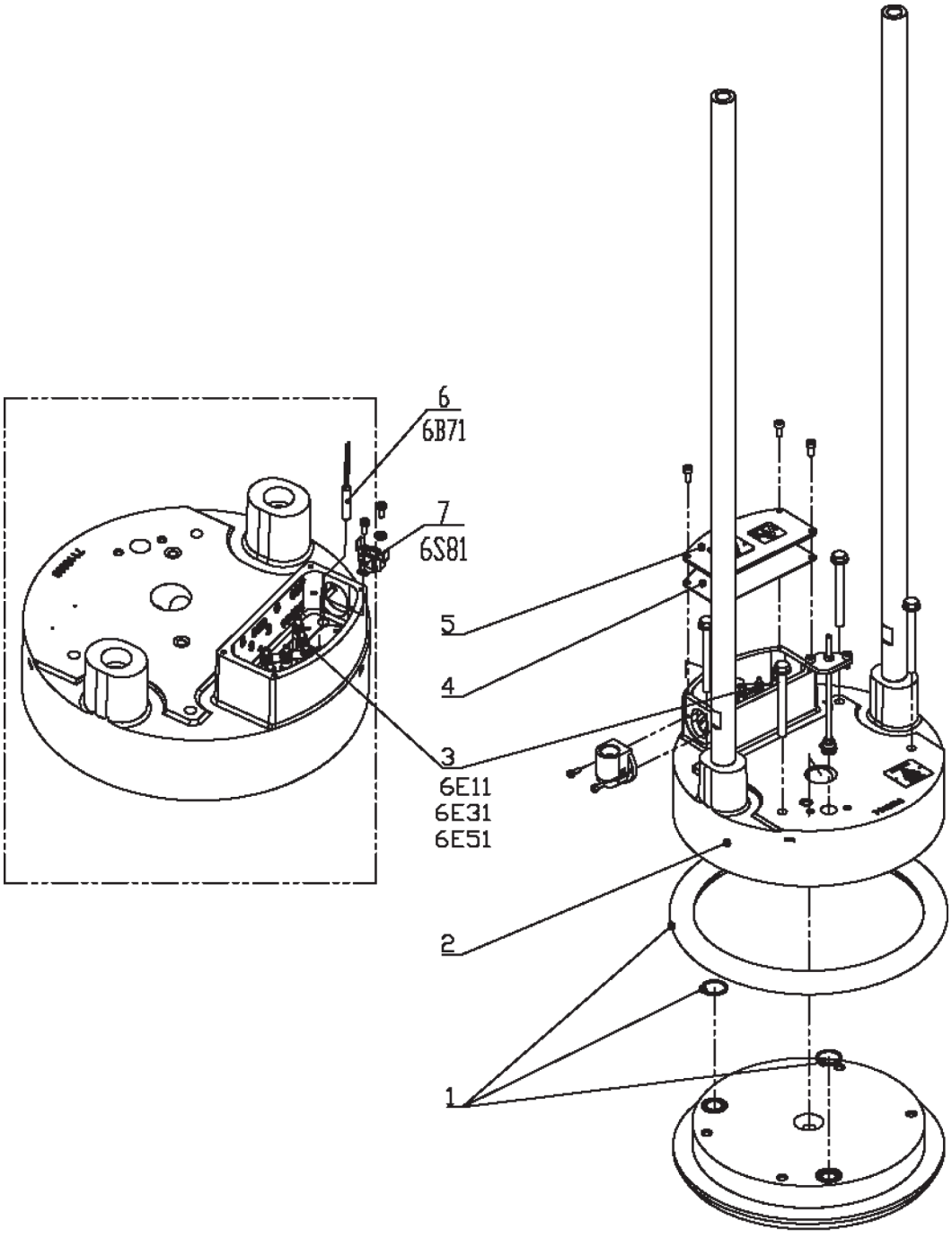

Figure 11-6

Item	Part	Description	Quantity	Note	Melter
1	7407068 250263 ------	SERVICE KIT,SEAL,PLATEN, 280MM, 5 GALLON o-ring 22x2 viton Seal, Platen, 280mm, 20 Liter, TES	1 2 1		7407039 7407041 7407664 7407666
	7407069 250263 ------	SERVICE KIT,SEAL,PLATEN, 286MM, 5 GALLON o-ring 22x2 viton Seal, Platen, 280mm, 5 Gallon, TES	1 2 1		7407040 7407042 7407665 7407667 7407668 7407669 7407670 7407671
2	7116633	Heating punch VP/DP, GP, VX	1		
3	7140582 ------ ------ ------ ------ ------	**SERVICE KIT Terminal connection** • Insulation cylinder M4-small • Insulation cylinder M4-big • Washer D4,3 DIN125 type A • Hexagon nut M4 DIN439 B V2A • Serrated lock washer D4,3 DIN6798 A	1 6 6 12 12 6		
4	7403942	• INTERLEAVER,INSULATION,PUNCH,ALTAPAI L II	1		
5	7403864	• Electric cover,heating punch VP/DP	1		
6	120167	• RTD,TEMP SENSOR 1/4X1.25NICKEL	1		
7	7126361	• THERMOSTAT 210°C,24V,1A,FASTON 90°	1		7407039 7407040 74007041 7407042 7407668 7407669
	7126362	• THERMOSTAT 260°C,24V,1A,FASTON 90°	1		7407664 7407665 7407666 7407667 7407670 7407671
NS:	Not Shown				

Melting Plate

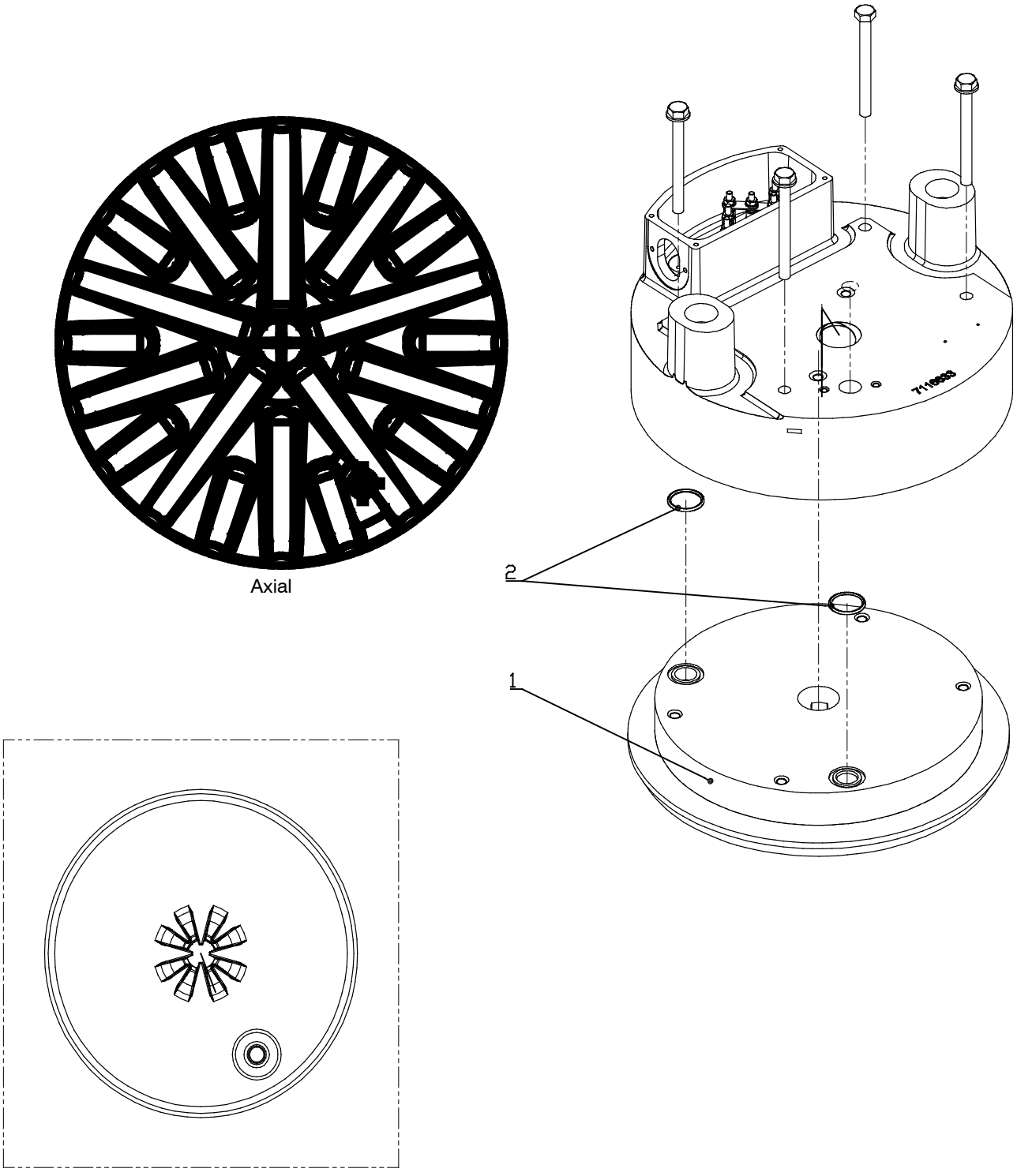

Figure 11-7

Item	Part	Description	Quantity	Note	Melter
1	7116879	MELTING PLATE, SMOOTH, VP, GP, D286, VX	1	Smooth	7407065 7407067 7407068 7407069
2	250263	O-RING 22x2 VITON	2		

Item	Part	Description	Quantity	Note	Melter
1	7116858	MELTING PLATE, SMOOTH, VP, GP, D280, VX	1	Smooth	7407039 7407041 7407664 7407666
2	250263	O-RING 22x2 VITON	2		

Item	Part	Description	Quantity	Note	Melter
1	7116860	MELTING PLATE, AXIAL, VP, GP, D286, VX	1	Axial	7407670 7407671
2	250263	O-RING 22x2 VITON	2		

Aeration (Manual)

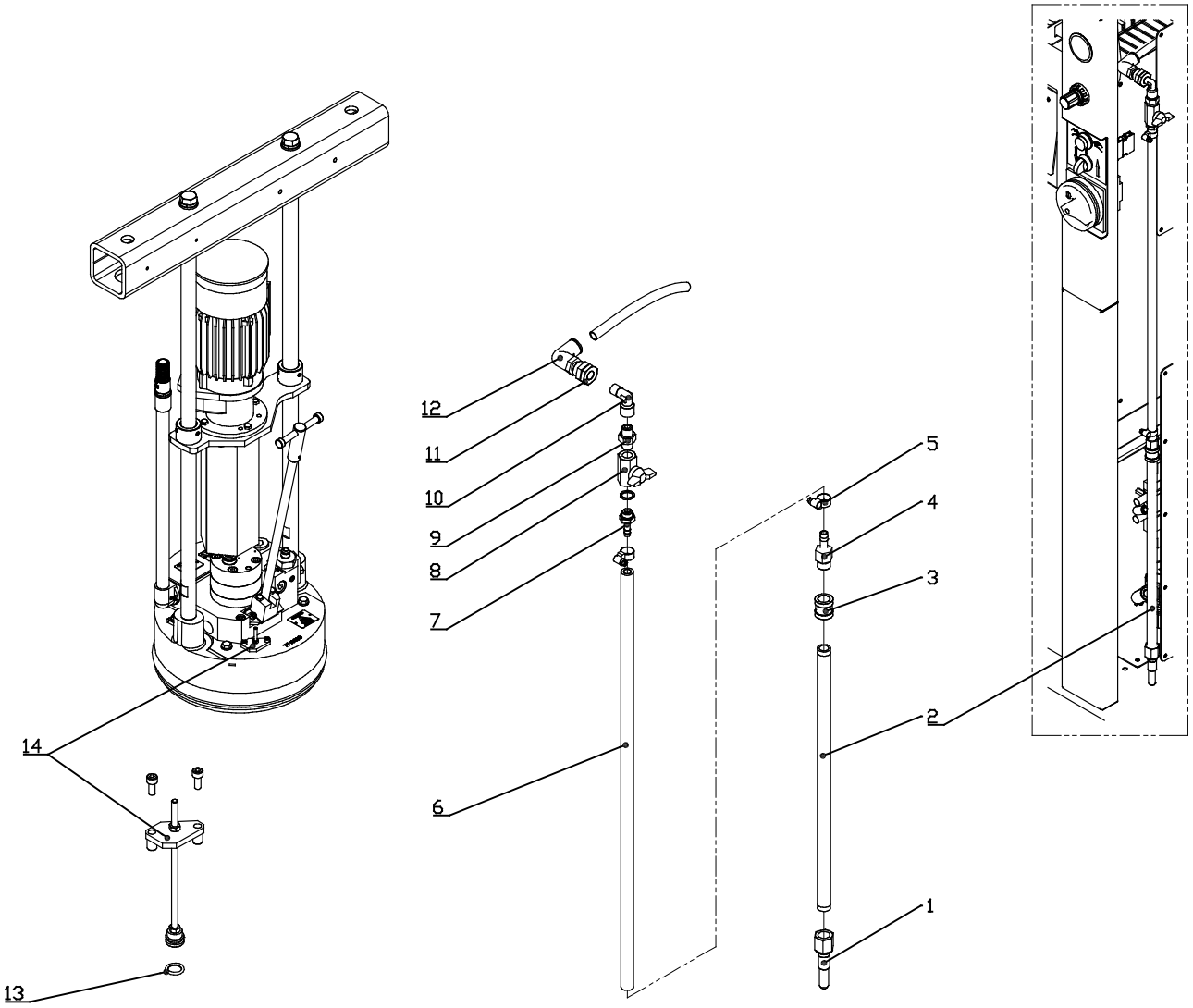

Figure 11-8

Item	Part	Description	Quantity	Note	Melter
------	7407070	SERVICE KIT,AERATION MANUAL,ALTAPAIL II	------		
1	------	AERATION PIPE,MANUAL AERATION	1		
2	------	PIPE,DOUBLE END R3/8",L=400	1		
3	------	PIPE CONNECTOR,STRAIGHT,i=G3/8",i=G3/8"	1		
4	------	BARB FITTING,SWIVEL,G3/8",Di=9,L=54	1		
5	------	hose clamp D10-16/9 DIN3017	1		
6	------	hose grey type:801-9,5	0.7M		
7	------	BARB FITTING,G1/4 MALE, Di=9,L=38	1		
8	------	ball valve 2ways iG1/4-iG1/4 DN8 PN10	1		
9	------	double nipple aR1/4-aR1/4	1		
10	------	quick thread-in fitting -W-d06-G1/8-TURN	1		
11	------	bulkhead connection iG1/4	1		
12	------	PUSH IN FITTING, QSL-1/4-12	1		
------	7407071	SERVICE KIT,PUNCH PLUG,ALTAPAIL II	------		
13	------	PLUG ASSY,PUNCH,ALTAPAIL II	1		
14	------	O-RING 11x2 VITON	1		
AR: As Required					

Deaeration

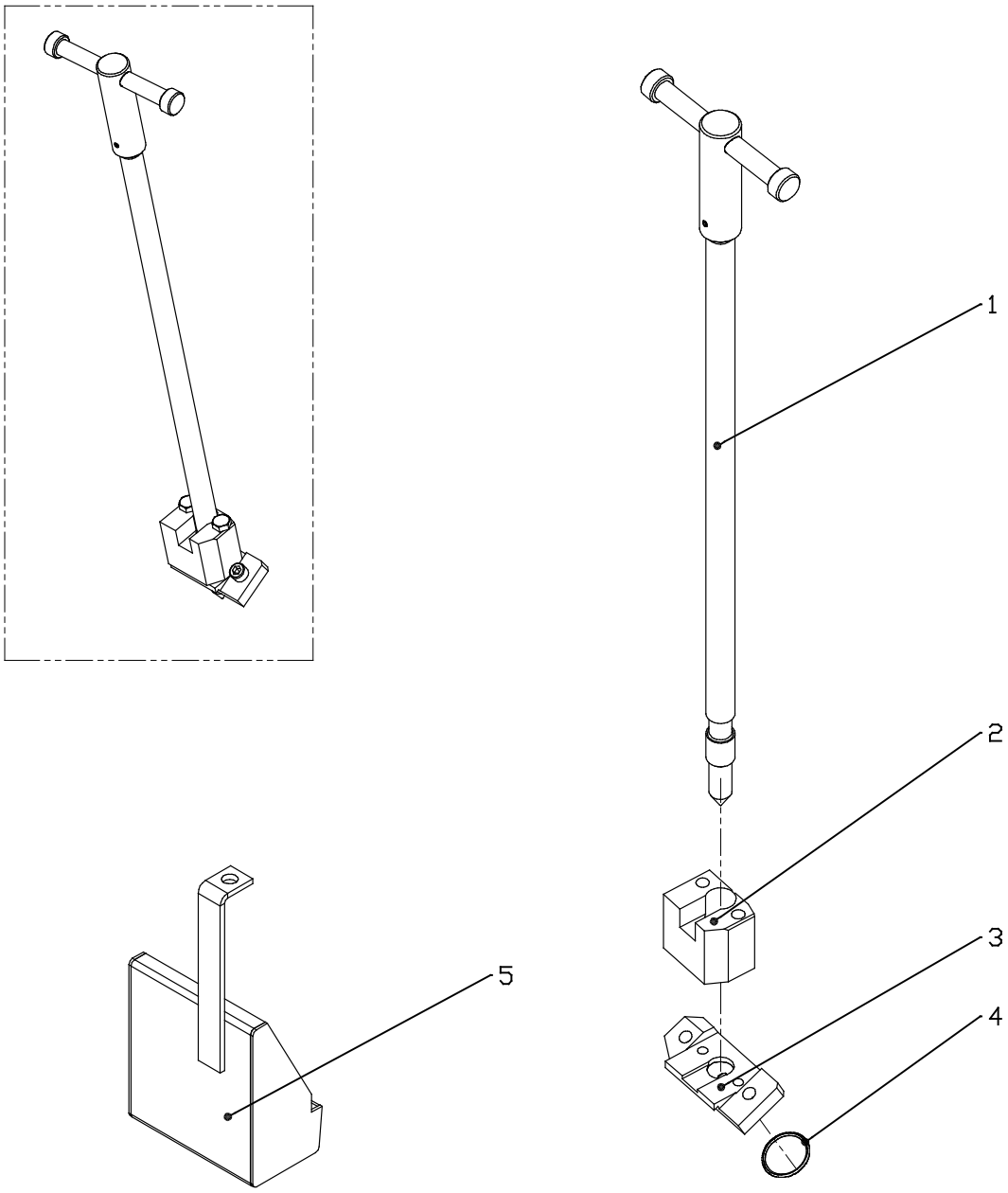

Figure 11-9

Item	Part	Description	Quantity	Page	Melter
1	7403871	Deaeration handle VP/VD	1		
2	7403868	bracket deaeration plug VP/VD SN	1		
3	7403869	seat f.deaeration plug VP/VD SN small	1		
4	401566	O-ring 21x1,5 Viton	1		
5	7403849	Catch pan VP VX	1		

Safety Valve (Adapter Plate)

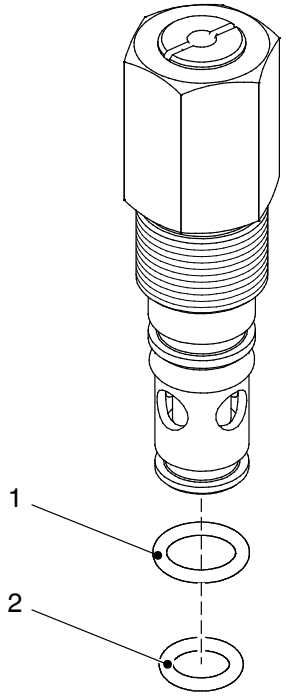

Figure 11-10

Item	Part	Description	Quantity	Note	Melter
-	203419	Safety valve 100bar VB/DB fix	1		
1	- - - - -	• O-ring 11x2	1		
2	- - - - -	• O-ring 9x2	1		
-	394592	**SERVICE KIT,SAFETY VALVE**	1		
1	- - - - -	• O-ring 11x2	1		
2	- - - - -	• O-ring 9x2	1		
-	- - - - -	• high-temp.grease GLS 595/N2 can:10g	1	NS	
NS:	Not Shown				

Pressure Control Valve

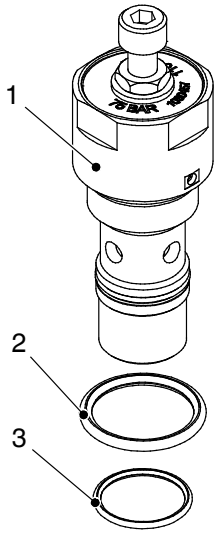

Figure 11-11

Item	Part	Description	Quantity	Page	Melter
------	1031222	**SERVICE KIT PCV**	1		
1	------	• VALVE,PCV,1100 PSI	1		
2	940201	• O RING,VITON,.864ID X .070W,BR	1		
3	945035	• O RING,VITON,7/8 TUBE	1	NS	
NS: Not Shown					

Gear Pump

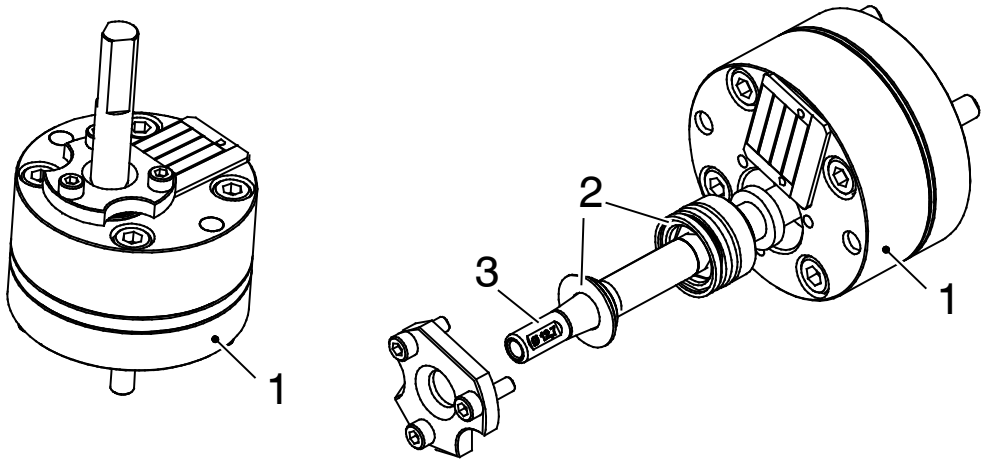

Figure 11-12

Item	Part	Description	Quantity	Note	Melter
1	729107	Gear pump SN0773	1		7407041 7407042
	729106	Gear pump SN0371	1		7407039 7407040
-	394589	**SERVICE KIT**	1		
-	- - - - -	• O-ring 10x1,5	1		
-	- - - - -	• Sealing paste ”Stucarit” 203 10ml	1		
-	- - - - -	• High-temp. grease, GLS 595/N2, 10g	1	NS	
NS:	Not Shown				

Pump Sealing Kits & Assembly Tools for Variseal Pumps

NOTE: The assembly tools are used to slide new seals over the shaft journal and the pump shaft pulley key groove without damaging the seals.

Item	Part	Description	Quantity	Note	Melter
2	7136920	**Sealing Kit**	1		
3	7136915	**Assembly Tool & Instructions**	1		

Machine Feet / Casters

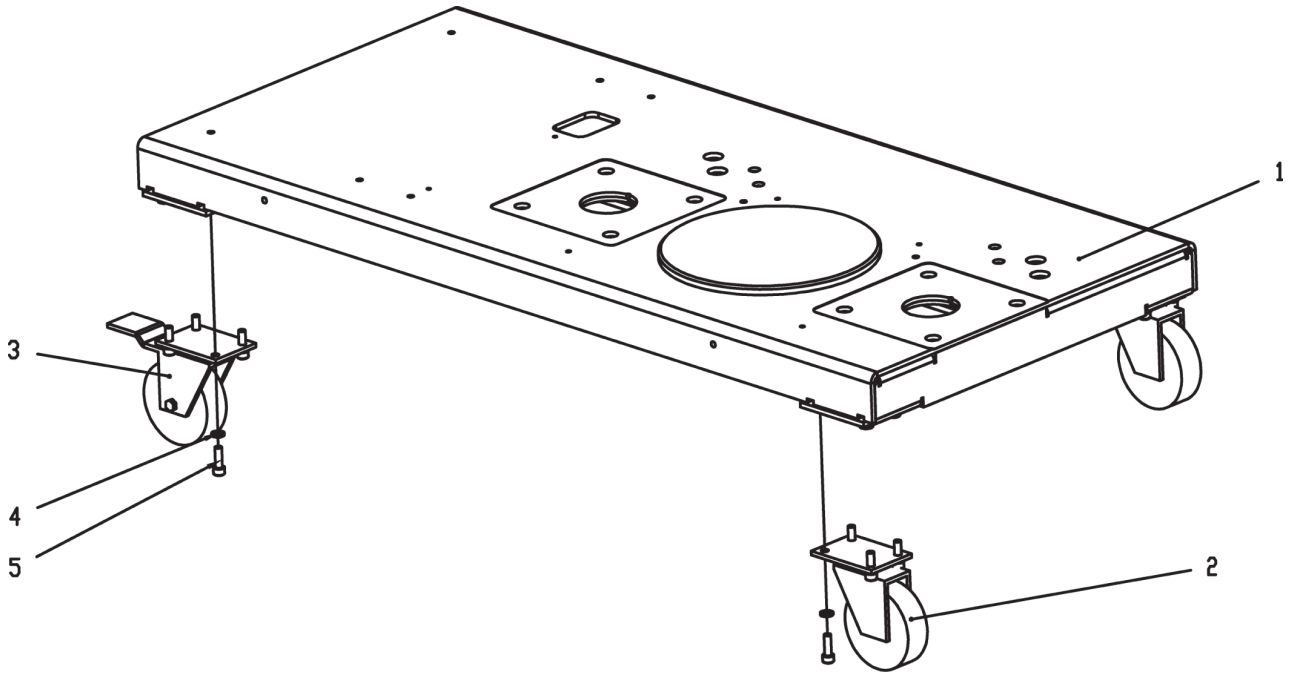

Figure 11-13

Item	Part	Description	Quantity	Note	Melter
1	------	BASE,ALTA PAIL	1		
------	7407072	SERVICE KIT,CASTOR,ALTAPAIL II	------	Includes 4 casters	
2	------	CASTOR, SWIVEL,100MM, 130KG	2		
3	------	CASTOR, BRAKING,100MM, 130KG	2		
4	------	WASHER,LK,M,SPT,M8,STL,ZN	16		
5	------	SCR,SKT,M8X1.25X25,BL	16		

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Pneumatic Components

Tower

Pneumatic Control

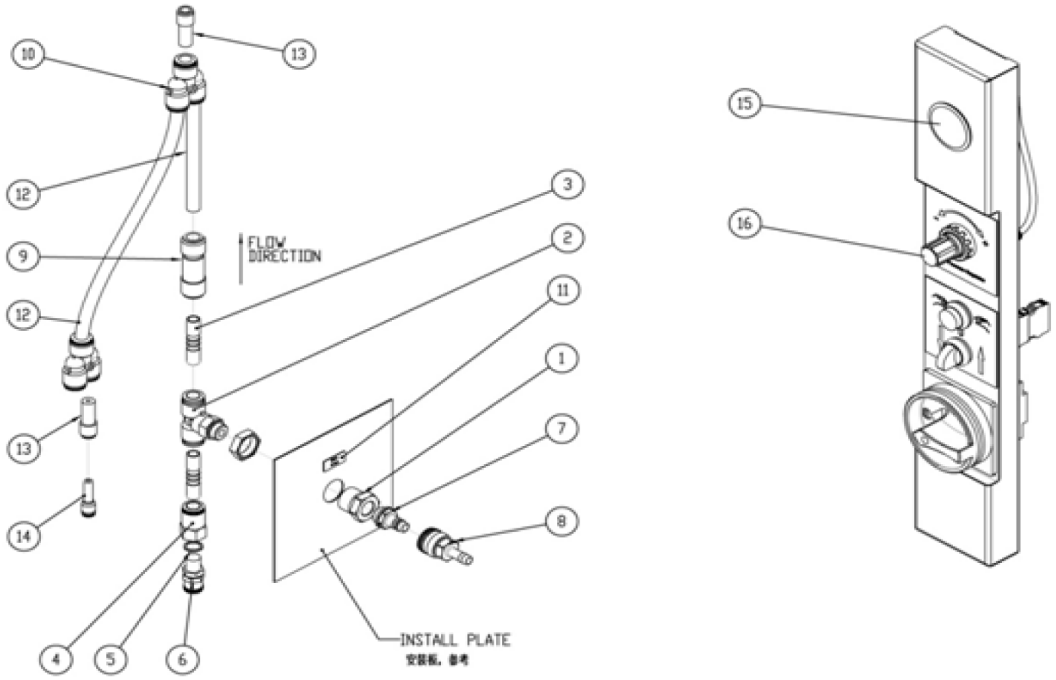


Figure 11-14

Item	Part	Description	Quantity	Page	Melter
1	7403930	BULKHEAD CONNECTION iG3/8	1		
2	------	TEE, 12MM X 3/8" M, BR-PVC	1		
3	------	PUSH IN SLEEVE,QSH-12	2		
4	------	FITTING,FEMALE G1/4,D12	1		
5	------	sealing ring R1/4 type:PDR-14	1		
6	7140261	safety valve 8bar G1/4 SW17	1		
7	7403931	MALE AIR COUPLING KS4-3/8-A	1		
8	7403932	FEMALE AIR COUPLING KD4-N-9	1		
9	7403936	CHECK VALVE,D12,L=70.2	1		
10	------	UNION,Y,12MM	1		
11	7140255	sign "max. 8 bar" self adhesive	1		
12	------	TUBING,PU,12MMODX1MM,BLACK(FLOW AIR)	2.5M		
13	------	PUSH IN SLEEVE,D12-D08,SMC	1		
14	779876	GAUGE,AIR,PANEL MT,0-1MPA,1/4"M BACK-P	1		
15	7403938	REGULATOR,0-1.0MPA,1/4" PORT	1		

Pneumatic Panel - Pneumatic Component Designation

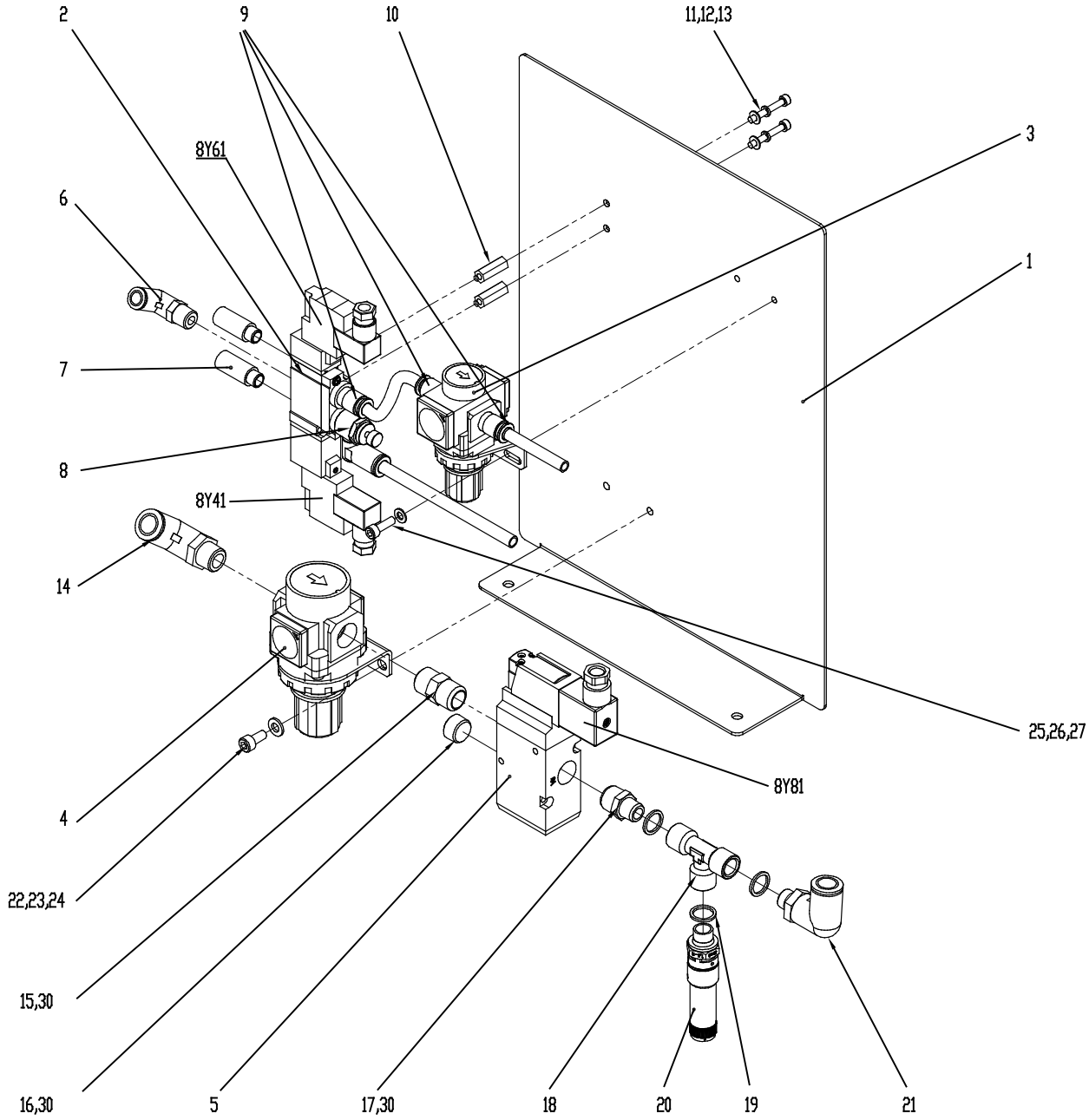


Figure 11-15

Item	Part	Description	Quantity	Page	Melter
1	------	INTALL PANEL,PNEUMATIC	1		
2	7403910	SOLENOID VALVE,3/5WAYS	1		
3	7403915	REGULATOR,0-1.0MPA,1/4" PORT, W/GAUGE	1		
4	7403912	REGULATOR,0-1.0MPA,3/8" PORT, W/GAUGE	1		
5	7403911	SOLENOID VALVE,2/3WAYS	1		
6	------	ELBOW, 8MM X 1/4", BR-PVC	1		
7	------	SILENCER,R1/8	2		
8	7403914	SPEED CONTROL VALVE,R1/4,D8	1		
9	------	FITTING,PUSH IN,MALE,QS-1/4-8-I	3		
10	------	SPACER,8mmHEX,M5X22mmLG,STL,THRU THD.	2		
11	------	SCR,SKT,M4X30,BL	2		
12	------	WASHER, FLT, M4, ZP	2		
13	------	WASHER,LK,M,SPT,M4,STL,ZN	2		
14	------	ELBOW,12MM X 3/8",BR - PVC	1		
15	------	NIPPLE,ZG3/8",MALE - ZG3/8",MALE,SS	1		
16	------	PLUG,HEX SOCKET,3/8"	1		
17	------	NIPPLE,ZG3/8",MALE - ZG1/4",MALE,SS	1		
18	------	T-piece 3xiRp1/4	1		
19	------	sealing ring R1/4 type:PDR-14	3		
20	785733	safety valve 1,0bar 1/4	1		
21	------	PUSH IN FITTING,QSL-1/4-12	1		
22	------	SCR,HEX,M6X12,STL,ZN,GR8.8,GB5783-2000	2		
23	------	WASHER,LK,M,INT,M6,STL,ZN	2		
24	------	WASHER,FLT,M,REG,M6,STL,ZN	2		
25	------	SCR,SKT,M5X16,BL	2		
26	------	WASHER,FLT,M,REG,5,STL,ZN	2		
27	------	WASHER,LK,M,SPT,M4,STL,ZN	2		
28	------	air-operated hose D8,0 d6,0 PU blue			

Pneumatic Schematic

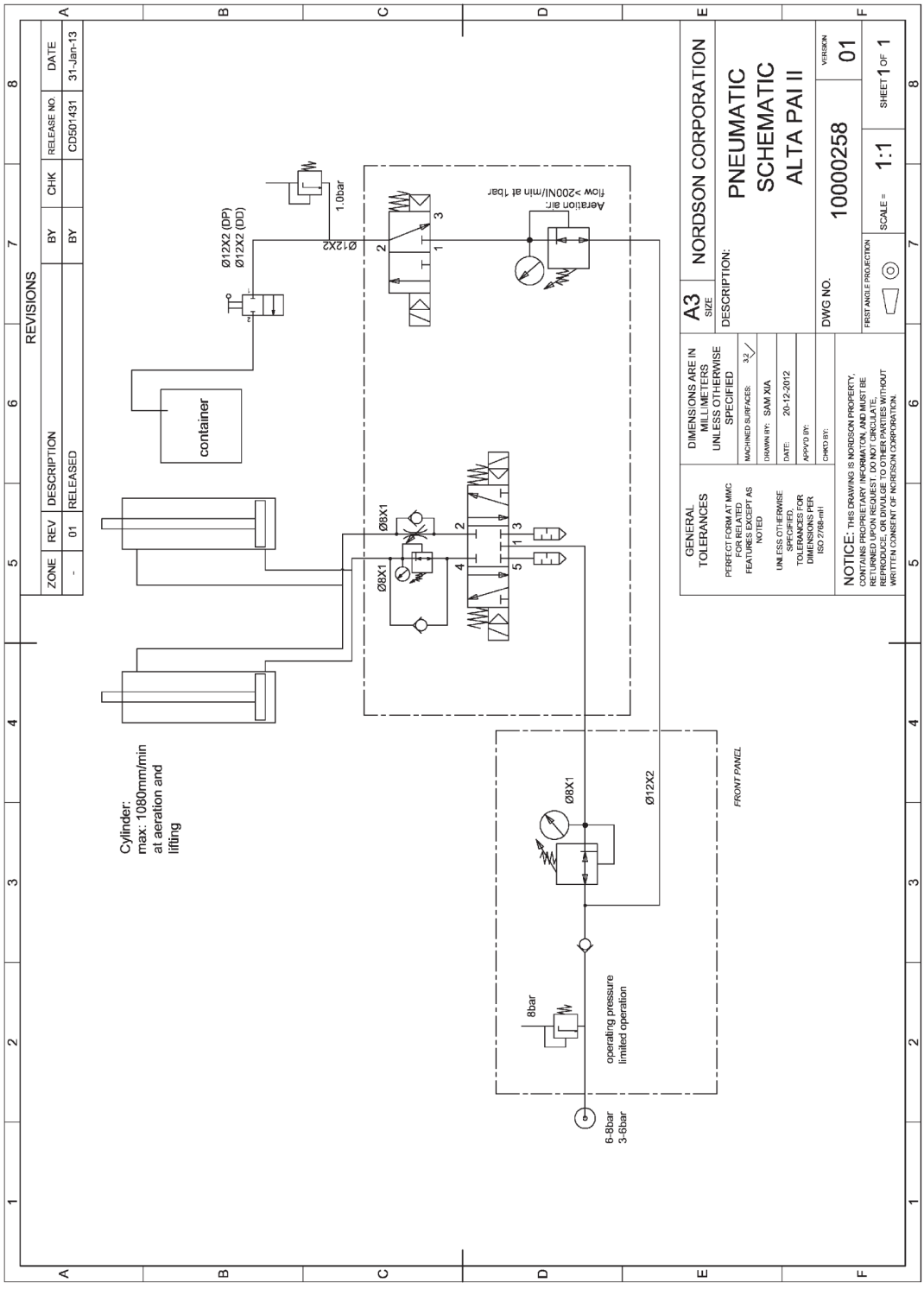


Figure 11-16 Based on 7140614

Warning Labels

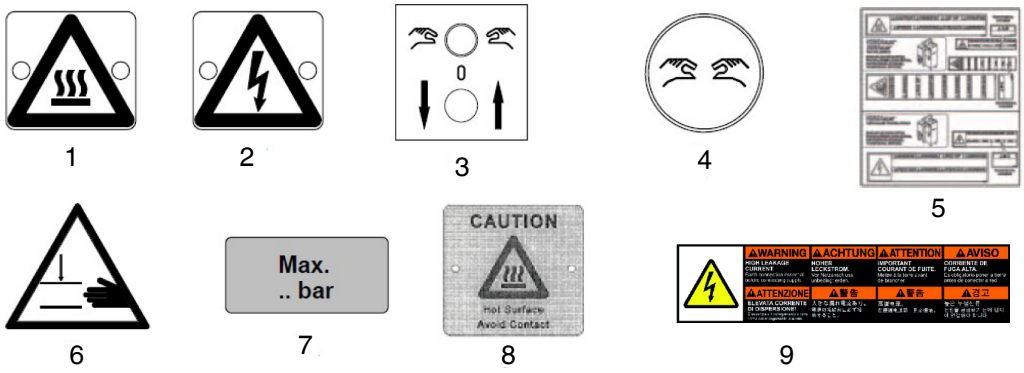


Figure 11-17

Item	Part	Description	Quantity	Note	Melter
1	408437	Sign, heat output,general	1		
	291387	Blind rivet cl.end 3,2x6,5 DIN7337	2		
2	290083	Sign, dangerous voltage	1		
	291387	Blind rivet cl.end 3,2x6,5 DIN7337	2		
3	7403851	Sign, lifting O lowering self–adhesive	1		
4	7403937	Sign, two–hand control, self–adhesive	1		
5	1100254	TAG, CAUTION, HOT SURFACE	1		
	1024720	TAG, WARNING, HOT ADHESIVE	1		
	1025795	TAG,WARNING,HAZARDOUS VOLTAGE	1		
	1059866	TAGS,SHEET OF ,VERSA/DURABLUE LG,CE LANG	1		
6	421460	Sign, warning hand injury	1		
7	7140255	Sign ”Max. 8 bar” self adhesive	1		
8	7150828	Sign,hot surface,general UL	1		
	255289	NOTCHED TAPER PIN 1,7x4 DIN1476	2		
9	1120127	TAG, WARNING, HIGH LEAKAGE CURRENT	1		

Electrical Components

▶ **STANDARD** Wiring Diagram P/N 10000256

Outside Electrical Cabinet

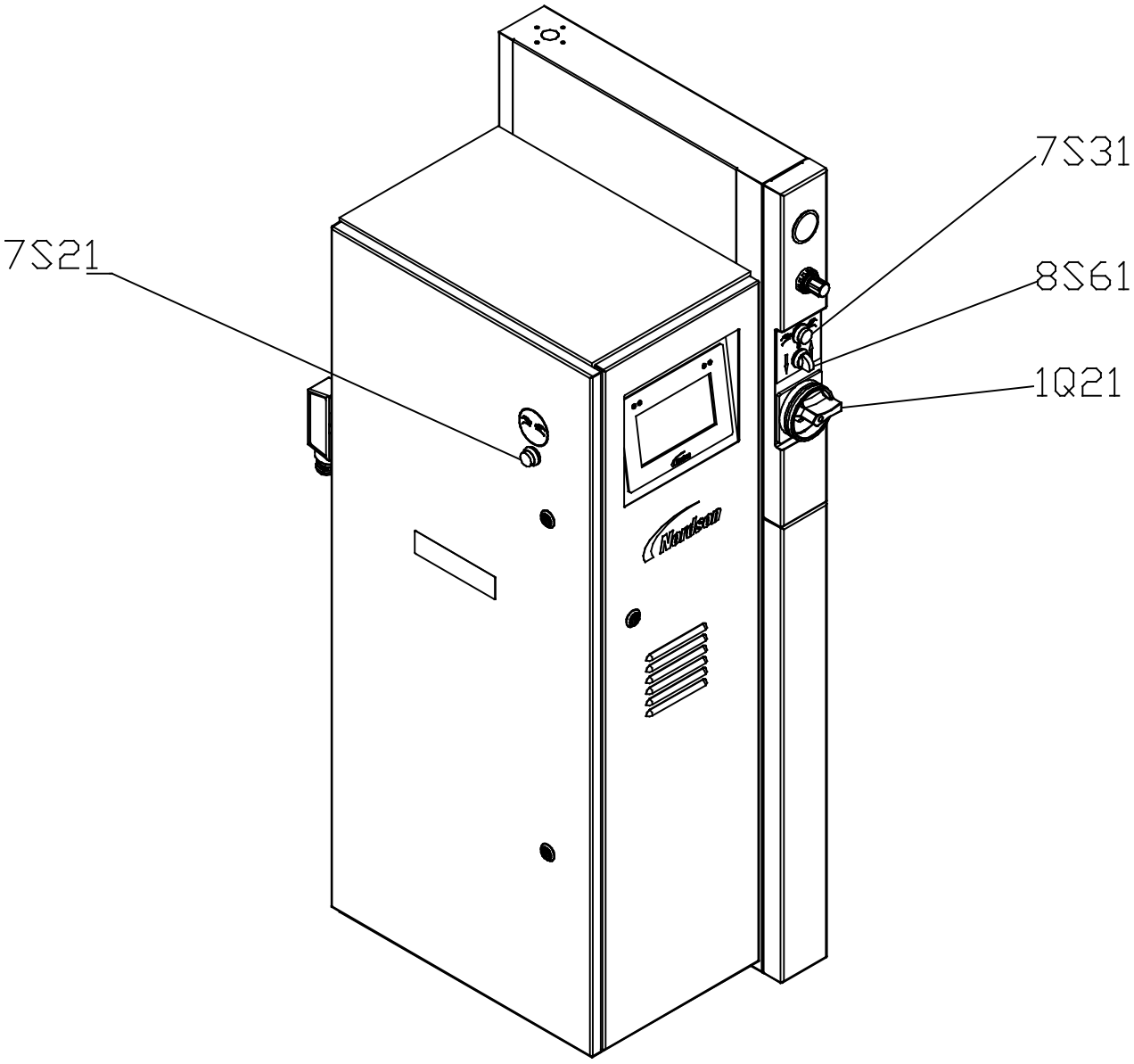


Figure 11-18

Item	Part	Description	Quantity	Note	Melter
7S21 7S31	7126179	push-button black M22-DH-S	1		
	460768	mounting adapter type:M22-A	1		
	460769	contact block type:M22CK10	1		
	460770	contact block type:M22CK01	1		
8S61	207585	selector switch type:M22-WRLK3-G	1		
	460768	Mounting adapter type:M22-A	1		
	460769	contact block type:M22CK10	3		
	460770	Contact block type:M22CK01	2		
1Q1	253639	Main switch 3x32A / red/yellow	1		

Electrical Enclosure panel Assemblies

Back Panel

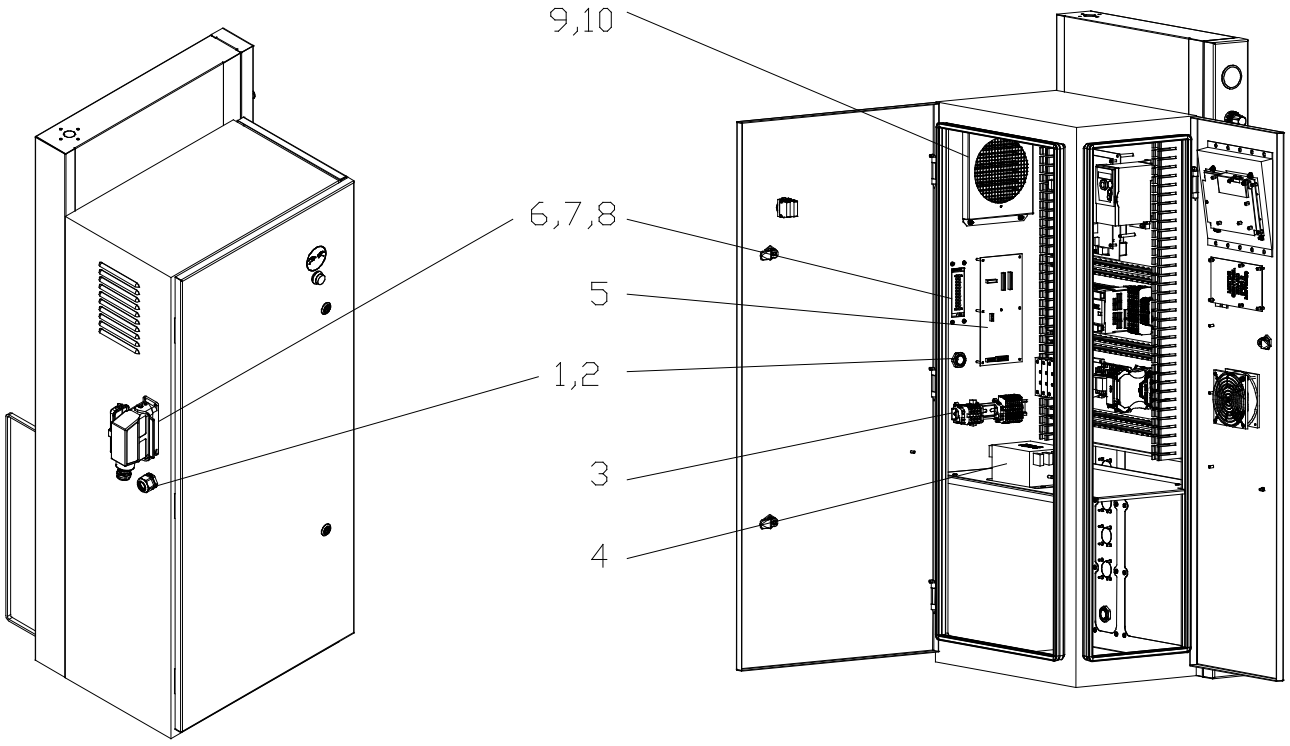
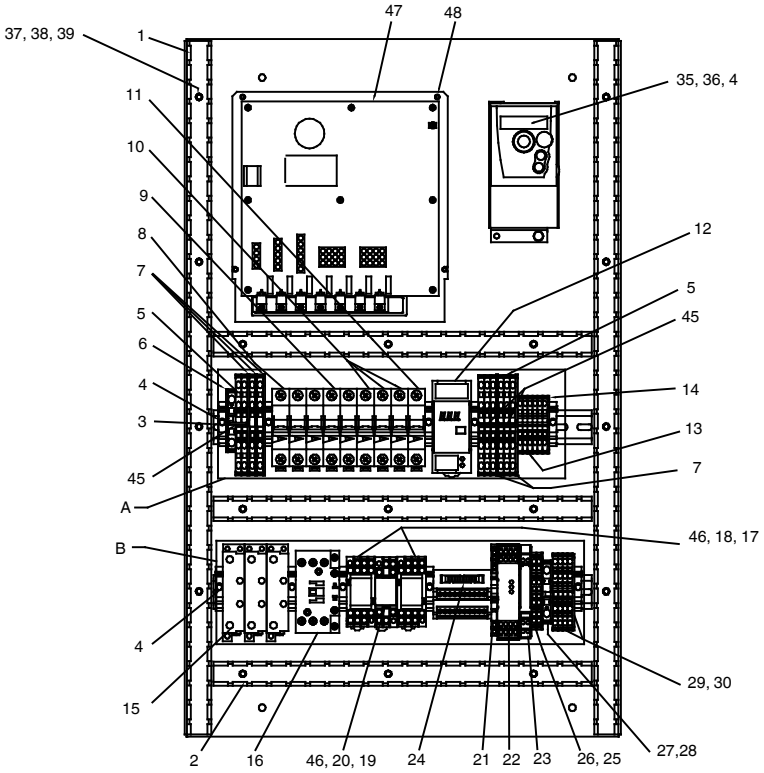


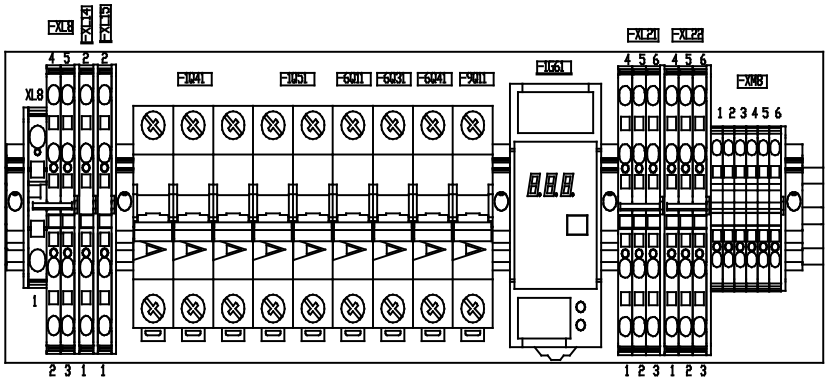
Figure 11-19

Item	Part	Description	Quantity	Note	Melter
1	7403833	STRAIN RELIEF,CABLE,M25x1,5,PA,BLACK	1		
2	7403834	NUT,CABLE GLANDE,M25x1,5,BLACK	2		
3	------	TEMINAL BLOCK	1		
4	7403803	MAIN FILTER,440VAC,36A,3P+N+PE	1		7407039 7407040 7407041 7407042 7407664 7407665 7407666 7407667
	7407682	MAIN FILTER,480VAC,30A,3P+PE	1		7407668 7407669 7407670 7407671
5	1031201	SVCE KIT,DURABLUE,EXPANSION PCA	1		
6	7403798	CONNECTOR,SOCKET,24 PIN,W/COVER	1		
7	7403799	CONNECTOR,INSERT,24 PIN,MALE	1		
8	7403800	CONNECTOR PLUG,24 PIN,3 IN 1	1		
9	------	PANEL,COVER,FILTER	1		
10	7401321	SERVICE KIT,FILTER,FAN,ELECT.CAB	1		

Back Panel (400V)



Detail View A
Scale 1:1



Detail View B
Scale 1:1

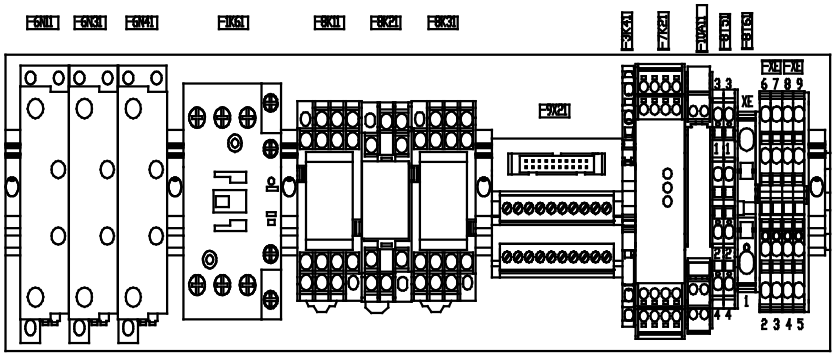
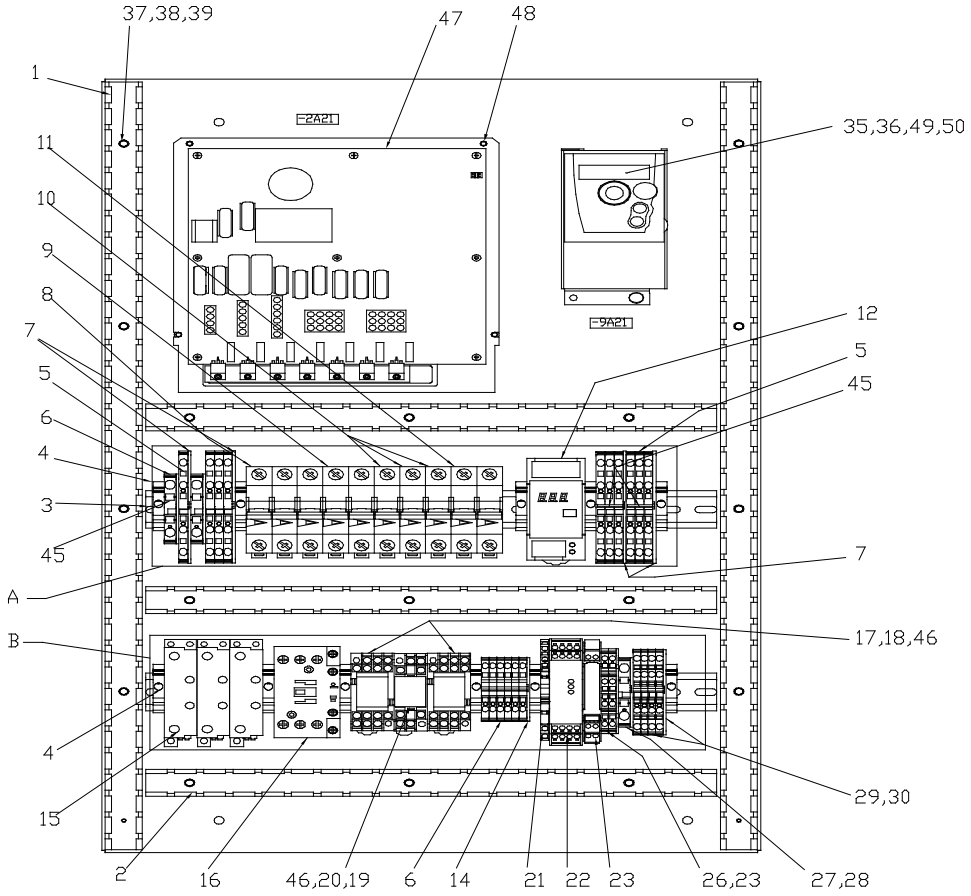


Figure 11-20

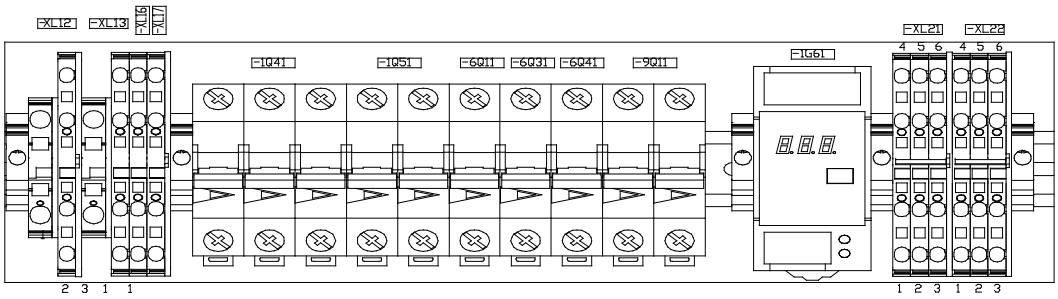
Item	Part	Description	Quantity	Note	Melter
1	------	STOCK WIREWAY 25X65 ALTABLUE	1.5		
2	------	STOCK WIREWAY 25X65 ALTABLUE	1.2		
3	------	RAIL,DIN 35mm×7.5mm	0.8		
4	------	END STOP,TERMINAL BLOCK	11		
5	------	TERMINAL BLOCK,ZDU 4/4AN	10		
6	------	terminal block,pot.distributor ZEI 6	1		
7	------	TERMINAL BLOCK,END PLATE,ZAP/TW4/4AN	15		
8	256144	circuit breaker 32A 3-pole FAZ-B32/3	1		
9	254251	circuit breaker 10A 2-pole FAZ-C10/2	1		
10	251364	circuit breaker 16A 1-pole FAZ-B16/1	3		
11	457659	circuit breaker 16A 1-pole FAZ-D16/1	1		
12	7403805	SWITCHING POWER SUPPLY 230V/N/24V,120W	1		
13	------	TERMINAL BLOCK ZDU 2,5	6		
14	------	TERMINAL BLOCK,END PLATE ZAP/TW1	1		
15	207397	solid-state relay G3PE 100-260V MAX. 25A	3		
16	7116738	Contactor DILM17-10(230V50/60HZ)	1		
17	777403	RELAY. DPDT, 24VDC,MY4N/24VDC	2		
18	777630	BASE, RELAY (OMRON)	2		
19	777404	REALY,DC24V,MY2NJ	1		
20	777395	BASE, RELAY, DPDT,	1		
21	7104924	relay coupler 24VDC	1		
22	7403812	TWO HAND RELAY,24VDC,PSR-THC4	1		
23	1053122	MODULE,CONDITIONER,SIGNAL,0-10V,1K ohm	1		
24	------	BOARD,BREAKOUT,VIP-2/SC/FLK20,TB,20POS	1		
25	------	terminal block XLPE DP/DD	2		
26	------	terminal-end-plate ZAP/TW ZDK2,5/1,5	1		
27	------	TERMINAL BLOCK ZPE 6	1		
28	------	TERMINAL BLOCK,END PLATE ZAP/TW5	1		
29	------	terminal block ZPE 2,5/4AN	4		
30	------	terminal block,end plate ZAP/TW3	1		
32	------	SCR,BTN,SKT,M5X10,ZN	4		
33	------	WASHER,FLT,M,REG,M5,STL,ZN	4		
34	------	WASHER,LK,M,SPT,M5,STL,ZN	4		
35	7402954	MOTOR DRIVE, 1PH, 240V, 1HP,ATV312H	1		
36	------	NUT,HEX W/EXT TOOTH WASHER,M4	2		
37	------	WASHER,FLT,M,REG,M3,ZINC PLATE	17		
38	------	WASHER,LK,M,SPT,M3,STL,ZN	17		
39	------	NUT,ACORN,M3,STL,ZN	17		
40	------	RAIL,DIN 35mm×7.5mm	0.2M		

Item	Part	Description	Quantity	Note	Melter
41	------	HEXNUT,FLANGED,SERRATED,M5	6		
45	------	TERMINAL,CONNECTOR,ZQV 4N/3 GE	3		
46	------	CLIP,RELAY	6		
47	1078624	Service Kit, DURABLUE, Main, PCA	1		
48	------	SCR,PAN,REC,W/WASHER,M4X10,ZN	4		
49	------	SPACER SLEEVE, ALTABLUE	4		

Back Panel (240V)



DETAIL VIEW A



DETAIL VIEW B

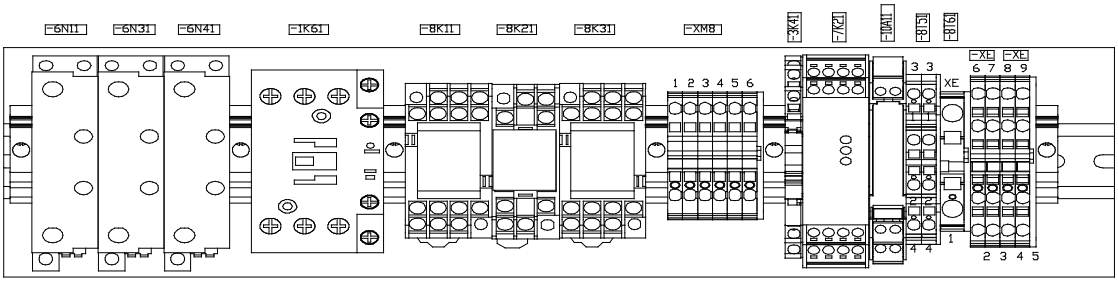


Figure 11-21

Item	Part	Description	Quantity	Note	Melter
	7407678	BACK PLATE, CABINET ASSY, 240V,ALTAPAIL II			
1	------	STOCK WIREWAY 25X65 ALTABLUE	1.5		
2	------	STOCK WIREWAY 25X65 ALTABLUE	1.2		
3	------	RAIL,DIN 35mm×7.5mm	0.8		
4	------	END STOP,TERMINAL BLOCK	11		
5	------	TERMINAL BLOCK,ZDU 4/4AN	10		
6	------	terminal block,pot.distributor ZEI 6	2		
7	------	TERMINAL BLOCK,END PLATE,ZAP/TW4/4AN	6		
8	256144	circuit breaker 32A 3-pole FAZ-B32/3	1		
9	254251	circuit breaker 10A 2-pole FAZ-C10/2	1		
10	251364	circuit breaker 16A 1-pole FAZ-B16/1	3		
11	7131129	circuit breaker 16A 2-pole FAZ-D16/2	1		
12	7403805	SWITCHING POWER SUPPLY 230V/N/24V,120W	1		
13	------	TERMINAL BLOCK ZDU 2,5	6		
14	------	TERMINAL BLOCK,END PLATE ZAP/TW1	1		
15	207397	solid-state relay G3PE 100-260V MAX. 25A	3		
16	7403070	MAIN CONTACTER DILM40C	1		
17	777403	RELAY. DPDT, 24VDC,MY4N/24VDC	2		
18	777630	BASE, RELAY (OMRON)	1		
19	777404	REALY,DC24V,MY2NJ	1		
20	777395	BASE, RELAY, DPDT,	2		
21	7104924	relay coupler 24VDC	1		
22	7403812	TWO HAND RELAY,24VDC,PSR-THC4	1		
23	1053122	MODULE,CONDITIONER,SIGNAL,0-10V,1K ohm	1		
25	------	terminal block XLPE DP/DD	2		
26	------	terminal-end-plate ZAP/TW ZDK2,5/1,5	1		
27	------	TERMINAL BLOCK ZPE 6	1		
28	------	TERMINAL BLOCK,END PLATE ZAP/TW5	1		
29	------	terminal block ZPE 2,5/4AN	4		
30	------	terminal block,end plate ZAP/TW3	1		
32	------	SCR,SKT,M5X10,BL	4		
33	------	WASHER,FLT,M,REG,M5,STL,ZN	4		
34	------	WASHER,LK,M,SPT,M5,STL,ZN	4		
35	7402954	MOTOR DRIVE, 1PH, 240V, 1HP,ATV312H	1		
36	------	NUT,HEX W/EXT TOOTH WASHER,M4	2		
37	------	WASHER,FLT,M,NARROW,M3,STL,ZN	17		
38	------	WASHER,LK,M,SPT,M3,STL,ZN	17		
39	------	NUT,ACORN,M3,STL,ZN	17		
40	------	RAIL,DIN 35mm×7.5mm	1		

Item	Part	Description	Quantity	Note	Melter
45	7407450	TERMINAL,CONNECTOR,ZQV 4N/ 2 GE	2		
46	------	CLIP,RELAY	6		
47	1078624	Service Kit, DURABLUE, Main, PCA	1		
48	------	SCR,PAN,REC,W/WASHER,M4X10,ZN	4		
49	------	SPACER SLEEVE, ALTABLUE	4		
50	------	Ferrite core f.round cable 7,8-8,5mm	1		
51	------	CLAMP, BRACKET, GROUNDING, CABLE	1		
52	------	BRACKET, GROUNDING, CABLE, ALTABLUE 10	1		

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Front Panel

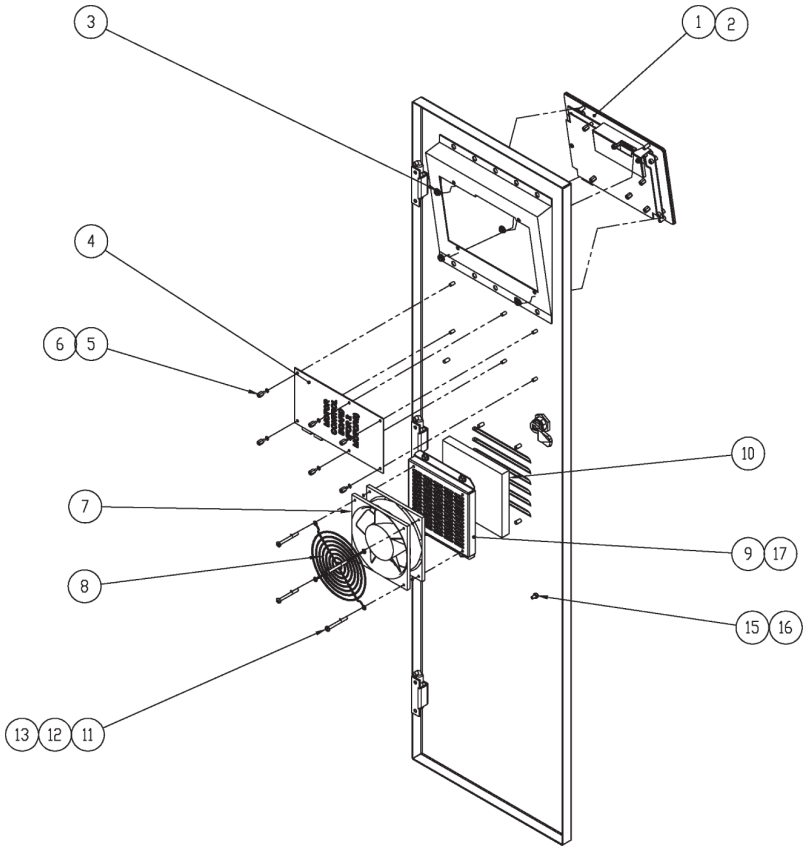

Figure 11-22

Item	Part	Description	Quantity	Note	Melter
1	7407073	SERVICE KIT,LCD MODULE,ALTAPAIL II	1		7407039 7407040 7407041 7407042 7407668 7407669
	7407683	SERVICE KIT,LCD MODULE, 232°C,ALTAPAIL II	1		7407664 7407665 7407666 7407667 7407670 7407671
2	1107260	BATTERY,COIN CELL,3.0V,24MM,LITHIUM	1		
3	------	HEXNUT,FLANGED,SERRATED,M5	4		
4	7403315	Service Kit,PCA Motor Control, Touch	1		
5	------	THRDSPCRMM,MALE/FEM,SS,HEX,M3,8MMLG	6		
6	------	WASHER,LK,M,INT,M3,STL,ZN	6		
------	7407074	SERV KIT,FAN,DC24V,120x120x38mm,138CFM	------		
7	------	FAN,DC24V,120x120x38mm,138CFM	1		
8	------	PLASTIC FILTER GUARD SET,FAN,FOR 120MM	1		
9	------	PLASTIC GUARD,FAN,FOR 120MM	1		
10	------	SCR,FLT,SKT,M4X55,ZN,DIN7991	4		
11	------	WASHER, FLT, M4, ZP	4		
12	------	WASHER,LK,M,SPT,M4,STL,ZN	4		
13	------	NUT,HEX,M4,STL,ZN	4		

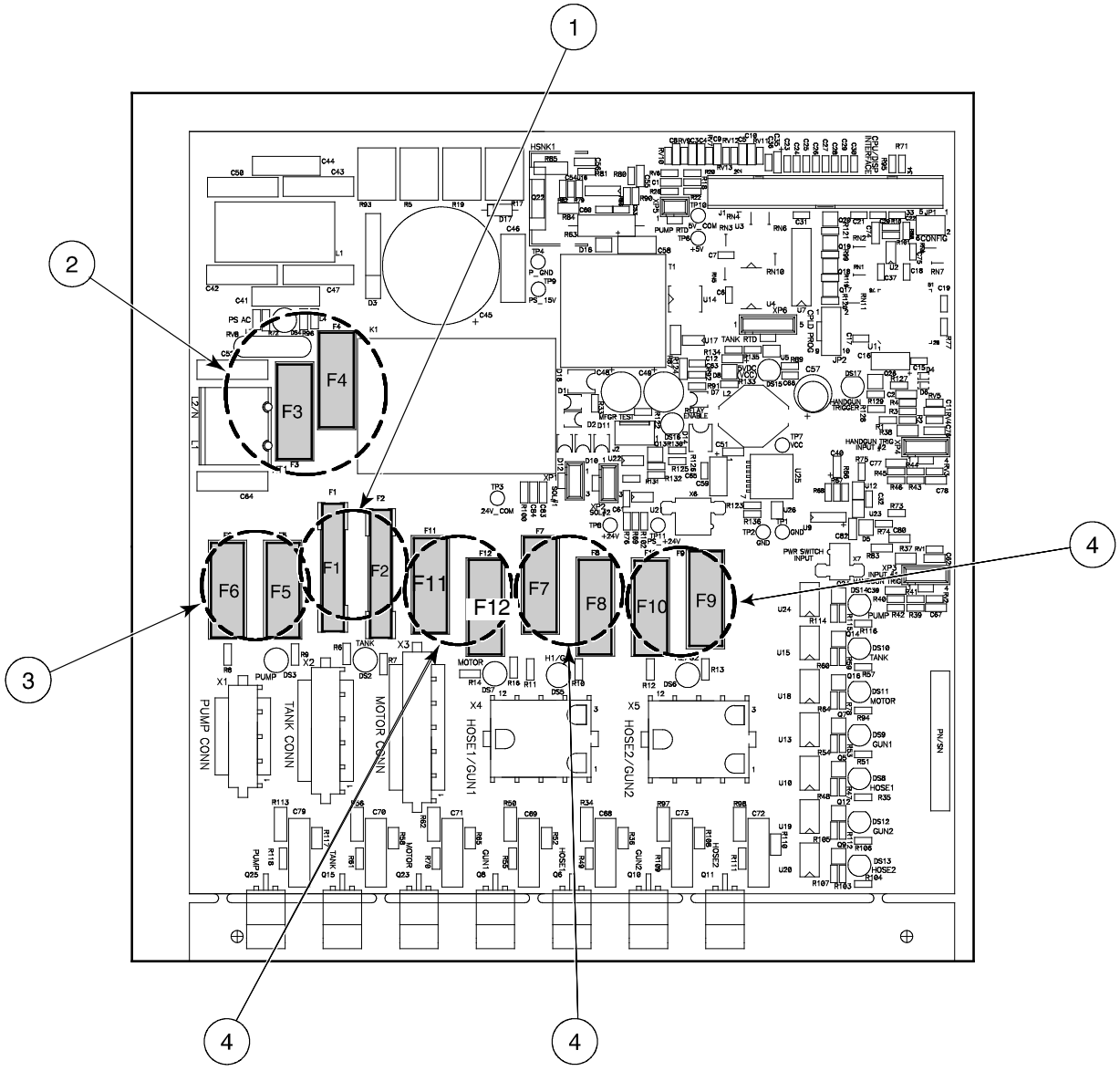

Figure 11-23

Item	Part	Description	Quantity	Note	Melter
-	1031203	**SERVICE KIT, fuses, main board**	1		
1	- - - - - -	• Fuse, fast, 10 A, 250 VAC, $^{1}/_{4}$ x $1^{1}/_{4}$ in.	2		
2	- - - - - -	• Fuse, slow, 2 A, 250 VAC, 5 x 20 mm	2		
3	- - - - - -	• Fuse, fast, 5 A, 250 VAC, 5 x 20 mm	2		
4	- - - - - -	• Fuse, 6.3 A, 250 VAC, 5 x 20 mm	6		
-	- - - - - -	• Instruction sheet	1		

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Position Switches, Motor, Configurable Items

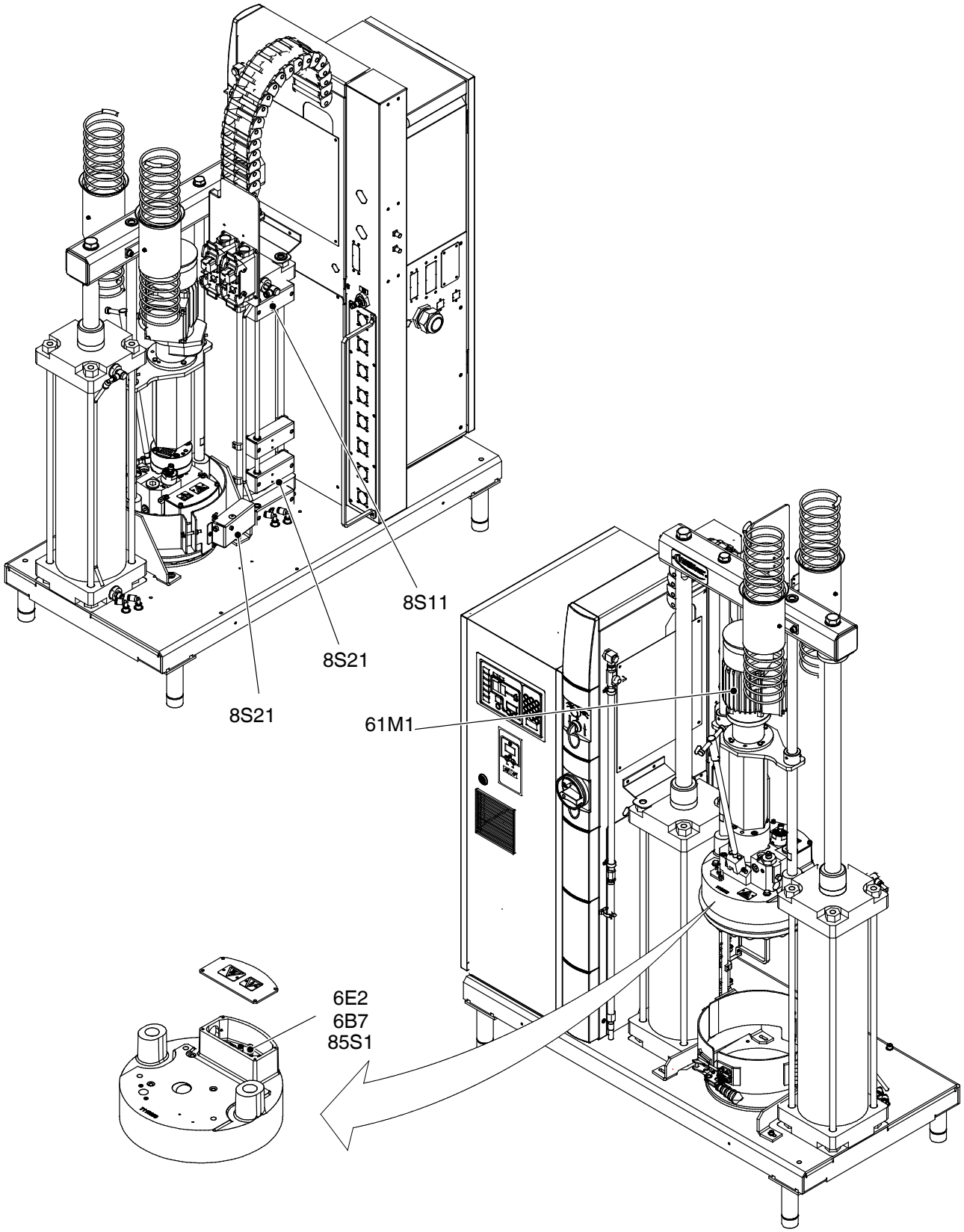


Figure 11-24

Item	Part	Description	Quantity	Note	Melter
6E2	------	Cast-in heater *Platen*			
6B7	120167	RTD,TEMP SENSOR 1/4X1.25NICKEL			
61M1	7407067	SERVICE KIT,MOTOR, BG06-31/D06LA4-TOF-D/UL	1		
85S1	7126361	THERMOSTAT 210° C,24V,1A,FASTON 90°	1		7407039 7407040 7407041 7407142 7407668 7407669
85S1	7126362	THERMOSTAT 260° C,24V,1A,FASTON 90° 1 Platen	1		7407664 7407665 7407666 7407667 7407670 7407671
8S31	7140289	Position switch, roller lever IP66	1		
8S21	7140289	Position switch, roller lever IP66	1	Top edge	
8S11	7140289	Position switch, roller lever IP66	1	Empty	

Interfaces and Hose Receptacles

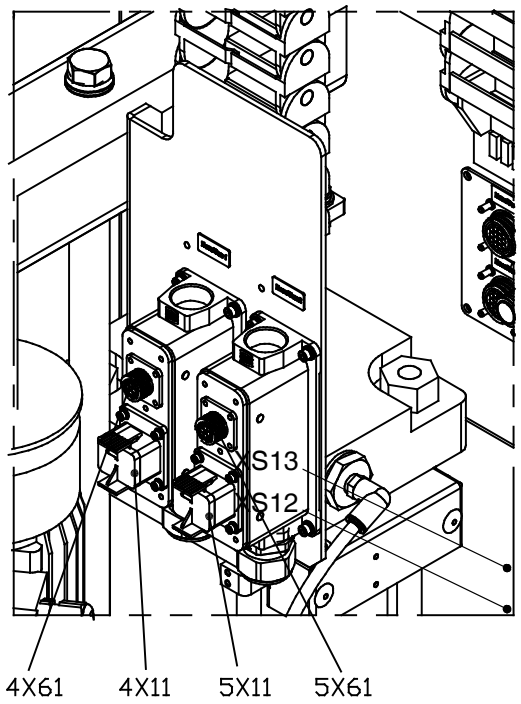


Figure 11-25

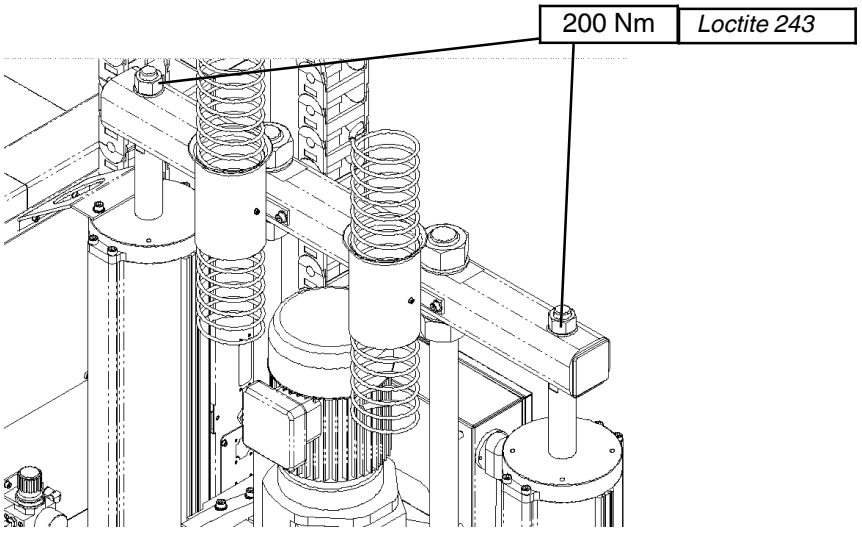
Item	Part	Description	Quantity	Note	Melter
4X11 4X61 5X11	7403810	HARNESS,PAIL,HOSE/APPLICATOR 1/2,INTERNAL	1		
5X61	7403811	HARNESS,PAIL,HOSE/APPLICATOR 1/2,EXTERNAL	1		

Service Kits

Pressure Cylinders

Item	Part	Description	Quantity	Note	Melter
—	7140192	**SERVICE KIT** Seals & O-rings for pressure cylinders P/N 7403857	1	A	

NOTE A: Allow only qualified personnel to replace service parts. Follow the safety instructions here and in the entire documentation. Observe the final torques:



Exhaust Hood

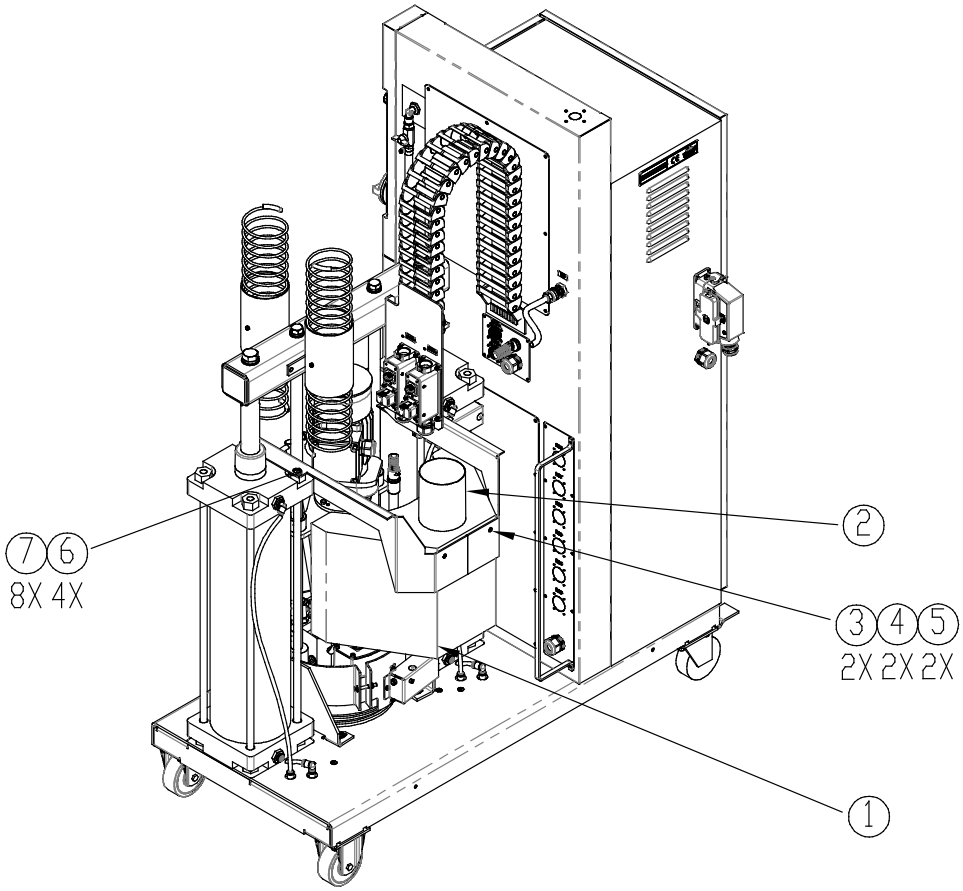


Figure 11-26

Item	Part	Description	Quantity	Note	Melter
—	7407684	KIT EXHAUST HOOD,ALTAPAIL II	1		
1	------	container,exhaust hood VP/DP	1		
2	------	bracket exhaust hood VP	1		
3	------	SCR,SKT,M8X20,ZN	2		
4	------	WASHER,FLT,M,REG,M8,STL,ZN	2		
5	------	LOCKWASHER,M8	2		
6	------	SECHSKANTSCHRAUBE M16 X 30 DIN933 8.8 VZ	4		
7	------	WASHER,FLT,REG.M16,STL,ZI	8		
8	------	BOX,HOPPER & HM	1		

Recommended Spare Parts

Item	Description
7140582	SERVICE KIT Terminal connection
394589	SERVICE KIT,gear pump, single
1031201	SVCE KIT,DURABLUE,EXPANSION PCA
1078624	Service Kit, DURABLUE, Main, PCA
7403315	Service Kit,PCA Motor Control, Touch
7407065	SERVICE KIT,PAIL CLAMP LATCH,ALTA PAIL II
7407066	SERVICE KIT,ADAPTER,ALTA PAIL II
7407067	SERV KIT,MOTOR ,BG06-31/D06LA4-TOF-D/UL
7407068	SERVICE KIT,SEAL,PLATEN, 280MM, 5 GALLON
7407069	SERVICE KIT,SEAL,PLATEN, 286MM, 5 GALLON
7407691	SERVICE KIT,SEAL,AXIAL PLATEN, 286MM
7407070	SERVICE KIT,AERATION MANUAL,ALTAPAIL II
7407071	SERVICE KIT,PUNCH PLUG,ALTAPAIL II
7407072	SERVICE KIT,CASTOR,ALTAPAIL II
7407073	SERVICE KIT,LCD MODULE,ALTAPAIL II
1107260	BATTERY,COIN CELL,3.0V,24MM,LITHIUM
7407074	SERV KIT,FAN,DC24V,120x120x38mm,138CFM
7407051	DEVICE,CONTAINER DETECTION VP/VD COMPL.
7140289	Position switch, roller lever IP66
7403813	PAIL CLAMP VP D280/286
250273	O-RING 44x3 Viton
250252	O-RING 11x2 VITON
729107	gear pump SN0773
729106	gear pump SN0371
973591	PLUG,O RING,STR THD,1 1/16-12
7403875	hose connect.ftg.a9/16UNF-a1 1/16UNF
7403866	protection cover VP coupling
7403865	Shaft Joint,Extractable Type:2ga D12,7
250263	O-RING 22x2 viton
7116633	Heating punch VP/DP, GP, VX
7403942	INTERLEAVER,INSULATION,PUNCH,ALTAPAIL II
120167	RTD,TEMP SENSOR 1/4X1.25NICKEL
7126361	THERMOSTAT 210°C,24V,1A,FASTON 90°
7403868	bracket deaeration plug VP/VD SN
7403869	seat f.deaeration plug VP/VD SN small
401566	O-RING 21x1,5 Viton
7403849	CATCH PAN VP VX
203419	safety valve 100bar VB/DB fix
394592	SERVICE KIT,SAFETY VALVE

Continued on next page

Item	Description
1031222	SERVICE KIT PCV
940201	O RING,VITON,.864ID X .070W,BR
945035	O RING,VITON,7/8 TUBE
7140261	safety valve 8bar G1/4 SW17
7403932	FEMALE AIR COUPLING KD4-N-9
779876	GAUGE,AIR,PANEL MT,0-1MPA,1/4"M BACK-P
7403938	REGULATOR,0-1.0MPA,1/4" PORT
7403910	SOLENOID VALVE,3/5WAYS,SMC
7403915	REGULATOR,0-1.0MPA,1/4" PORT, W/GAUGE
7403912	REGULATOR,0-1.0MPA,3/8" PORT, W/GAUGE
7403911	SOLENOID VALVE,2/3WAYS,SMC
7403914	SPEED CONTROL VALVE,R1/4,D8,SMC
785733	safety valve 1,0bar 1/4
7126179	push-button black M22-DH-S
460768	mounting adapter type:M22-A
460769	contact block type:M22CK10
460770	contact block type:M22CK01
207585	selector switch type:M22-WRLK3-G
460768	mounting adapter type:M22-A
460769	contact block type:M22CK10
460770	contact block type:M22CK01
253639	main switch 3x32A RD/YE
7403833	STRAIN RELIEF,CABLE,M25x1,5,PA,BLACK
7403834	NUT,CABLE GLANDE,M25x1,5,BLACK
7403803	MAIN FILTER,440VAC,36A,3P+N+PE
7403798	CONNECTOR,SOCKET,24 PIN,W/COVER
7403799	CONNECTOR,INSERT,24 PIN,MALE
7403800	CONNECTOR PLUG,24 PIN,3 IN 1
7407074	SERVICE KIT,FAN,DC24V,120x120x38mm,138CFM
256144	circuit breaker 32A 3-pole FAZ-B32/3
254251	circuit breaker 10A 2-pole FAZ-C10/2
251364	circuit breaker 16A 1-pole FAZ-B16/1
457659	circuit breaker 16A 1-pole FAZ-D16/1
7403805	SWITCHING POWER SUPPLY 230V/N/24V,120W
207397	solid-state relay G3PE 100-260V MAX. 25A
7116738	Contractor DILM17-10(230V50/60HZ)
777403	RELAY. DPDT, 24VDC,MY4N/24VDC
777630	BASE, RELAY (OMRON)
777404	REALY,DC24V,MY2NJ
777395	BASE, RELAY, DPDT
7104924	relay coupler 24VDC

Continued on next page

Item	Description
7403812	TWO HAND RELAY,24VDC,PSR-THC4
1053122	MODULE,CONDITIONER,SIGNAL,0-10V,1K ohm
7407139	BOARD,BREAKOUT,VIP-2/SC/FLK20,TB,20POS
7402954	MOTOR DRIVE, 1PH, 240V, 1HP,ATV312H
7407682	MAIN FILTER,480VAC,30A,3P+PE
7407683	SERVICE KIT,LCD MODULE,232,ALTAPAIL II
7407684	KIT EXHAUST HOOD,ALTAPAIL II
7403070	MAIN CONTACTER DILM40C
7131129	CIRCUIT BREAKER 16A 2-POLE FAZ-D16/2
7126362	THERMOSTAT 260°C,24V,1A,FASTON 90°
7116858	MELTING PLATE,SMOOTH,VP,GP,D280,VX
7116879	MELTING PLATE,SMOOTH,VP,GP,D286,VX
7116860	melting plate,axial,VP,GP,D286,VX

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Section 12
Technical Data

General Data

Storage temperature	- 45° C to + 75 ° C	- 49 ° F to + 167 ° F	
Min. ambient temperature	- 5 ° C	23 ° F	
Max. ambient temperature	40 ° C	104 ° F	
Humidity	10 to 95 %, not condensing		
Max. operating height	3,000 m	299,923.20 cm	
Max. material pressure	100 bar	10000 kPa	1450 psi
Degree of protection	IP 54		
Noise emission 1 m away	<70 dB(A)		
Motor/pump speed	Refer to page 4-9 *Output Quantity*		

Air Consumption

Per cycle (platen up and down)	Approx. 400 standard liters

Suitable Containers

AltaPail P/N	Container diameter (interior)	Max. container height (exterior)
7407039 7407041 7407664 7407666	280 mm	475 mm
7407040 7407042 7407665 7407667 7407668 7407669 7407670 7407671	286 mm	486 mm

Exhaust Hood (Accessory)

Nominal air quantity (recommendation)	205 m^3/h
Pressure loss at nominal air quantity	Approximately 50 Pa
Connecting Sleeve	⌀ 100 mm

Temperatures

CAUTION: The temperature setting is determined by the processing temperature prescribed by the material supplier. You cannot exceed the maximum operating temperature for the system and heated components.

For Melters: 7407039, 7407040, 7407041, 7407042, 7407668 and 7407669		
Item	**Software Limit**	**System Limit**
Min. operating temperature (set point)	40 ° C	100 ° F
Max. operating temperature	176 ° C	350 ° F
Over temperature shutdown by thermostat	210 ° C	410 ° F
For Melters: 7407664, 7407665, 7407666, 7407667, 7407670 and 7407671		
Item	**Software Limit**	**System Limit**
Min. operating temperature (set point)	40 ° C	100 ° F
Max. operating temperature	232 ° C	450 ° F
Over temperature shutdown by thermostat	260 ° C	500 ° F

Temperature sensor type	Ni 120

Electrical Data

WARNING! The unit is designed for only one operating voltage. Operate only at the operating voltage shown on the ID plate.

Available Operating Voltages	240 VAC 3-phase without neutral (Delta) 400/230 VAC 3-phase with neutral (Star - WYE) 480 VAC 3-phase without neutral (Delta) NITE: 400/230 VAC is for electrical service with neutral (WYE) where the 400 VAC us a line-to-line voltage and 230 VAC is a line-to-neutral voltage.
Permitted Deviation from Operating Voltage	± 10%
Operating Voltage Frequency	50/60 Hz
Maximum Power output per Heating Channel	**NOTE:** Each receptacle supplies two heating channels 1000 W but also maximum 1200 W per receptacle Hose/Applicator, and for receptacle pairs - maximum 2000 W total per pair. **NOTE:** Pairs of receptacles: * Hose/Gun 1 * Hose/Gun 2

Rated Current / Operating Voltage

	Pairs of Receptacles *Hose/Applicator 1 Hose/Applicator 2*
	2
Operating voltage	**AltaPail**
400 V 3 Ph Y	17 A
240 V 3 Ph △	27 A
480 V 3 Ph △	14 A

Dimensions and Weights

Weight	Transformer and hood kit: 50 Kg (110 Lbs)
	Transformer and hood kit and melter: 385 Kg (847 Lbs)

Dimensions in mm

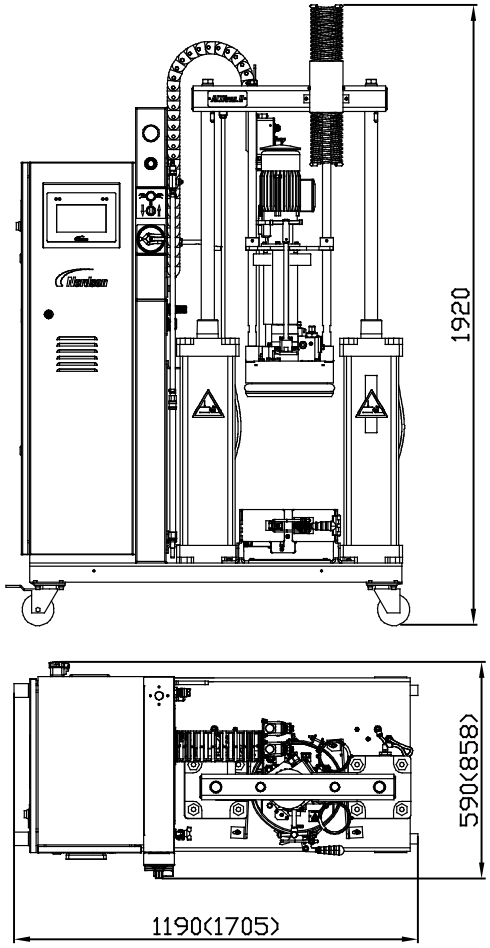

Figure 12-1 Dimensions in brackets: Space required for installation

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Appendix A

General Instructions Regarding Working with Application Materials

Definition of Terms

Application materials can be e.g. thermoplastic hot melt materials, adhesives, sealants, liquid adhesives and similar application materials. They are referred to as materials.

NOTE: The materials that may be processed with your Nordson product are described in the manual under *Intended Use* and *Unintended Use*. When in doubt, please contact your Nordson representative.

Manufacturer Information

Materials may be processed only when the manufacturer's product descriptions and Safety Data Sheets (MSDS) are observed.

They provide information, amongst other things, on correct processing of the product, transport, storage and disposal. Information regarding reactivity and potentially hazardous decomposition products, toxic properties, flash points, etc. can also be found there.

Liability

Nordson is not be liable for danger or damage resulting from the materials.

Risk of Burns

There is a risk of burns when handling heated materials. Work carefully and wear appropriate protective clothing/equipment.

Vapors and Gases

Ensure that vapors and gases do not exceed the prescribed limits. If necessary, exhaust vapors and gases and/or provide sufficient ventilation of the work space.

Substrate

The substrate should be free of dust, grease and moisture. The suitable material, optimum working conditions, and possible pre-treatment of the substrate must be determined by testing.

Processing Temperature

When materials require heating, adherence to the prescribed processing temperature is imperative to ensure the quality of the application. It may not be exceeded! Overheating can cause material coking or cracking, resulting in malfunctioning or unit failure.

Material should always be melted gently. Extended, unnecessary temperature load should be avoided. The temperature should be reduced during breaks in work. The temperature in the tank should be attuned to the material consumption. Thus it is close to the prescribed processing temperature for high material consumption and lower for lower consumption.

When materials are processed cold, take into consideration the shear heat and the ambient temperature; cool if necessary.