ISOMELT MINI

User Manual

Polígono Industrial Agustinos, calle G, nave D-34
Tel: +34.948.321.580 Fax: +34.948.326.584
31160 ORCOYEN (Navarra) ESPAÑA
e-mail:melton@melton.es
http://www.valcomelton.com

Declaration of conformity

The product: _____

Model no.: _____

Serial no.: _____

Year of manufacture:_____

Described in the enclosed documentation is in conformity with:

- Directive 2006/42/CE of 29 December 2009 replacing the Directive 98/37/EC of 22 June 1998 relating to the *approximation of the laws of the Member States relating to machinery,* combining in a single text Directives 89/392/EEC of 14 June 1989, 91/368/EEC of 20 June 1991, 93/44/EEC of June 14, 1993 and 93/68/EEC of 22 July 1993. Directive used law UNE-EN ISO12100:2012, relative to safety of the machines. Evaluate of risk, law UNE-EN 60204-1, relative to safety of the machines, laws UNE-EN 61310-1, UNE-EN 61310-2 and UNE-EN 61310-3, relative to safety in machines. Indication, marking and actuation.
- Directive 2014/35/UE of April, relating to electric equipment.
- Directive 2014/30/UE of April, relating to electromagnetic compatibility.
- Directive 93/68/EEC of July, amending Directive 73/23/EEC, and Directive 89/336/EEC.

Within the scope of the specifications indicated in the chapter describing the equipment with a B1 risk level. Since it is intended to form part of a set of machines which, to obtain a result, are arranged and connected to perform together, it cannot be operated until the set of machines has been declared in conformity with the applicable Directives by the person responsible for the final assembly.

*Orcoyen, on :*_____

*Signed.:*_____

Gonzalo Marco, Managing Director

VALCO MELTON

Polígono Industrial Agustinos, calle G, nave D-34

Tel.: +34.948.321.580 Fax: +34.948.326.584

31160 ORCOYEN (Navarra) SPAIN

VALCO MELTON

CONTROL REGISTRATION

CONTROL #: .....

DATE: .....

ELECTRIC CHECK: o

CONTROL BOARD CHECK: o

TEMPERATURE CONTROL CHECK 150/180°C: o

HYDRAULIC CHECK (100 bar): o

PNEUMATIC CHECK: o

APPLICATOR SERIAL NUMBER:

VALCO MELTON

GUARANTEE

DISTRIBUTOR:.....

CONTACT:.....

ADRESS:.....TELEPHON.....

OEM:.....

ADDRESS:.....

TYPE:.....BRAND:.....MODEL:.....

USER:.....

CONTACT:.....

ADDRESS:.....TELEPHONE :.....

SYSTEM LOCATION:.....

DATE OF INSTALLATION: ..... GUARANTEE UNTIL:

APPLICATOR SERIAL NUMBER:

IMPORTANT!

THIS INSTRUCTION MANUAL SHOULD BE KEPT IN AN ACCESSIBLE PLACE KNOWN TO ALL OPERATORS AND MAINTENANCE PERSONNEL.

READ THE INSTRUCTIONS CAREFULLY BEFORE OPERATING THE MACHINE AND FOLLOW THEM WHILE THE MACHINE IS IN OPERATION.

FOLLOW THE SAFETY INSTRUCTIONS PROVIDED IN THIS MANUAL WHEN USING AND HANDLING THE MACHINE.

IF YOU FAIL TO FOLLOW THE SAFETY INSTRUCTIONS, THIS MAY GIVE RISE TO BURNS, INJURIES AND EVEN IRREVERSIBLE DAMAGE. YOU MAY ALSO DAMAGE THE EQUIPMENT OR OTHER MATERIALS.

WARNING:

If you alter the function, performance or safety aspects of the machine, replacing original parts with other similar but not identical components (substantial alterations), without the authorisation of MELTON and as specified in Directive 89/392/EEC, you will be classified as a manufacturer and therefore become liable for the alterations made.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

INDEX

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 1
SAFETY INSTRUCTIONS

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

1.1. SYMBOLS AND TERMS:

Miscellaneous prohibitions

Danger: hot surface

Miscellaneous precautions

Precaution: electric current

Precaution: flammable liquid

Precaution: risk of fluid leakage under high pressure

Precaution: risk of entrapment between mobile parts

European Community markings

Note of special interest

Use of goggles required

Use of safety gloves required

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

Burns*:*

Burns can be caused by the uncovered parts of the applicator, such as the guns or by splashes of hot melt.

The hot adhesive under pressure in the nozzles can cause serious injuries to the skin.

Qualified personnel:

This is personnel (technical staff) who have acquired sufficient know-how in a specific field, either through training or from experience.

These personnel must be familiar with safety and accident prevention standards, and have general knowledge of the technical aspects of the machine.

Protective clothing:

This clothing will be compliant with EN510 and EN340 standards, protecting against fast-moving particles and high temperatures.

It will be as tight as possible to prevent it from catching on mobile machine parts, and the sleeves, waist, legs, etc. will be adjustable to the size of the wearer.

Goggles and face shields:

They will be compliant with the EN 166 standard, protecting against fast-moving particles and high temperatures.

Goggles only protect the eyes. Face shields are therefore preferable, since they protect the entire face.

Protective gloves:

They will be compliant with EN 407 and EN 420 standards, protecting the hands against the burns caused by external thermal masses at temperatures of above 100°C.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

1.2. PURPOSE:

This unit has been manufactured according to current safety standards.

This unit has been designed for the purpose described in chapter 2 of this manual, Description.

To use the machine correctly, follow the instructions provided in the Operating Manual, particularly:

- The machine should only be installed and used by qualified personnel, previously familiarised with the operating instructions (contacting the manufacturer whenever necessary) and the risks involved, the safety measures required, including adjustment and maintenance, and expressly forbidden operations.
- This unit has not been manufactured to operate in hazardous, explosive and/or flammable atmospheres
- When working with this machine, wear protective clothing, gloves and face shields and remove rings, bracelets and watches.
- Since the machine is designed to form part of a series of machines, arranged to work together, the hot melt applicator cannot be operated until the entire series has been declared in compliance with applicable directives.
- This machine should never work without the guards provided (which should not be removed). These guards should be checked and maintained with the specified frequency.
- Make sure that the equipment is properly grounded.
- Never operate the machine if you are aware that there is a leak in the glue circuit.
- Maintenance operations and/or repairs should be performed by personnel with basic knowledge of the machine and the mechanical, pneumatic and electric circuits involved.
- Maintenance operations and/or repairs should always be performed with the machine switched off at the mains, and with the main switch blocked.
- Maintenance operations and/or repairs should always be performed with the machine de-pressurised and disconnected from the pressure circuit.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

1.3. FIRST AID:

In case of burns:

Immerse affected part in cold clean water as quickly as possible until the adhesive has cooled.

Do not attempt to remove the adhesive from the skin even when it has cooled as this may cause more serious injury.

Seek qualified medical attention immediately.

In case of an accident with the solvent:

CONTACT WITH THE SKIN: Wash with soap and water and discard all contaminated cloths.

CONTACT WITH EYES: Wash in an eye bath for at least 15 minutes.

INHALATION: In case of overexposure take patient to fresh air and let them rest.

INGESTION: Do not attempt to induce vomiting. Seek medical attention at once.

In case of entrapment:

Press directly the wound with a clean cloth to control hemorrhage..

Protect and immobilize the injured area.

Seek qualified medical attention immediately.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 2
DESCRIPTION

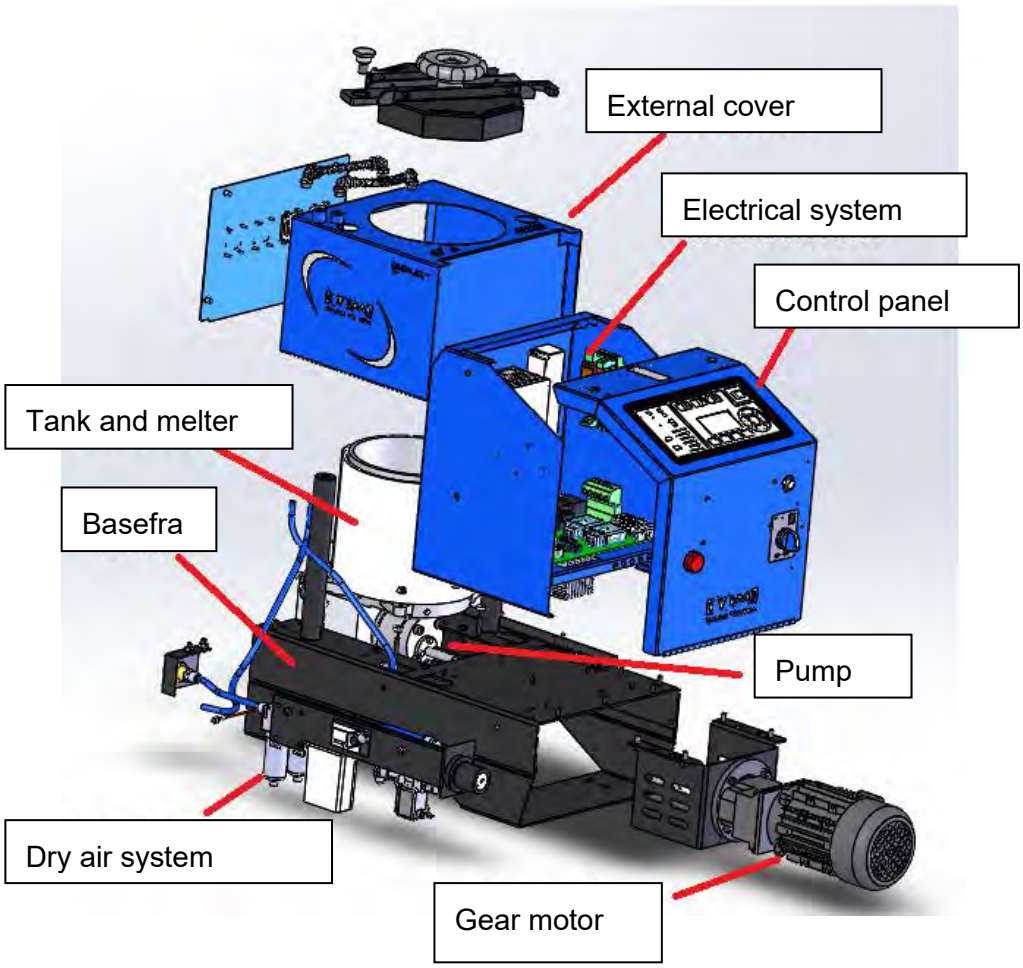
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

2.1. INTRODUCTION:

This machine transforms the hot-melt or polyurethane (or similar materials) contained in a heated tank from a solid to a liquid state by means of a thermal action. A pump absorbs the adhesive and raised it to a certain pressure to send it to the place of use through hoses.

2.2. MAIN PARTS:

The main parts of the ISOMELT MINI equipment are shown on the following figure:



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

2.2.1. Baseframe:

The base that supports the entire machine and where the manifold, the pump and the motor are stored.

2.2.2. Tank:

This is where the hot-melt or other materials are melted; these materials may be in bulk form or in chunks.

The tank is made of cast aluminium and is coated with Teflon to prevent soot and crystallisations. It includes a resistance heating system with probe temperature control (PT-100 or nickel, depending on the temperature control model) from the main control.

2.2.3. Grid:

It pre-melts the adhesive. It has a heating system with cartridge heaters with the temperature controlled by a probe (PT100 or Niquel depending on the model of the equipment).

2.2.4. Melter:

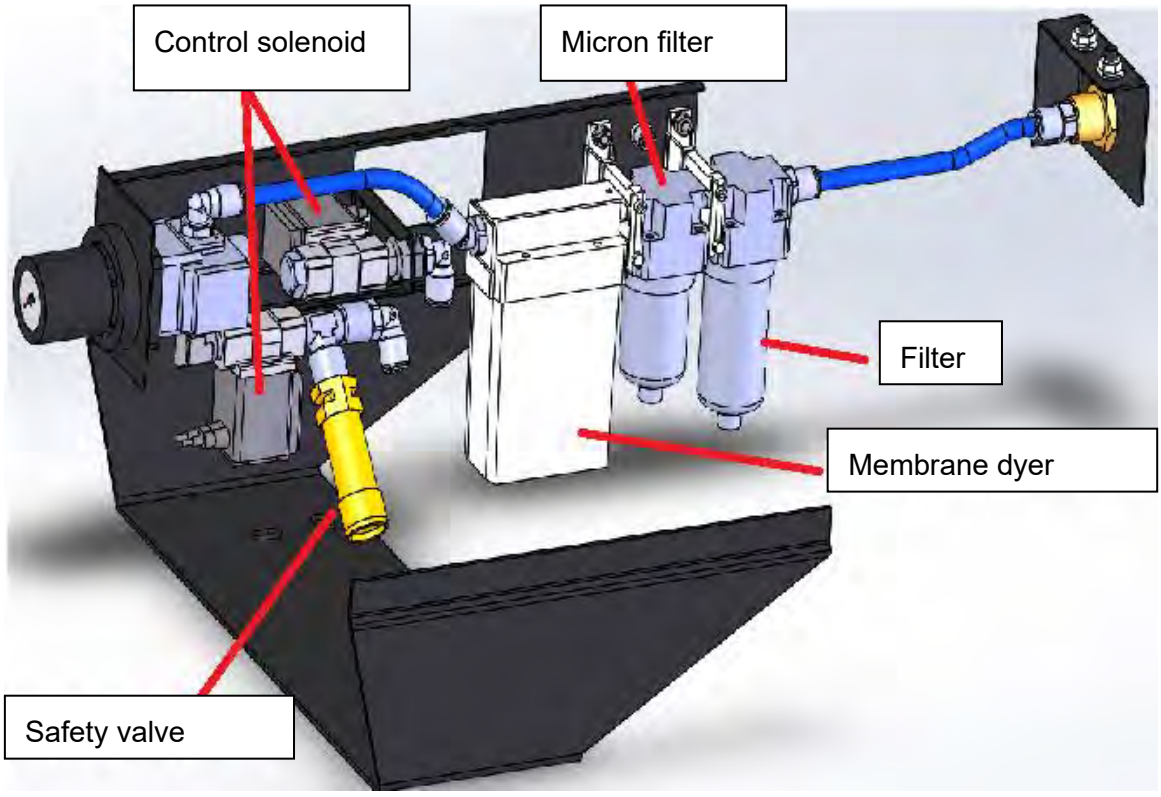
It melts completely the adhesive. . It has a heating system with cartridge heaters. The temperature is controlled by a probe (PT100 or Niquel depending on the model of the equipment).

2.2.5. External cover:

Prevents an accidental access to the inside of the machine, avoiding possible interferences in the operation.

2.2.6. Dry air system:

Pneumatic system that maintains the tank pressurized at 0,5 bar with dry air or N_2.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

2.2.7. Pumping and Distribution System:

It features the following components:

Manifold:

This manifold distributes the Hot Melt to the hoses and guns. Made of aluminium, it is assembled inside the bench. It heats up through internal resistors. The manifold features outlets to connect the hoses, a purging valve, a filter to remove impurities and a regulator. The regulator controls the unit's output pressure.

The manifold should not be dismantled; this operation should only be done if there is an adhesive leak between the tank and the manifold.

Pump:

The pump is what moves the Hot Melt or other thermal fusible product at a certain pressure from the pump manifold through the manifold to the hoses and guns.

The pump is located inside the bench and is driven by an alternating current gearbox. The pump speed is shown on the display located on the front of the control panel.

Gearbox:

The purpose of the gearbox is to control the pump. It is an alternating current motor that is controlled by a vector-controlled VFD which transmits the power through a connection to the pump. The motor speed can be manually or automatically adjusted depending on the ratio required in the main machine. It can't exceed 100 rpm.

2.2.8. Electrical System:

It is in the electrical box with the exception of the heat resistors and the motors. All of the control electronics and the power needed to operate the machine are located here.

2.2.9. Control panel:

It is situated at the front of the machine with the machine operating and adjustment switches.

2.2.10. Plus lid:

This version is used to improve the melting capacity. It has a cylinder to press the adhesive block against the melter.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

2.3. TECHNICAL SPECIFICATIONS:

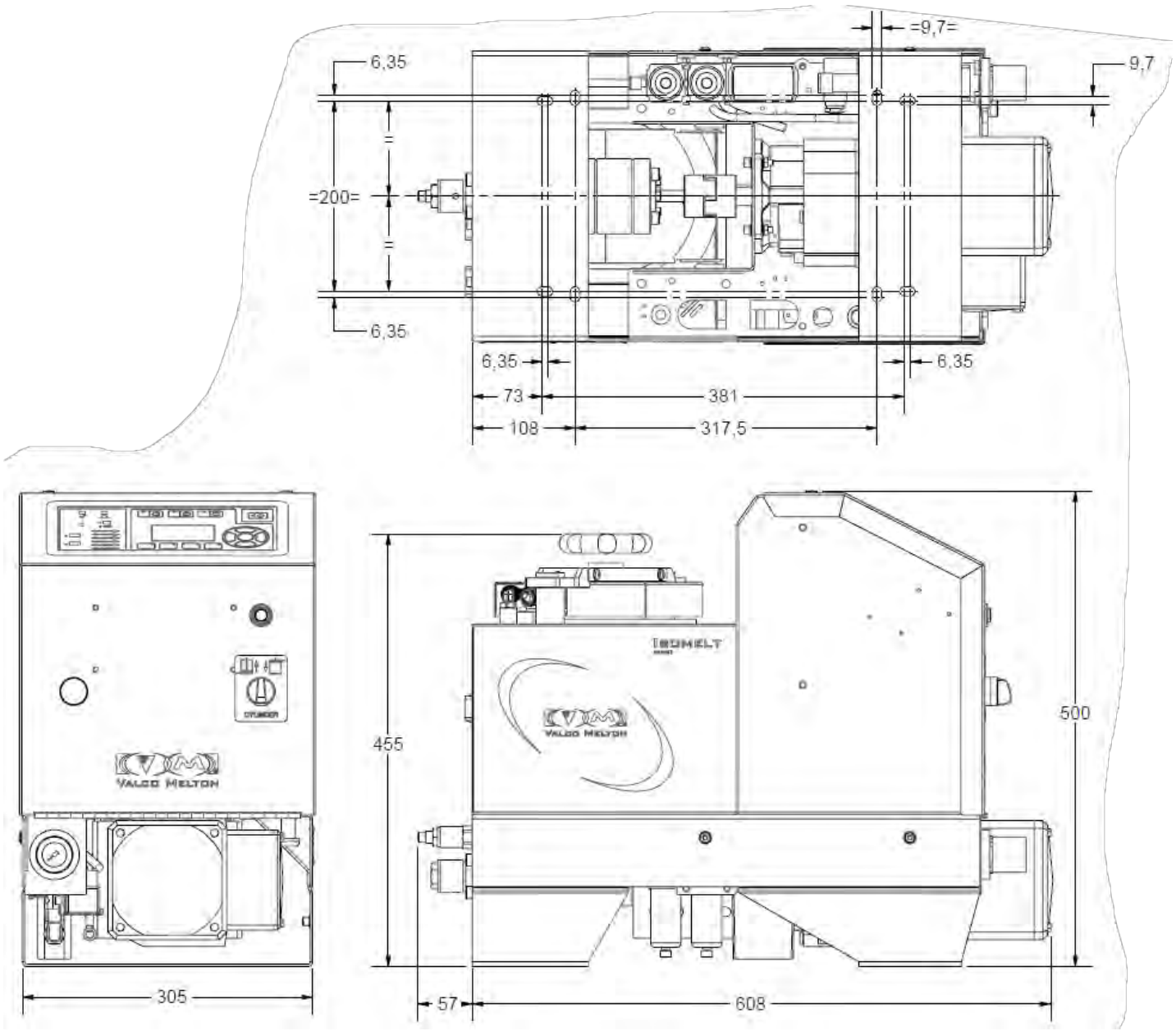
COMPONENT	*DATA*
GENERAL	
Maximum Power supply	16080 W
Power supply voltage	220V +N+T ó III 220V+T (50/60 Hz), ó III 380V+N+T (50-60Hz)
Amperage	40A for 230V / 24A for 400V
Hoses (max.)	4
Hydraulic pressure	2.8 – 80 bar (40 – 1138 psi)
Noise level	63 dB
Net weight	Depending model
Operating temperature	-10ºC – 50 ºC (32ºF – 122ºF) HR 20% to 80% not condensed
CONTROL	
Operational programming range	15º - 230º C (60º - 446º F)
Temperature control accuracy	+/- 0.5º C (+/- 1º F)
Control type	PID
PUMP	
Pumping capacity	Simple pump 2.5cc/rev: 15Kg/h Simple pump 4cc/rev: 24Kg/h
Rotational speed	3 to 80 rpm recommended (programmable 1 to 100 rpm)
TANK	
Loading capacity (kg)	4.5L
Melting capacity (kg/h)	4

***Depending on the adhesive**

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

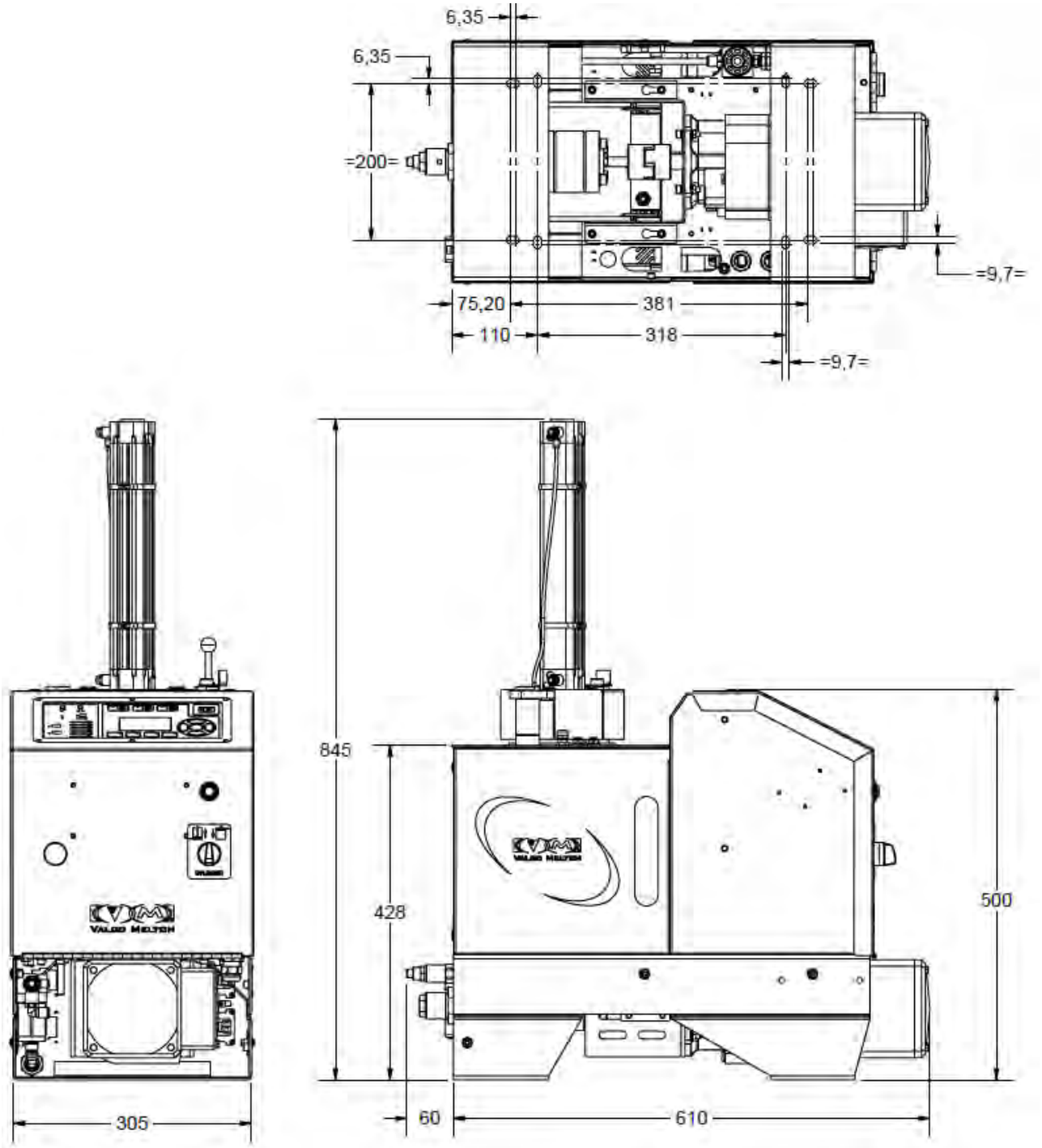
2.4. GENERAL DIMENSIONS:

2.4.1. ISOMELT MINI:



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

2.4.2. ISOMELT MINI PLUS:



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 3
MACHINE INSTALLATION

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3.1. INTRODUCTION:

This chapter explains how to install the machine correctly.

WARNING: The operations described in this chapter should be performed by qualified personnel, following the safety instructions.

3.2. TRANSPORT:

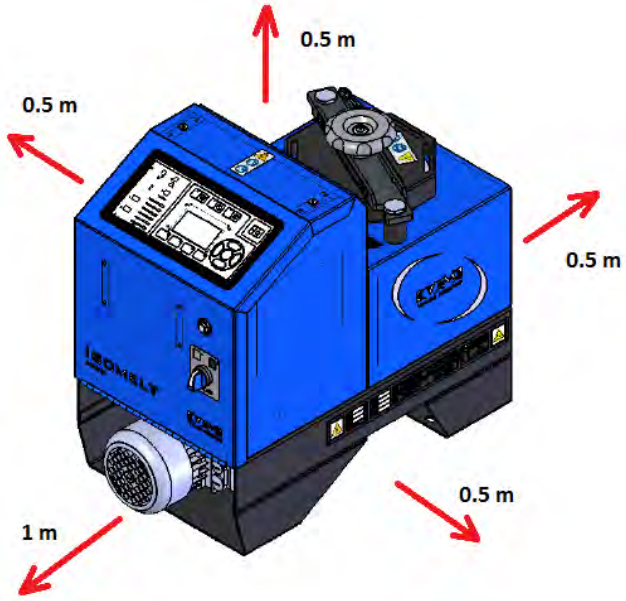
The machine is supplied on a pallet with a wooden frame.

Remove the top and front covers to unpack.

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

3.3 INSTALLATION REQUIREMENTS:

Install the ISOMELT MINI machine leaving enough space for it to be accessed during operations.



Avoid extreme temperatures (below -10ºC and above +50ºC).

Try to avoid installing the machine where there are draughts. If this is not possible, the guns will need to be protected because they may not work properly if the temperature suddenly drops.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3.4. MECHANICAL INSTALLATION:

The mechanical installation involves the following:

Positioning the machine:

Remove the machine from the pallet using a forklift and position according to the installation requirements (chapter 3.3). The machine features anchor holes on the legs.

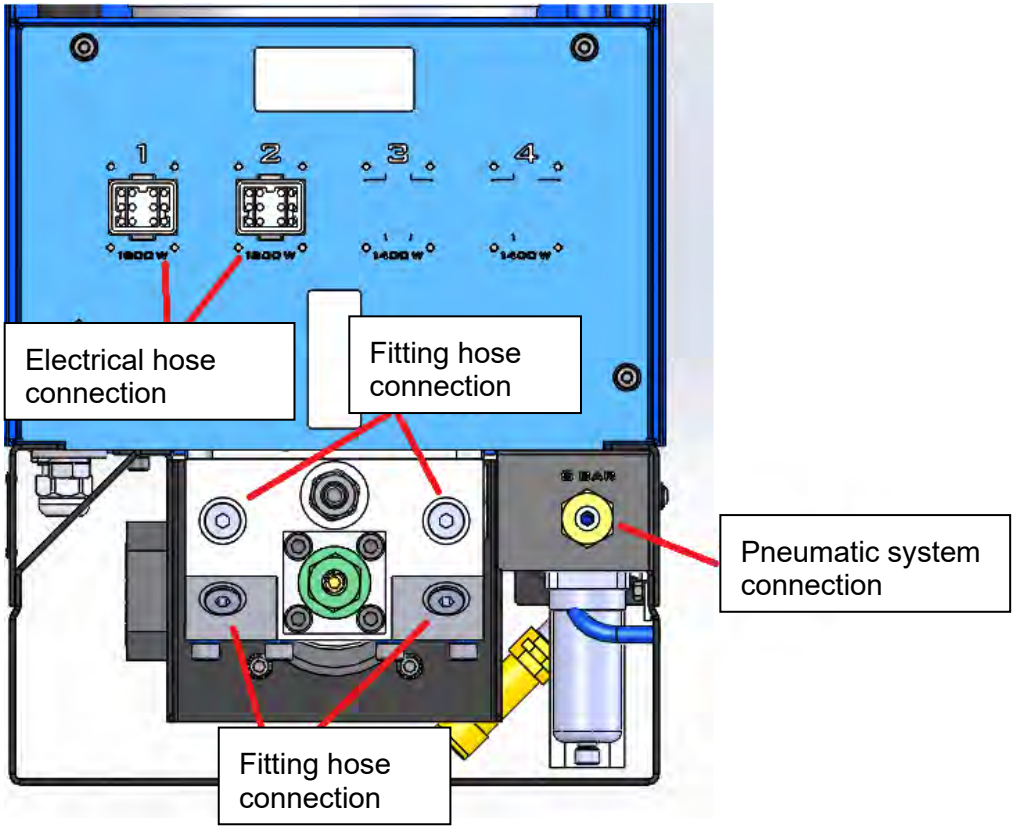
Connecting the hoses:

Proceed as follows to connect the hoses:

Make sure the machine has been depressurised before connecting the hose. Set the motor control selector to zero. Heat the machine to melt any adhesive that may be present.

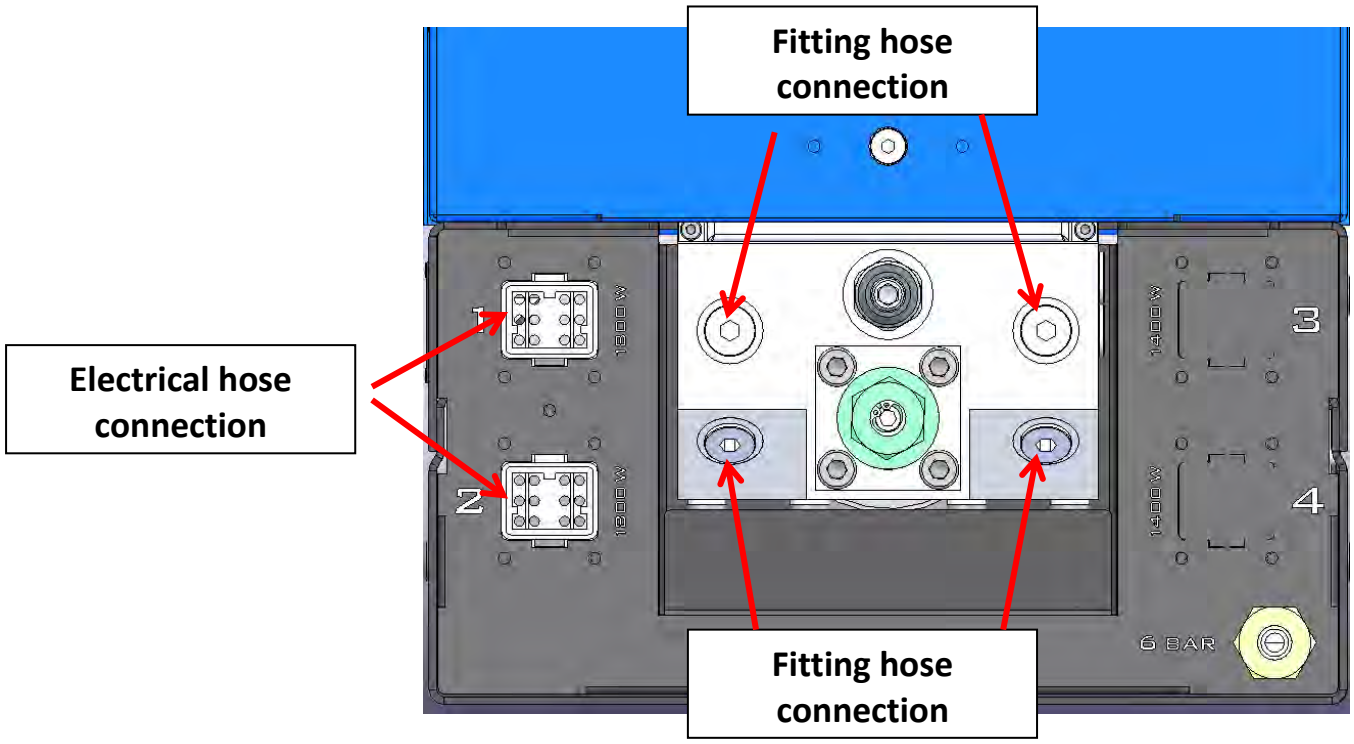
1. Remove the manifold cap. Screw the plug and socket connector together as per the hose diameter. Apply a torque of 40 Nm.
2. Screw the hose to the connector.
3. Hook up the hose electrical connections.
4. Once the hose is at the right temperature, re-tighten the male connectors and the hose.

ISOMELT MINI



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

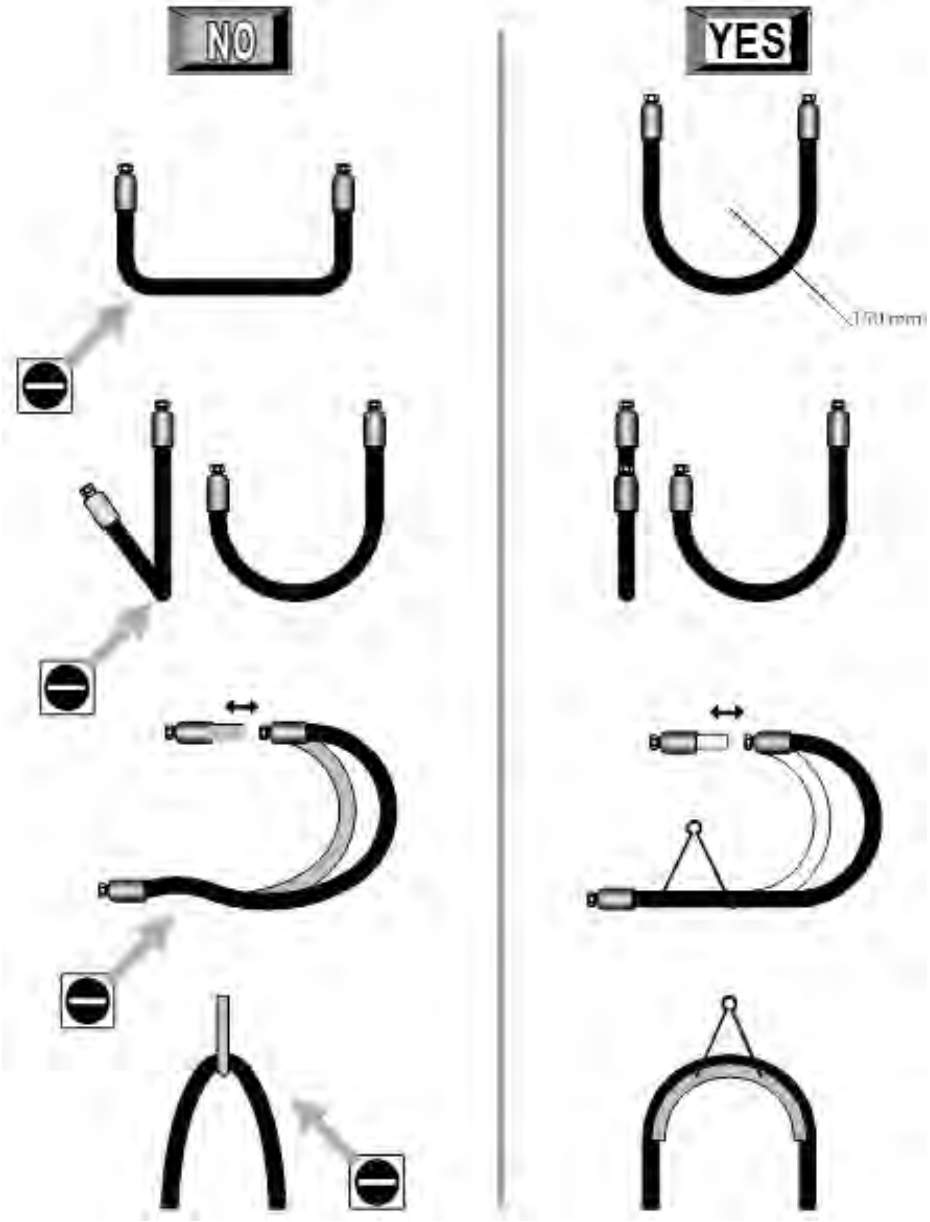
ISOMELT MINI PLUS



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3.4.1. HOSE POSITION:

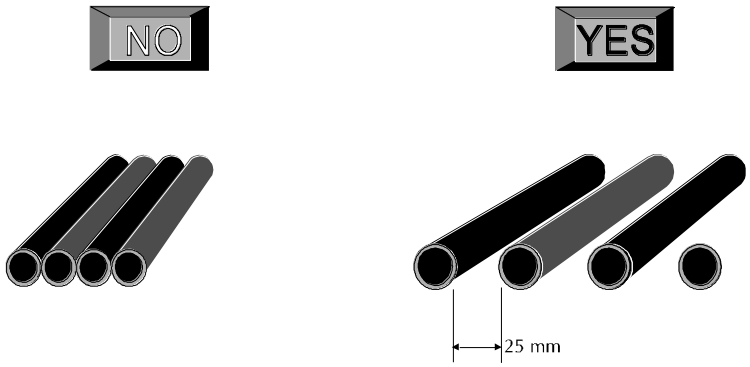
Never bend the hoses to angles with a radius of less than 150 mm.



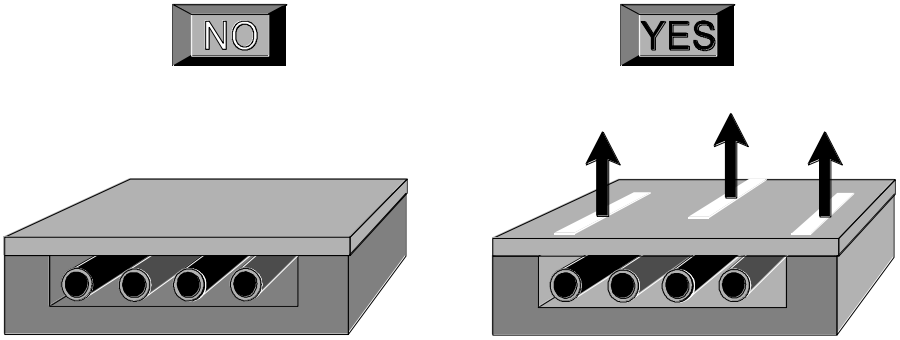
Hoses should not be secured to very broad, cold surfaces.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

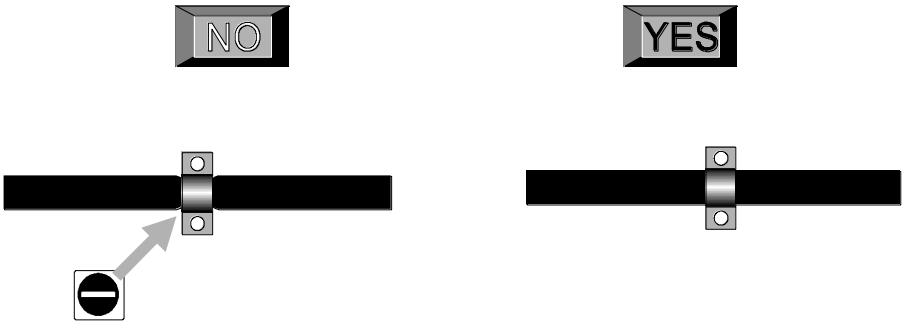
Do not bunch hoses together. Leave at least a 25 mm gap between them so the heat dissipates adequately.



Do not cover hoses. If the hoses need to be covered, make sure there are vents to allow the heat to dissipate.



Do not install hoses with clamps that place pressure on the diameter.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3.5. ELECTRICAL WIRING:

The electrical wiring depends on the model. See electric diagrams.

Make sure the power source is duly protected and you are using the right cable for the machine's electrical power needs.

Secure the power cord to the machine bench in order to prevent an accident.

Connect the pump permissions to the safety line on the main machine.

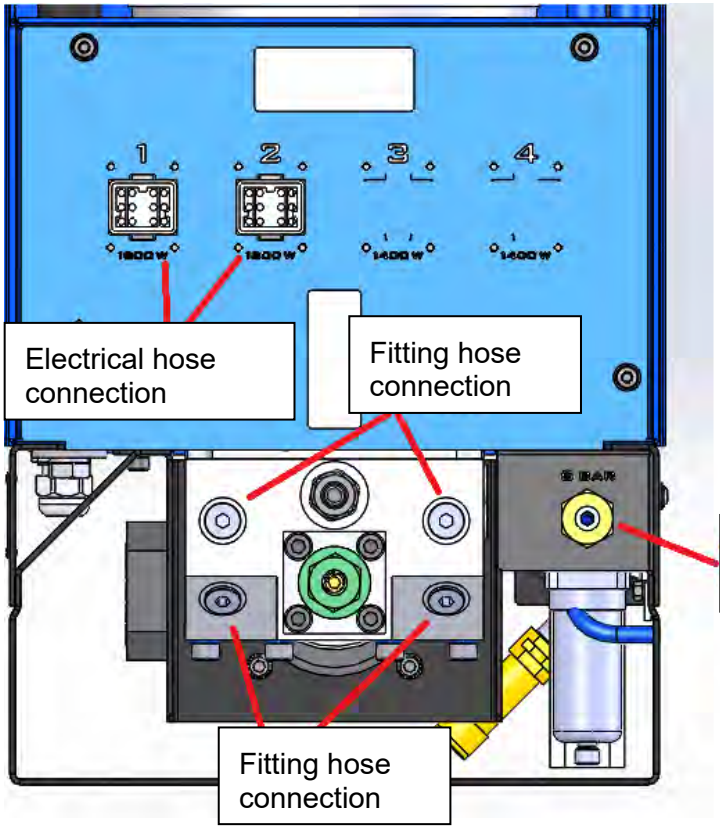
When the machine is connected to a main machine, it won't run until the external permission is given.

These terminals are shorted at our factory.

3.6. PNEUMATIC INSTALLATION:

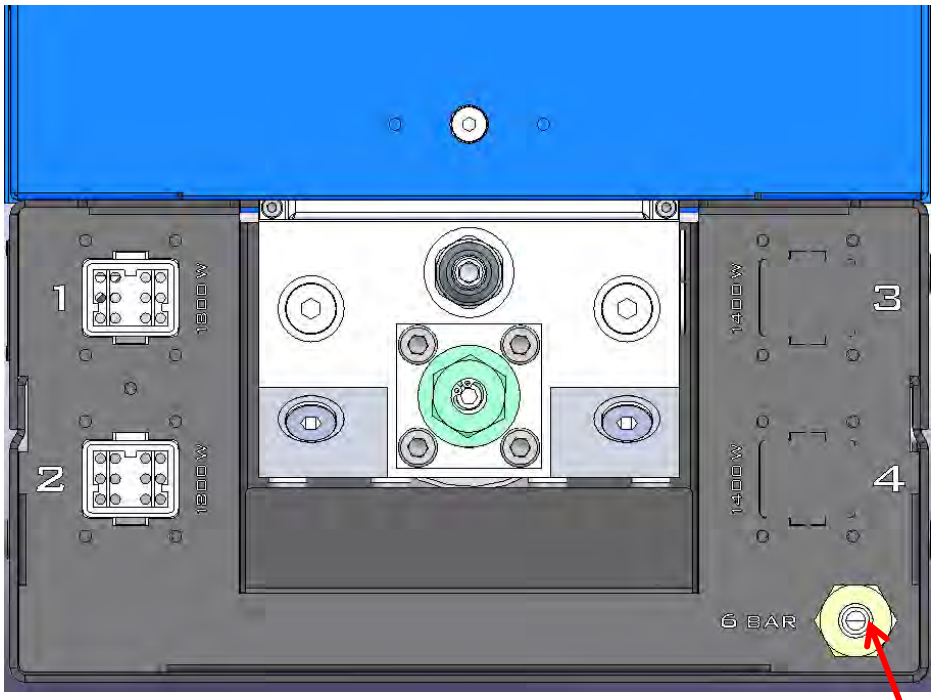
The equipment has a G1/4 fitting to connect the dry air system

ISOMELT MINI



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

ISOMELT MINI PLUS



Pneumatic system connection

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 4
MACHINE ADJUSTMENTS

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.1. CONTROL PANEL:

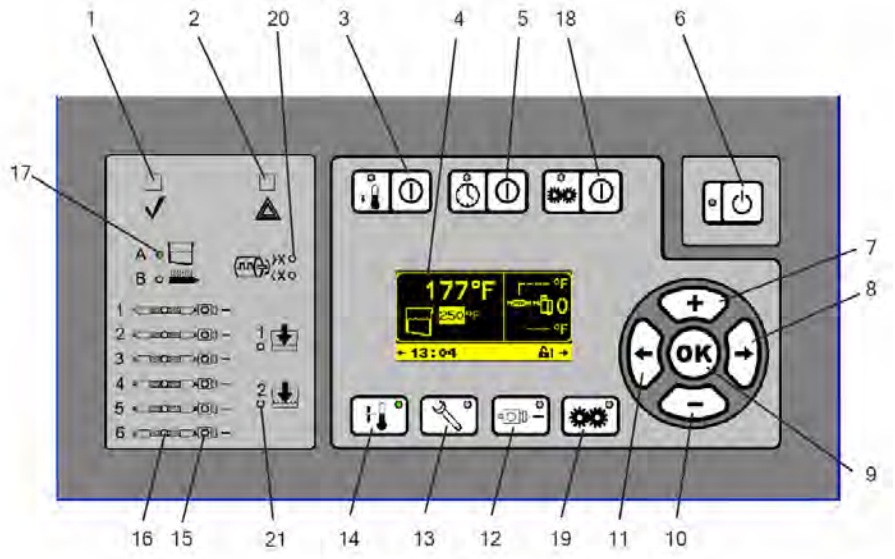
The following adjustments should be made before the machine is switched on or while it is working. They will ensure that the machine works properly and safely.

The control panel is fitted with a timer for automatic switch-on and switch-off.

With menus to access the parameter programming as well as the main machine operating permissions, alarms and various operating functions that will be described below, the machine regulates the temperature of the resistors connected to the various dual hose-gun canals and the two tank and manifold heating canals.

The control panel displays the machine operating data as well as the alarms generated in the probe signals. The LEDS also display the statuses of the heat resistor regulator outputs, pressure pump, and excess temperature, safety and maintenance required alarms.

The control panel has 11 control keys that provide access to the program menus and general operating processes.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

	NAME	DESCRIPTION
1	System Ready LED	Green when the system reaches the programmed temperature.
2	Alarm LED	Red when an alarm goes off.
3	On/Off Cooling/Regression Button	Places the unit in or out of Cooling/Regression mode. Yellow when the unit is in Cooling/Regression mode.
4	Settings Screen	Displays the menu screens
5	Clock On/Off Button	Turns the timer function on or off. Green when the timer function is activated.
6	ON/OFF heat button	To turn the machine on and off. The light is green when on and red when off. Green when the unit is on and orange when in Standby mode.
7	More Button	Increases the value of the selected parameter
8	Right Arrow Button	Moves to the right through editable fields on the selected menu
9	OK Button	Enter or exit a screen where the selected field can be edited
10	Less Button	Decreases the value of the selected parameter
11	Left Arrow Button	Moves to the left through editable fields on the selected menu
12	Release Control Button	Establishes the release control functions if enabled. Disabled.
13	Configuration Button	Displays the configuration screens. Green when the machine enters the configuration screen
14	Temperature Button	Displays the temperature screens. Green when the machine enters the temperature screen
15	Gun Zone LED	Green when the gun zone is on and red when there is an alarm.
16	Hose Zone LED	Green when the hose zone is on and red when the zone is on alarm.
17	Tank Zone LED	Green when the tank is warming and red when there is an alarm.
18	Pump ON/OFF Button	Turns the pump on and off. Green when the pump is active.
19	Pump Menu Button	Displays the pump configuration screens. Green when the machine enters the pump configuration screen.
20	Minimum speed LEDs	The light comes on when the speed is above or below the minimum value established.
21	Level LEDs	Lights up when the level is below the minimum.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.2. DISPLAY CONTRAST SETTINGS:

The screen contrast may be adjusted for better viewing. If you cannot see the screen well, adjust the contrast.

Do the following to adjust the contrast:

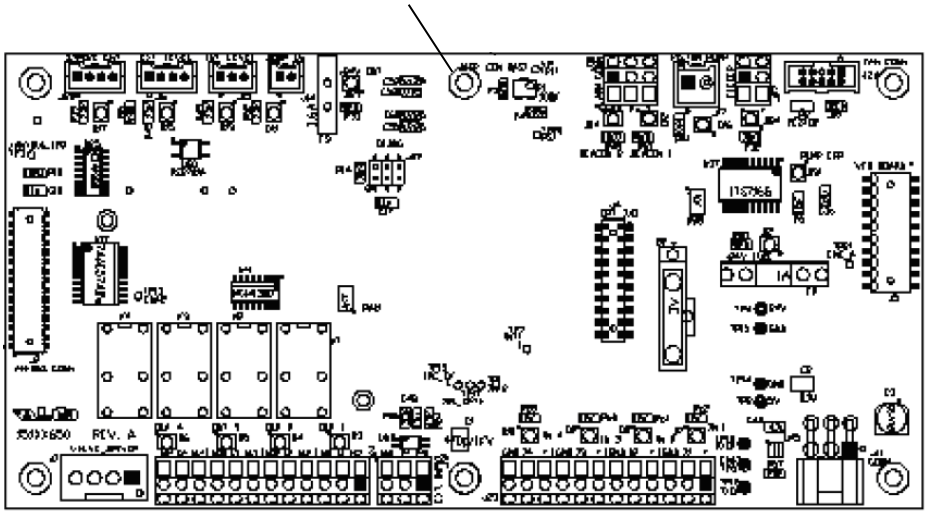
1. Keep the “SETUP” key pressed down on the front panel keypad while simultaneously pressing the “+” and “-“ keys to change the screen contrast. This will make the characters brighter or darker on the screen.

2. If this doesn’t work or you still can’t see the screen properly, open the electric box door to see the rear of the CPU card.

3. Adjust the screen contrast with the potentiometer found on the back of the CPU card with a small screwdriver. (This requires a very small slotted screwdriver).

Contract adjustment

Potentiometer



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3 SETTINGS:

Press the  key to access the main settings menu.

The following menus are available:

Press the right and left keys to go to the chosen menu and press the OK key to enter the menu.

Press the +/- keys to modify a parameter.

One easy option is to press OK to access the parameter selection screen and use the +/- and left/right keys to choose the desired combination.

Press the  key again to exit the sub-menu.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.1. PASSWORD LEVELS:

The ISOMELT MINI machine features several levels of security to protect important information from being accessed by unauthorised personnel. The levels are activated with different PIN codes upon entering the “Configuration Menu”. The following list includes the PIN codes for the different levels and describes the differences between them.

You can access this feature via the settings / unlock menu.

Level 1 - Operator (no password required)

- Information can be viewed, but no editing is allowed except for basic settings.
- The programmed temperature values can be adjusted.
- Zones can be turned on and off.

Level 2 - Advanced Operator (PIN Code: 1234)

- Has access to all level 1 features.
- Can access most setting configurations.
- Can access all Clocks, Cooling/Regression,, Start, Log and Diagnostics on the menus.

Level 3 - Supervisor (PIN Code: 6550)

- Can access levels 1 and 2.
- Can access the maximum temperature settings menu under the System Configuration Menu.
- Can access Peripheral menus (Inputs/Outputs) and the Temperature controls (PID).

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.2 SYSTEM SETTINGS.

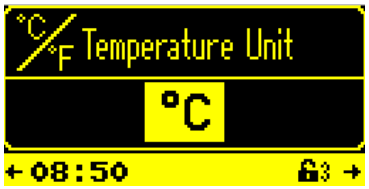
You can access this feature via the settings / system menu.

4.3.2.1 Language:

It is found under the settings / system / language menu.
Use the +/- keys to choose a language.

4.3.2.2. Temperature Units:

This is found under the settings / system / temperature units menu.
You may choose Celsius (ºC) or Fahrenheit (ºF):



4.3.2.3. Pump Temperature and System Read Programming

This is found under the settings / system / pump and system ready menu.

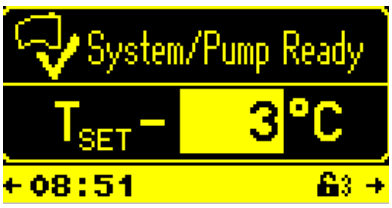
You must enter a small gap between the programmed operating temperature for the zones and the real temperature at which the system will be considered ready.

It's related to the temperature established for each zone. The system indicates it is ready (and the System Ready LED turns green). The system provides permission when each zone reaches the programmed temperature. The permission activates the pump. This prevents the pump from activating before the adhesive melts.

See the adhesive technical data sheet to find the melting point.

The pre-programmed temperature must be set to at least -5ºF (-3ºC). If set very close to the point (-1°F, for example), the pump will repeatedly stop due to small temperature fluctuations.

The parameter range goes from 0ºF to 36ºF (0ºC to 20ºC) and the manufacturer preset value is 5ºF (3ºC).



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.2.4. Ready delay Time

It is found under the settings / system / time before start menu.

When using the Ready Delay Time option, the system ready LED will turn on at a pre-set time after all of the zones reach the respective programmed temperatures except for the system ready compensation temperature. This feature allows the adhesive in the system to heat up for an additional time before the pump motor activates.

Once the set temperature has been reached, the time remaining before the machine is ready is shown in a status bar at the bottom of the screen.

The times range from 1 minute to 120 minutes. It is factory set ON with a time of 15 minutes.

To extend the life of the pump joints, this 15 minute time should not be reduced.

You can access this parameter with a password level of 2 or higher.

4.3.2.5. Over Temperature Alarm

It is found under the settings / system / overheat menu.

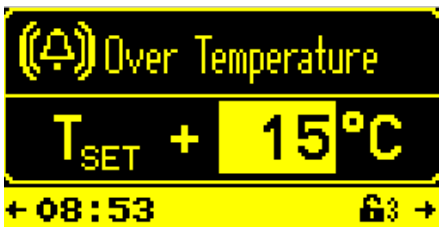
The Over Temperature Alarm refers to the temperatures set for each machine zone.

The tolerance for the overheat alarm is the number of degrees that each zone has heated above the set temperature before the alarm goes off.

If any zone enters in the overheat alarm zone, this zone automatically stops heating.

The alarm tolerance range is 9ºF to 108ºF (5ºC to 60ºC). It is factory set at 45º F (25º C).

You can access this parameter with a password level of 2 or higher.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.2.6. Under Temperature Alarm

This is found under the settings / system / low temperature menu.

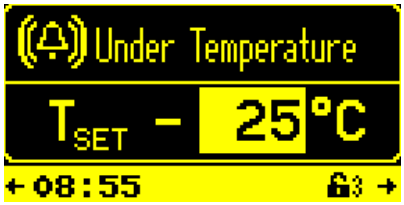
The Under Temperature Alarm refers to the temperatures set for each machine zone.

The tolerance for the under temperature alarm is the number of degrees that each zone has cooled below the set temperature before the alarm goes off.

The alarm tolerance range is 9ºF to 108ºF (5ºC to 60ºC). It is factory set at 27º F (15º C).

If any zone enters the under temperature alarm zone, that zone will heat until the set temperature is reached.

You can access this parameter with a password level of 2 or higher.

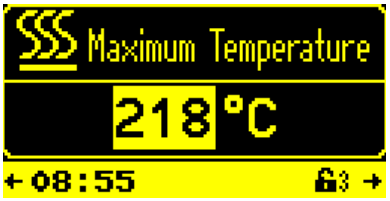


4.3.2.7. Maximum Temperature

This is found under the settings / system / maximum temperature menu.

The maximum temperature is the maximum programmed temperature value for each zone. The maximum temperature range is 32º F to 446º F (0º C to 230º C). It is factory set at 446º F (230º C).

You can access this parameter with a password level of 3 or higher.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.2.8. Beacon / Alarm Setup

It is found under the settings / system / alarm mode menu.
The card features two alarm slots for a 24VDC marker light.

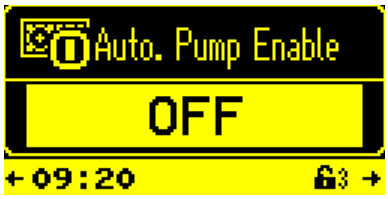
Select the type of alarm for the slot with the +/- keys.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.2.9. Automatic Pump Mode:

It is found under the settings / system / auto pump mode menu.

Use the automatic pump option so the pump works automatically or manually.

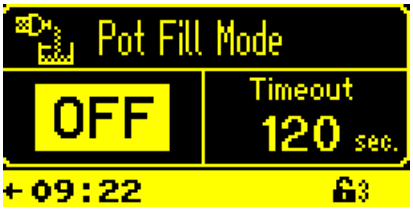


4.3.2.10. Pot Fill Mode

It is found under the settings / system / pot fill mode menu.

When the equipment is used to fill another tank and its level sensor emits a signal to activate the pump, because it needs adhesive, we can set here a delay time for the activation of our pump.

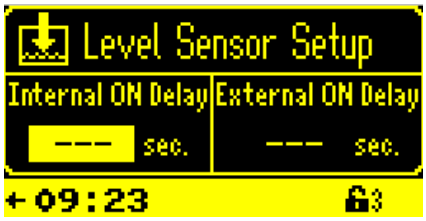
Pump auto mode must be ON. The external level control is wired to the external level input on the CPU, J6.



4.3.2.11. Level Sensor:

It is found under the settings / system / level sensor menu.

With this feature, you can configure the time delay for the level sensor alarm both for the inner and outer signals.



4.3.2.12. Filter Change:

It is found under the settings / system / filter change menu.

You enter the number of operating hours for the filter and when this time is up, the alarm will go off indicating the filter should be changed.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.3. CLOCK AND 7-DAY TIMER:

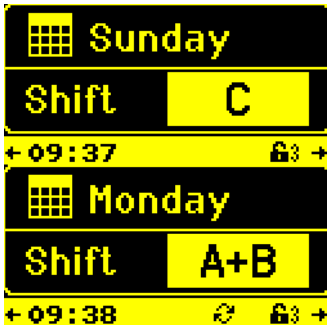
This is found under the settings / clock menu.

The Clock submenu is used to choose the day and time and to establish on/off shifts and times and cooling/regression/rest temperatures so the system runs them automatically.

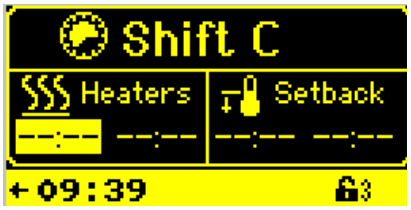
Press the left/right keys to select the operating and rest times for each shift.

Make sure that the desired temperatures have already been established (see the section entitled Programming Temperatures).

After entering the times, move to the right and use the +/- keys to select the shifts to operate the machine on the chosen days.



This screen indicates that for the A shift, the resistors will begin at 7:00 AM until the programmed temperature (pre-set on the temperatures screen) is reached and will turn off at 3:00 PM with all of the heaters reaching the Cooling/Regression temperature between 11:30 AM and 12:00 PM.



This screen indicates that nothing will be activated for shift C as there is no shift C.

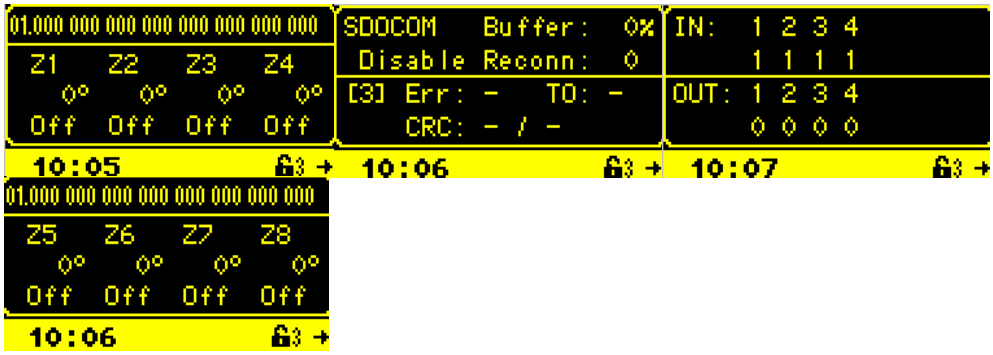
This configuration can be activated by pressing the key on the main panel.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.4. DIAGNOSIS:

This is found under the settings / diagnosis menu.

The diagnostics screen displays the current software version as well as the current temperature and status of each zone.



4.3.5. SETBACK TEMPERATURE / TIME:

This is found under the settings / setback menu.

The setback time option is used to reduce the temperature of all of the zones with a temperature difference where the hot-melt is soft but does not melt. It is used when the machine is not in use.

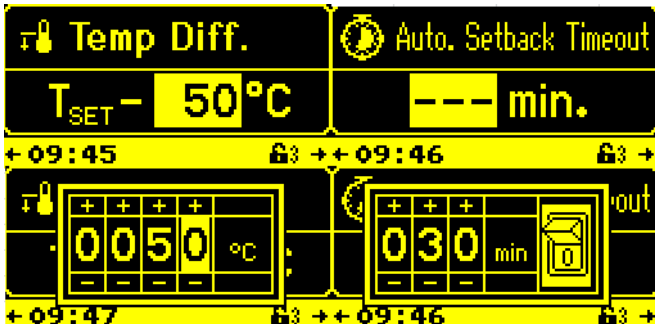
The temperature differential is related to the programmed temperature for each zone.

The temperature differential has a range of 45ºF to 342ºF (25ºC to 190ºC). The default value is 90ºF (50ºC).

You can access this parameter with a password level of 2 or higher.

The stback standby time is the time it takes the machine to enter into setback mode.

Remember to enable the setback standby time by pressing the switch.



If the automatic standby time at setback option is enabled and there is no external unit connected to the machine, the machine will automatically go into setback mode once the programmed time has passed.

If the automatic standby time at setback option is enabled and there is an external unit connected to the machine, the machine will automatically go into setback mode once the programmed time has passed as long as it does not receive any pulse from the external machine. If it does, the standby time at setback will begin at zero.

The standby time at setback range is 1 minute to 120 minutes. It is factory set at 30 minutes.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.6. GUN/ HOSE SEQUENTIAL HEATING:

This is found under the settings / startup menu.

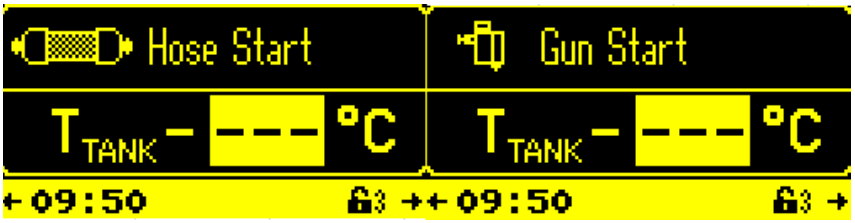
The hose on option allows the hose to begin heating after the tank reaches a specific temperature below the set temperature. This feature is used to reduce wear on the adhesive caused when the adhesive heats up in the hose because the adhesive remains in the hose for too long when waiting for the tank to reach the operating temperature.

The temperature range for the hose on option is 0º F to 450º F (0º C to 250º C). The option is factory set off.

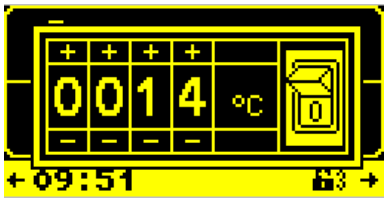
The turn on gun option allows the gun to begin heating after the tank reaches a specific temperature below the set temperature. This feature is used to reduce wear on the adhesive caused when the adhesive heats up in the gun because the adhesive remains in the gun for too long when waiting for the tank to reach the operating temperature.

The temperature range for the hose on option is 0º F to 450º F (0º C to 250º C). The option is factory set off.

You can access this parameter with a password level of 2 or higher.



Press OK to access the temperature programming screen. Remember to enable this option with the switch.



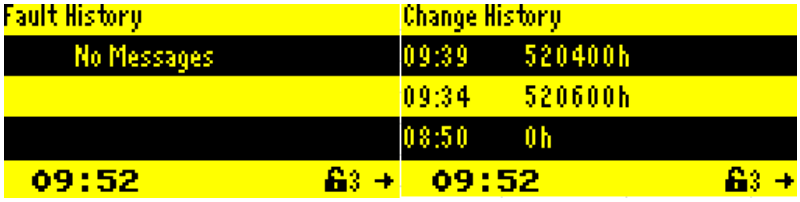
4.3.7. HISTORY:

This is found under the settings / history menu.

The errors log saves a list of faults that have occurred in each zone.

Log change saves a list of all of the configuration parameters and changes.

The errors log and log change are deleted when the machine is turned off.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

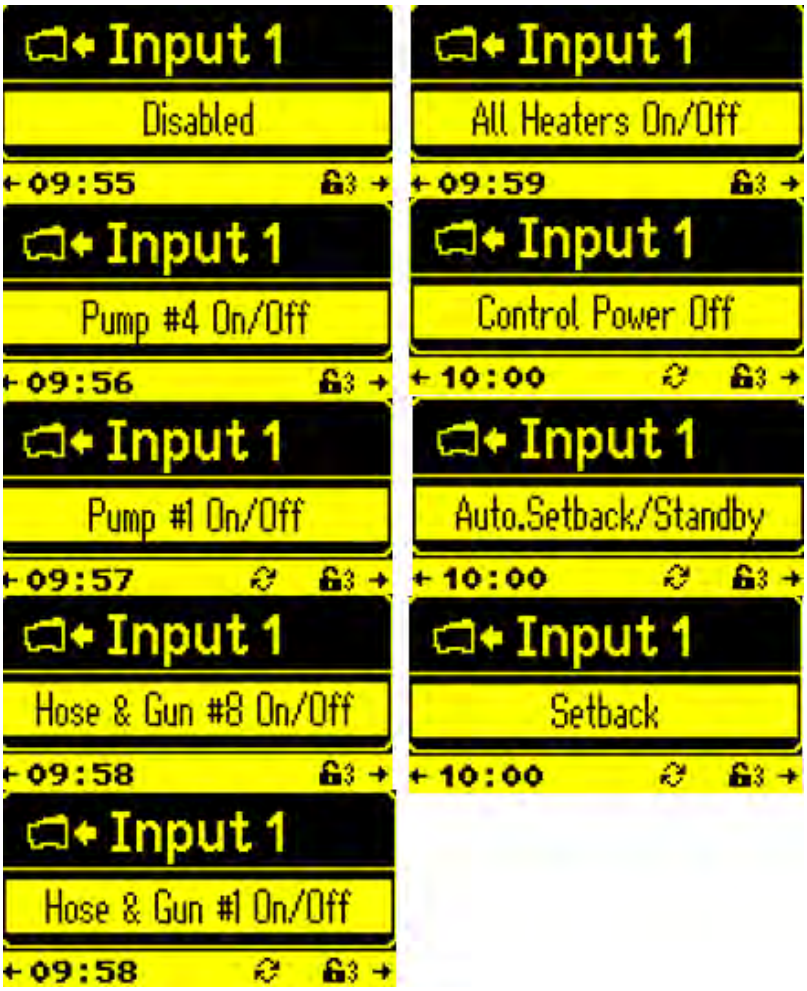
4.3.8. INPUT:

This is found under the settings / input menu.

The inputs are electrical inputs that can be activated by remote signal.

The different types of configurable inputs are shown below.

Use the left/right keys to select the input number (from 1 to 4) and the +/- keys to configure the input type.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

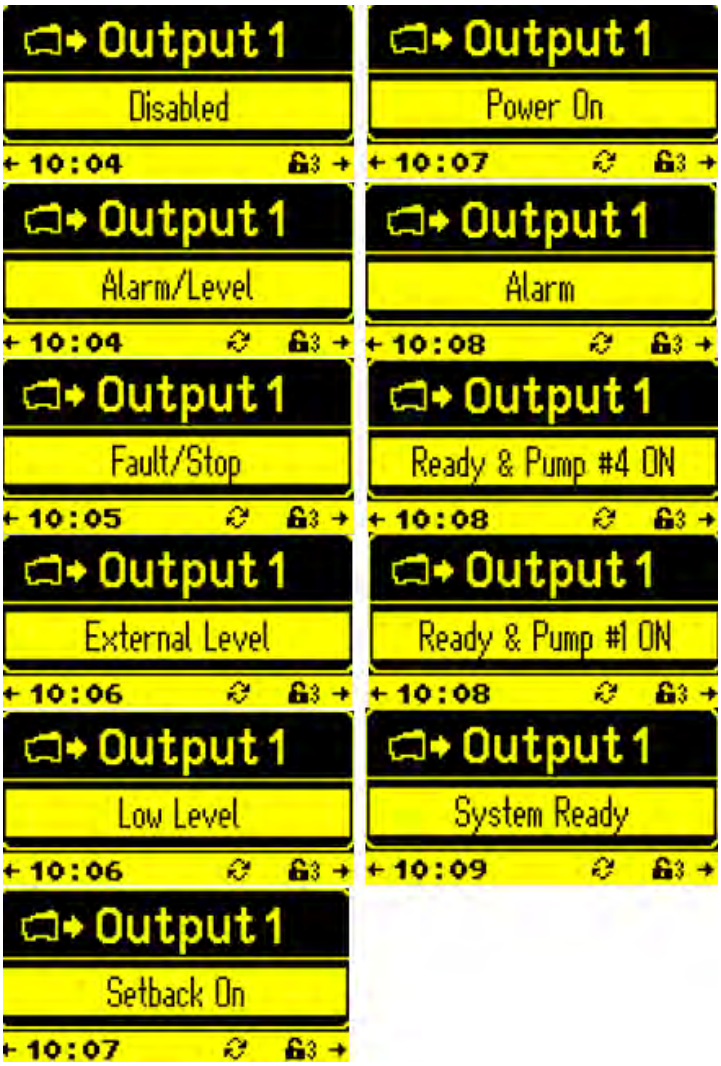
4.3.9 OUTPUTS:

This is found under the settings / outputs menu.

The outputs are electrical outputs that can enable a remote unit.

The different types of configurable outputs are shown below.

Use the left/right keys to select the output number (from 1 to 4) and the +/- keys to configure the output type.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.10. PUMP:

This is found under the settings / pump menu.
Use the left/right keys to select the parameter to modify.

Speed Gain:

This configures the nominal speed percentage at which the pump can rotate.

Creep Speed:

The minimum speed at which the pump can rotate.

Minimum Speed:

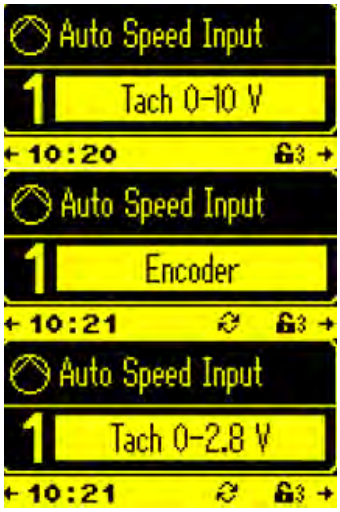
The signal below which the pump is maintained at a minimum speed.

Maximum Pump Speed:

The maximum speed at which the pump may rotate.

Auto Speed Input

Press the +/- keys to select the type of speed input.

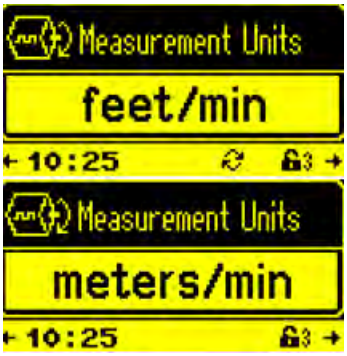


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.11. ENCODER:

Use the left/right keys to configure the encoder settings:

Use the +/- keys to configure the measurement units:



4.3.12. TEMP:

This is found under the settings / temp. menu.

The parameters P I D S R can be configured for each zone in order to optimise the heating in each zone.

Press the +/- and right/left keys to select the zone and parameter you wish to modify.

Press the left key just after entering the Temp menu to directly access the AutoTune option. Press Start to activate Auto Tuning.

The AutoTune feature is generally used once when commissioning the machine. When all of the hoses and guns are connected to the machine, AutoTune is activated which identifies the active zones and automatically adjusts the P I D S R parameters so the active heating zones operate best. This function may take at least 8 hours to complete and the machine cannot be disconnected from the power source until it is finished.

You can access this parameter with a password level of 3 or higher.

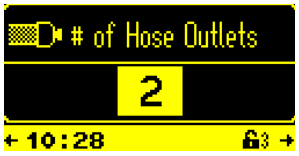
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.3.13. CONFIGURATION

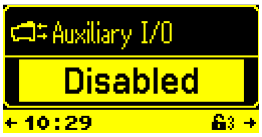
This is found under the settings / conf. menu.

Use the right/left keys to access the options:

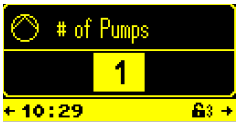
No. hoses:



Enable the I/O card with the +/- keys:



No. pumps:

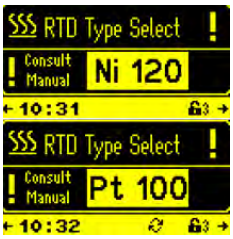


Weight Control:

Use the right/left keys to select the pump. Use the +/- keys to enable/disable.

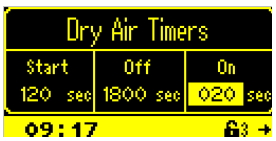
Probe Type:

Use the +/- keys to choose Ni 120 or Pt 100.



Dry air timers:

Use left / right keys to set the parameter, and +/- keys to set the desired time for each blowing process .

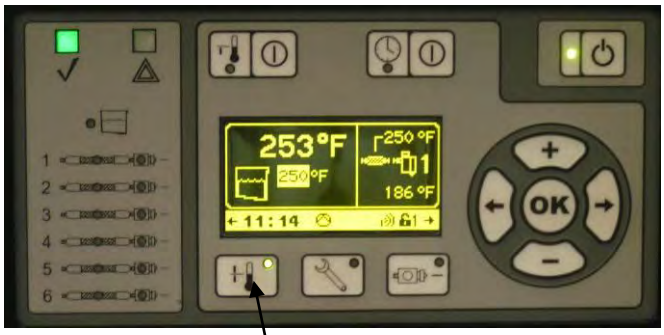


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.4. TEMPERATURE SETTINGS:

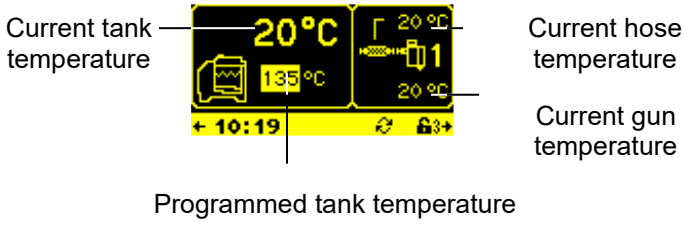
4.4.1 PROGRAMMING TEMPERATURES:

Press the temperature button (if the temperature LED is not green) to display the first temperature screen.

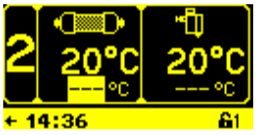


4.4.2 TEMPERATURE SCREENS:

The tank temperature screen displays the current and programmed temperature. Output 1 and output 2 temperatures alternate on the screen to the right.



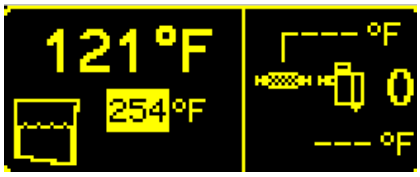
Press the temperature button repeatedly (or use the navigation keys) to select the desired temperature shown on the screen.



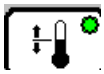
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

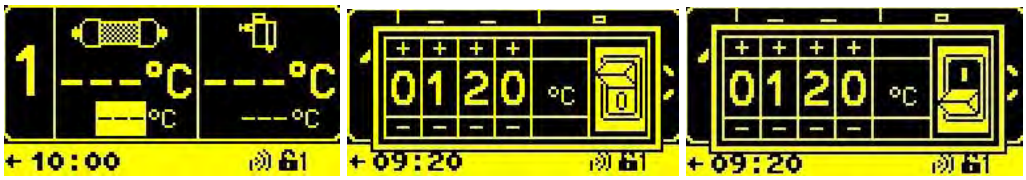
4.4.3 TANK TEMPERATURE:

Press the  key to access the temperature menu. Press OK to program the desired temperature with the navigation keys.



4.4.4 HOSE/GUN TEMPERATURE:

Press the  key or the right /left navigation keys again to configure the temperature of the hoses and guns. After entering the value, remember to enable the switch to activate each heating zone.



To program hose/gun 2, repeat the same process as described.

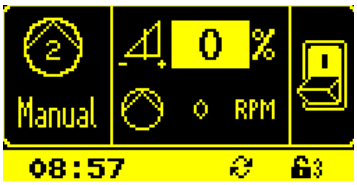
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.5 PUMP SETTINGS:

Press the  key to access the pump settings menu.

Choose manual or auto mode with the +/- keys.

In manual mode, you must enter the nominal speed percentage at which the pump must rotate.



Press the right/left keys to access the weight configuration parameters for auto mode.

Remember to enable each pump with the switch.

Press the  key to operate the pumps.

4.6. SETBACK:

Press the  key to enable the programmed setback mode.

Press the right/left keys to select the setback time and/or start the clock.

If the temperature difference is enabled in the settings/rest menu, then the temperature of the machine will drop to the programmed one during rest.

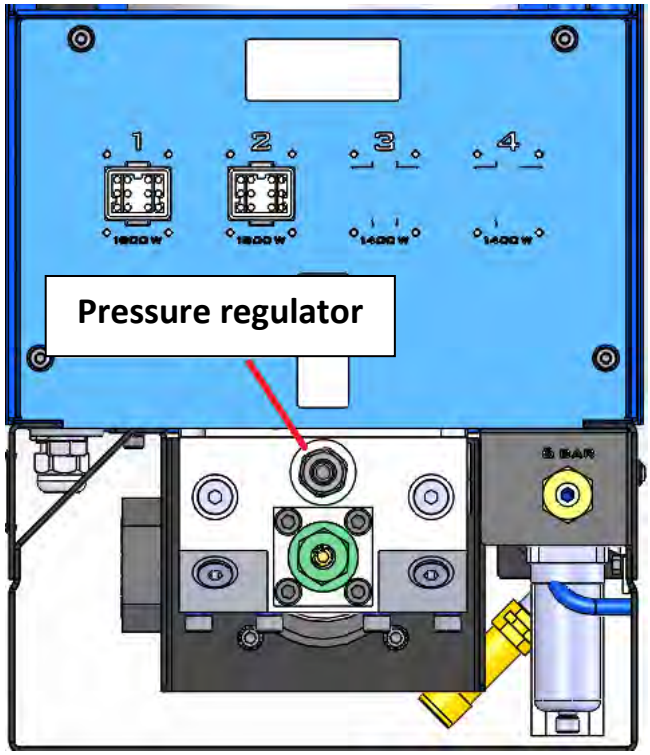
If this temperature is not enabled, the machine will cool down without any limit

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

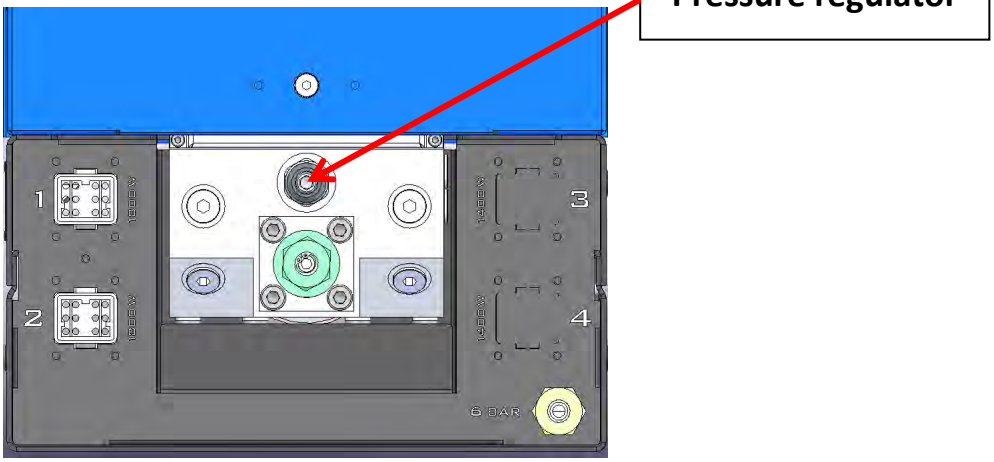
4.7. OUTPUT PRESSURE ADJUSTMENT:

The adhesive output pressure is controlled by the regulator on the manifold. Turn the regulator stud with an Allen wrench until the pressure is suitable for the application.

ISOMELT MINI



ISOMELT MINI PLUS



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.8. DRY AIR SYSTEM (*ONLY FOR ISOMELT MINI*):

The equipment has a pneumatic system to maintain the tank pressurized at 0,3 bar with dry air or N_2.

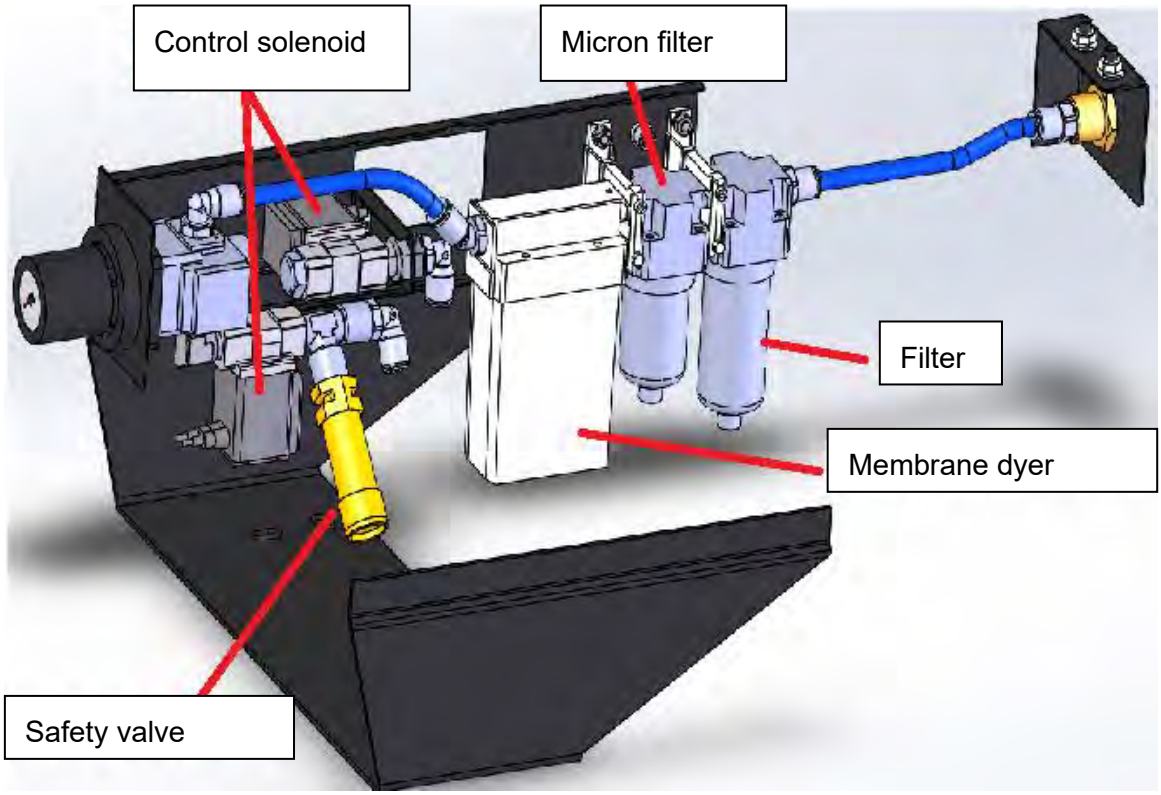
When the lid is closed the equipment eliminates the warm air of the tank and introduces dry air or N_2.

When using nitrogen remove the dryer and the filters to prevent nitrogen loss.

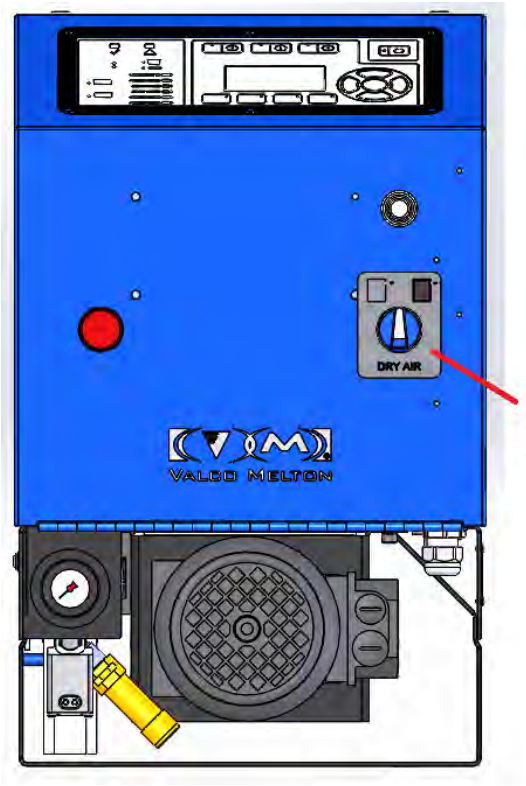
This system is independent from the rest although the equipment is off.

To actívate it use the dry air selector.

Always the adhesive used is PUR it's necessary to maintain the dry air system on to prevent the crosslinking of the adhesive.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

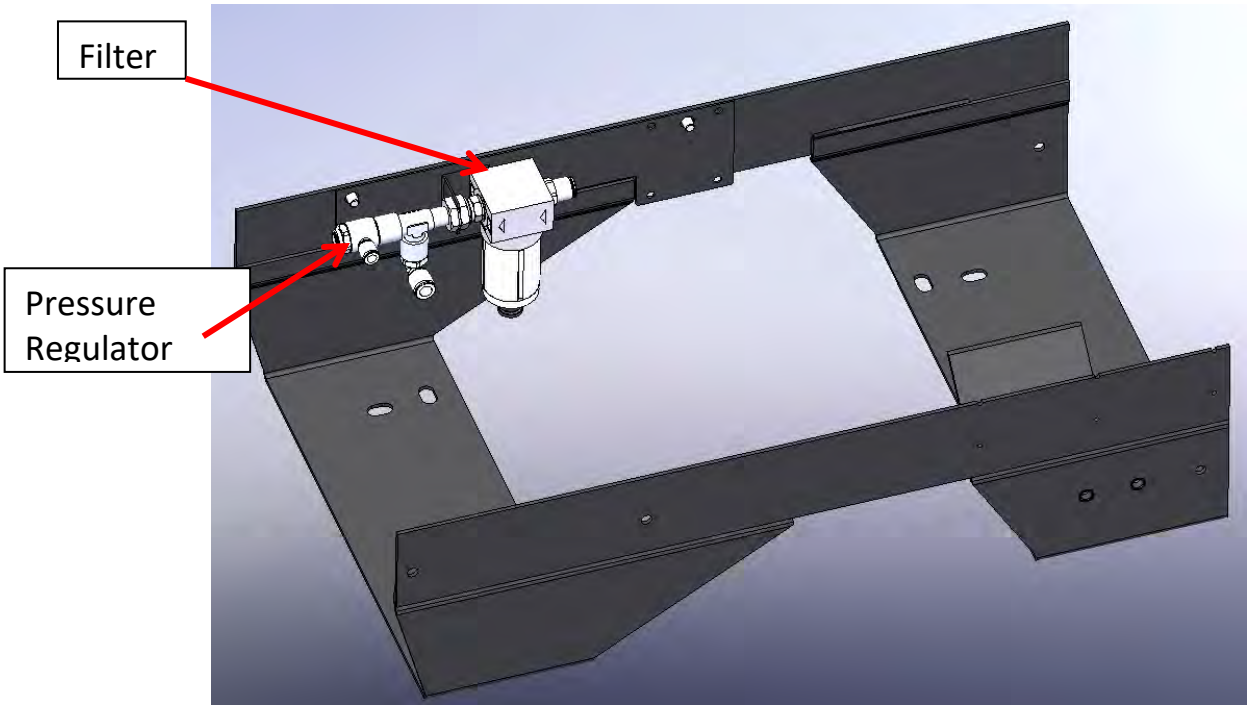


Dry air system On/Off button

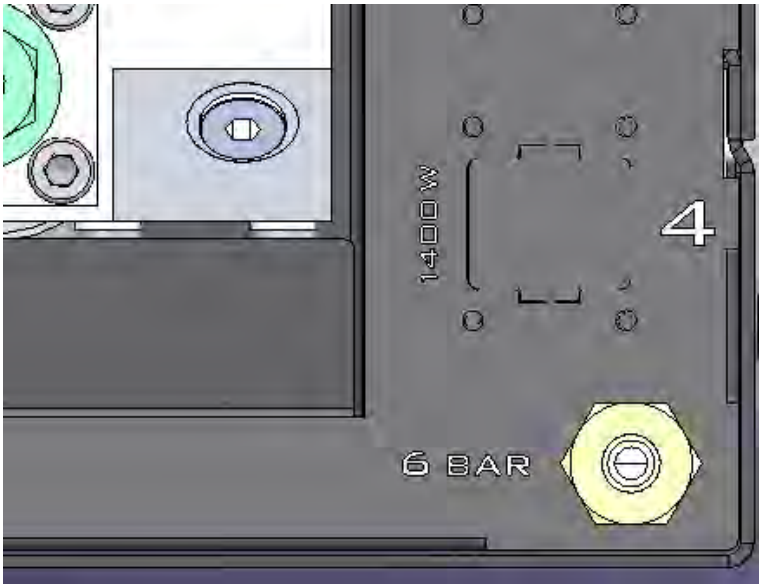
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.9. PUSHER CYLINDER MOVEMENT ADJUSTMENT (*ONLY FOR ISOMELT MINI PLUS*):

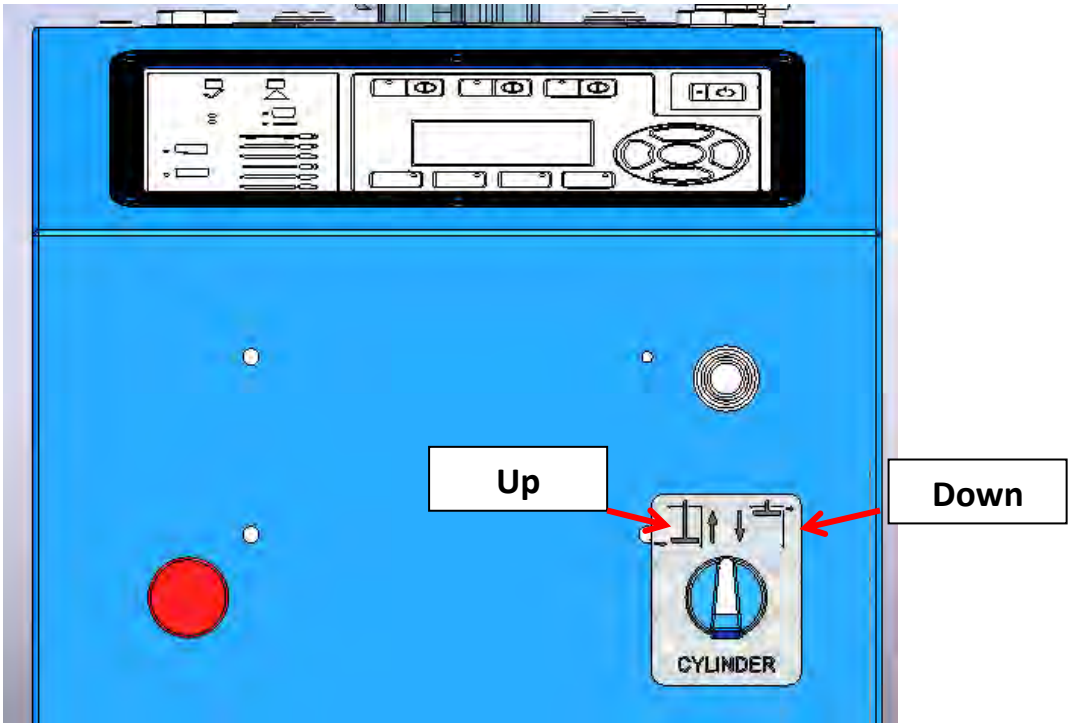
The equipment has a pressure regulator to adjust the pressure of the movement of the pusher cylinder downwards.



When the cylinder moves up, it operates at the system inlet pressure.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



Lowering of the cylinder:

1- When you close the lid, it activates the micro security (lid closed).
2- Turn the selector of the cylinder control plate to the lowering position.
3- When the equipment activates the pump, the cylinder begins to push the block of adhesive.

The cylinder will move downward only if the next three conditions are true:

1- The lid is closed.
2- The selector is in lowering position ↓.
3- The pump is working.

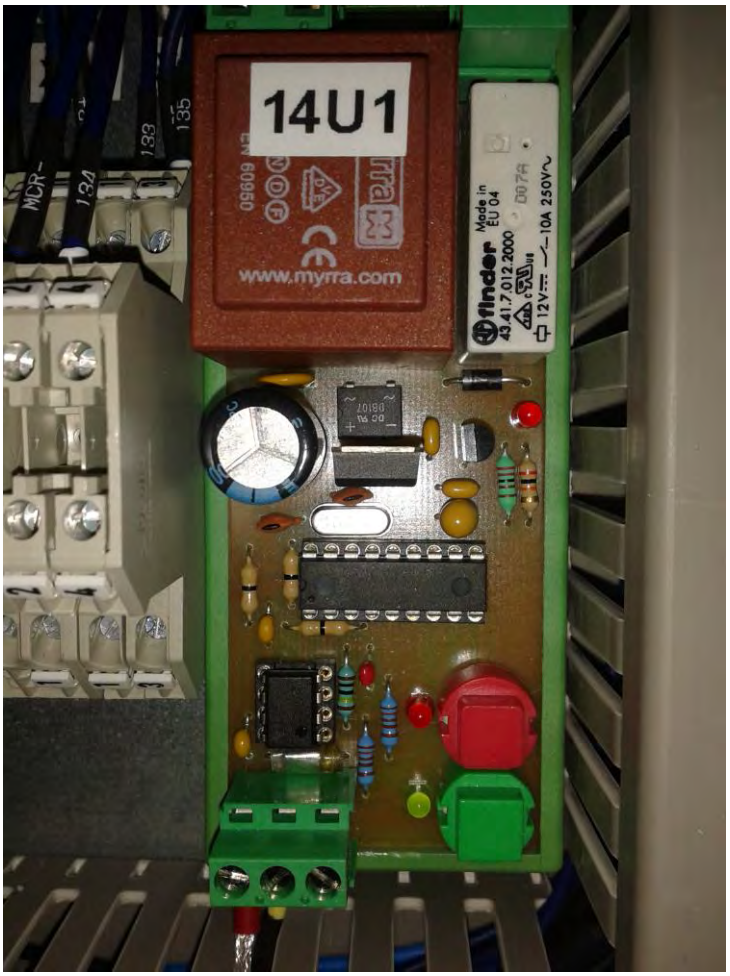
Rise of the cylinder:

1- When you close the lid, it activates the micro security (lid closed).
2- Turn the selector of the cylinder control plate to the rising position.

The unit brings a level sensor that activates a beacon of light when there is no adhesive.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4.10. LEVEL SENSOR ADJUSTMENT



1º When the adhesive level is below the probe, press the red button.
The red light flashes, then press again the red button and the minimum level is set.

2º Fill the tank covering completely the level sensor, press the green button.

The green light flashes, then press again the green button and the level sensor is calibrated.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 5
OPERATION

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

WARNING: This machine should only be used by qualified personnel who understand all the procedures and are familiar with the necessary safety measures.

5.1. INTRODUCTION:

This chapter explains how to use the machine.

First of all, make sure that the person operating the machine is duly protected and that all safety measures are being followed.

5.2. COMMISSIONING:

1. Press the on button.
2. Check that the machine adjustments are appropriate for the desired operation; otherwise readjust them (see chapter 4).
3. When the machine is at the programmed temperature and there are no alarms activated, the pump permission will turn on.
4. Permission from the main machine is given (in case they are connected). The system has two terminals for external connections.
5. The application can start.

When the machine is connected to a main machine, it won't run until the external permission is given.

These terminals are shorted at our factory.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

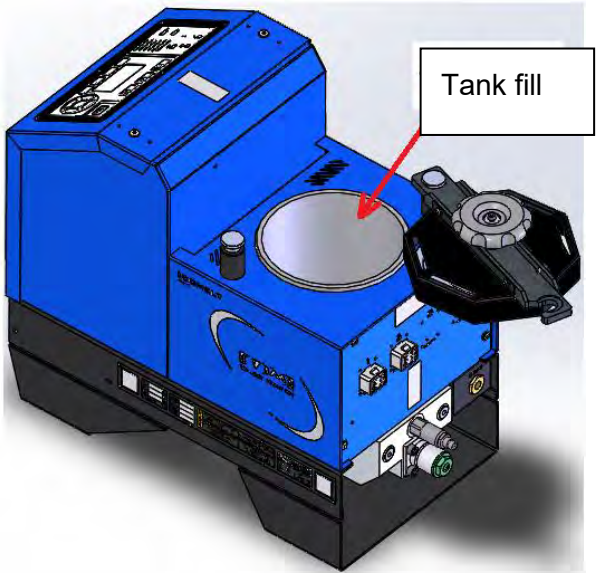
Filling the Tank:

Before filling the tank, put on goggles, gloves and a long-sleeve shirt to prevent possible burns caused by hot adhesive splashing.

Make sure that the tank is clean and free of foreign particles.

Fill the heated tank with the hot–melt material up to a maximum of 10 mm below the edge of the tank.

Close the cover of the tank immediately after filling it.



Note: Never operate the applicator if the tank is empty. If the quantity of hot–melt material is very small, the tank may overheat leading to the carbonisation of the hot-melt material and the formation of deposits inside the unit. This may lead to unnecessary downtimes later on.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

Filling the Tank (Only Isomelt Mini Plus):

1. The adhesive is received from the supplier (Figure A).
2. Take the bag out and cut the bottom part with a cutter (Figure B).
   - For big consumptions, cut a circle of 10 cm diameter and centred in the bottom part. The adhesive should be like “Figure C”.
   - For small consumption, cut a circle with of 5 cm diameter and centred in the bottom part.

Figure A

Figure B

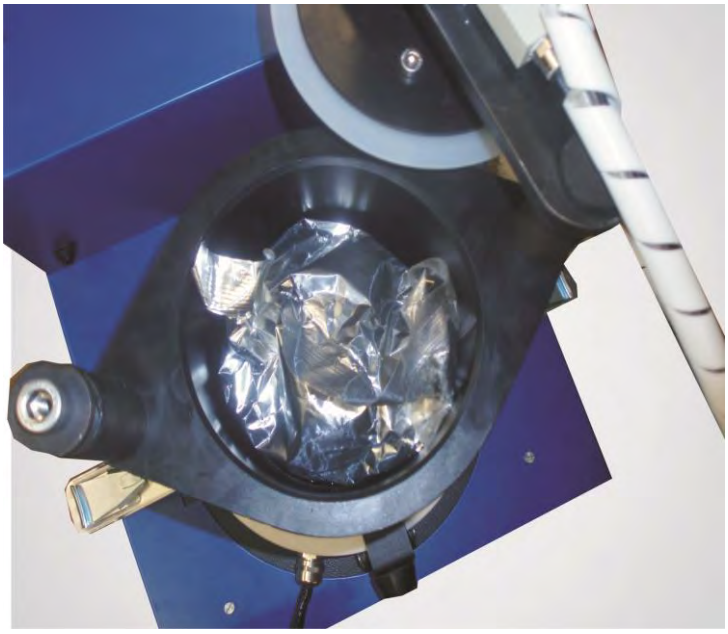
Figure C

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3. Insert the PUR product (Figure D). The block should look as indicated in figure E. Do not remove any more of the packaging. Close the cover and turn the cylinder selector to the down position ↓ (Figure F). When the equipment activates the pump, the cylinder begins to press the adhesive block.

Figure D

Figure E



4. When the product is finished, turn the cylinder selector to the up position ↑ (Figure F) and the cylinder will rise. Using gloves, carefully remove the used bag and insert another block by repeating the above steps.

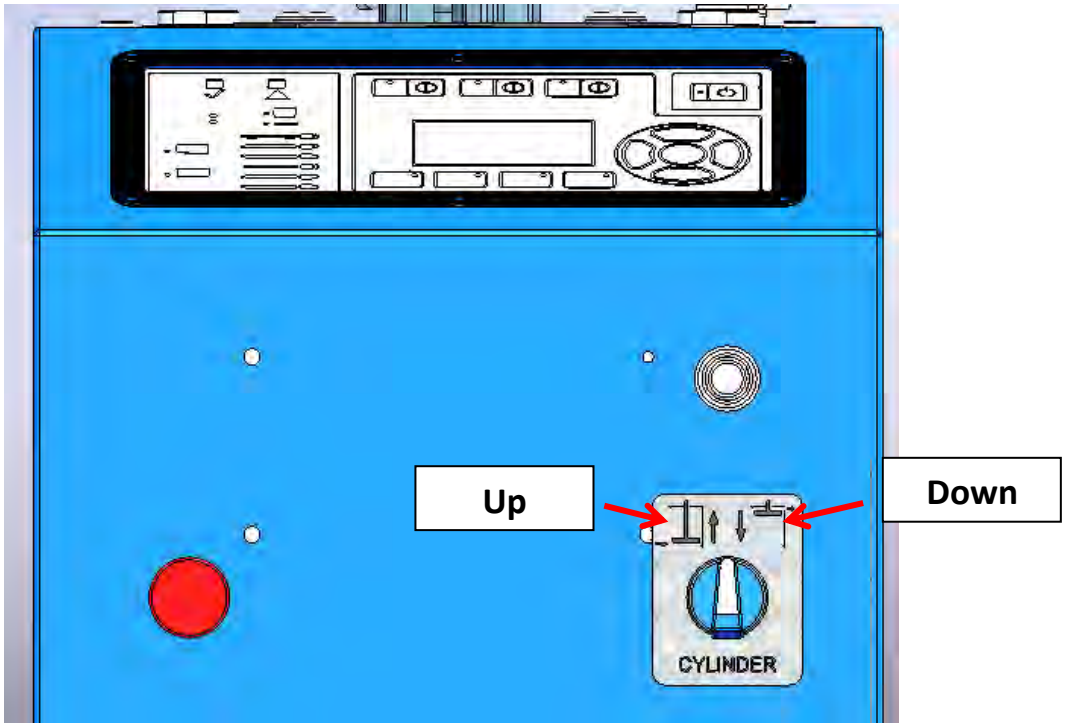


Figure F

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

5.3. STOPS:

Two cases are distinguished:

Stop pumping:

If you just want to stop pumping, you must turn OFF the pump pumps screen.

Temperature control will maintain the temperature of the equipment.

If this stop will be quite long, we recommend turning the Low Maintenance function.

Total stop:

For total disconnect the equipment press the power switch.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 6
MAINTENANCE

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

WARNING: The maintenance operations indicated in this chapter must only be done by qualified personnel who understand the steps to take and are familiar with all safety measures.

To apply the appropriate torque when assembling any part of the machine, please check the torque instructions in Annex B.

6.1. INTRODUCTION:

This chapter outlines the procedures for proper maintenance of the ISOMELT MINI machine. Following these procedures will ensure safe operation and a long useful life of the machine. Carefully read Chapter 1: Safety before starting any maintenance process.

General recommendations for proper maintenance:

- Keep the tank as full of adhesive as possible. This will reduce the formation of soot on the tank's inner walls.
- Keep the tank cover closed. (Any contamination in the tank will increase the possibility of low performance. Humidity, dirt and sooty adhesive are the main causes of injector obstruction).
- Use a cheesecloth to remove material leaking from the joints and other connectors when the machine is hot, but not in operation.
- Completely empty and clean the system when there are frequent obstructions due to dirt and soot.

Before beginning, verify that the operator is duly protected and all safety measures are being followed.

1º Switch off the air at the mains.

2º Switch off the main switch.

3º Lock the main switch in place.

4º Make sure the electricity is off.

5º Follow applicable safety and health standards.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

6.2. MAINTENANCE RECOMMENDATIONS:

The following table shows how often maintenance operations must be done.

Frequency	Maintenance
As necessary	Change manifold joints and filter cartridge.
Weekly (40 hours)	Clean the outside surface of the machine. Use a liquid cleaner recommended by the adhesive manufacturer.
	Inspect all hydraulic, electrical and pneumatic connections. Change or repair those necessary.
	Check the safety valve.
6 months (2000 hours)	Clean the electric box fan filter.
	Clean the tank grill.
	Inspect all hydraulic, electrical and pneumatic connections. Change or repair those necessary.
	Check the conditions of the micro switches. They must be clean and adhesive-free.
	Bleed the air filter.
Annually (4000 hours)	Change the adhesive filter.

Vacuum or remove dust and adhesive remains with a soft cloth, especially from the manifold and purging valve.

Periodically clean the control panel with a soft cloth. Do not use dissolvent on the panel as they could corrode the controls.

If using a cleaning agent, make sure it is compatible with the adhesive being used.

Check with the adhesive manufacturer if you have any doubts.

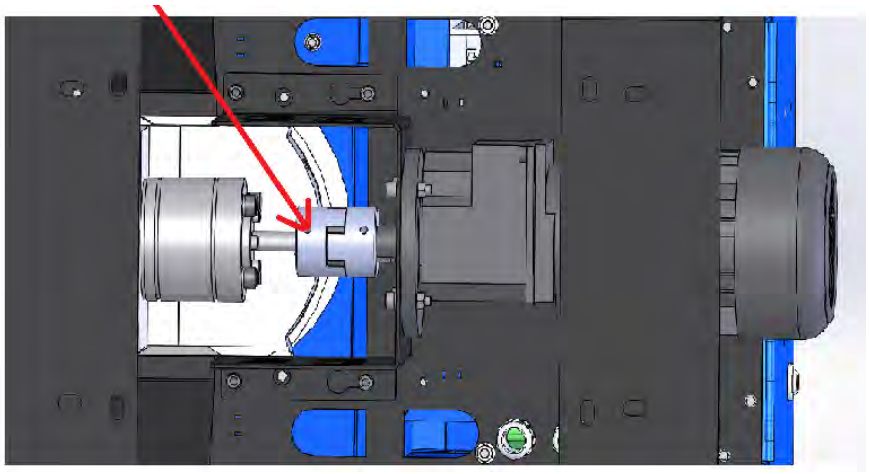
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

6.3. MAINTENANCE PROCESSES:

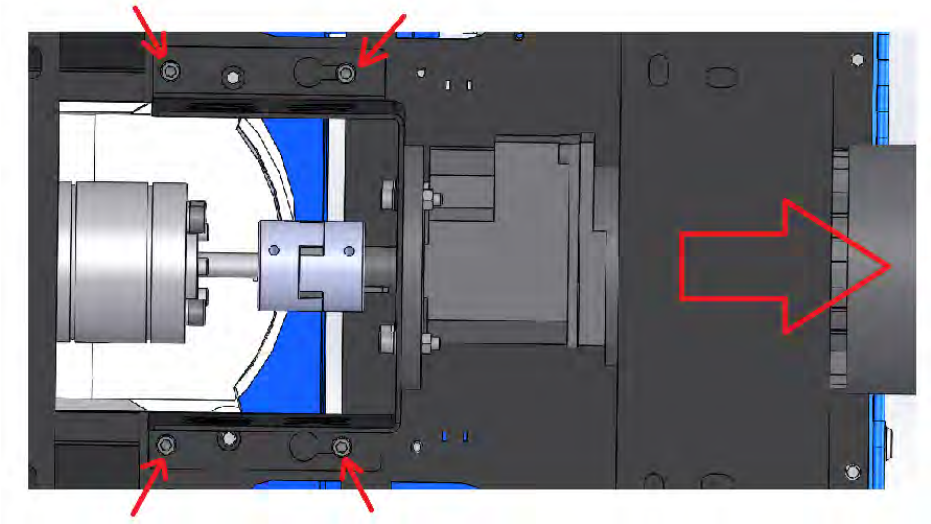
6.3.1. PUMP REPLACEMENT

Follow these steps to replace the pump:

1. Make sure the machine is off.
2. Release the prisoner holding the coupling to the pump shaft with an Allen wrench.

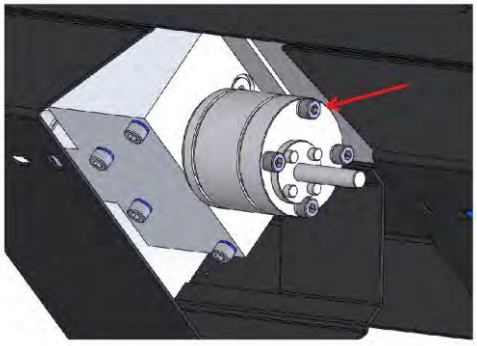


3. Loosen the four Allen screws that secure the motor to the frame support team, to remove the engine, support and link back, leaving the pump.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4. Loosen the four Allen screws that secure the pump to the manifold.



Place a new pump and follow the above steps in reverse, for re-assembly.

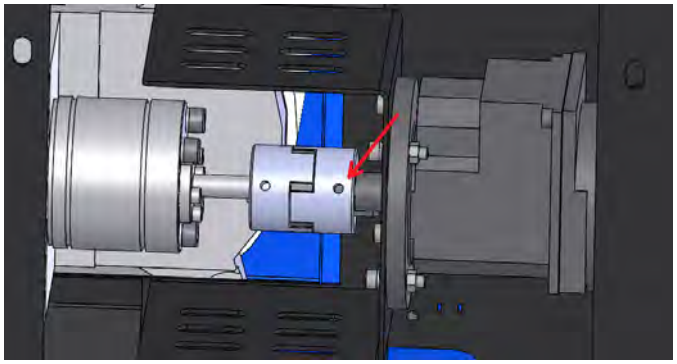
For single pump apply a torque of 22 N • m.
For double pump apply a torque of 75 N • m.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

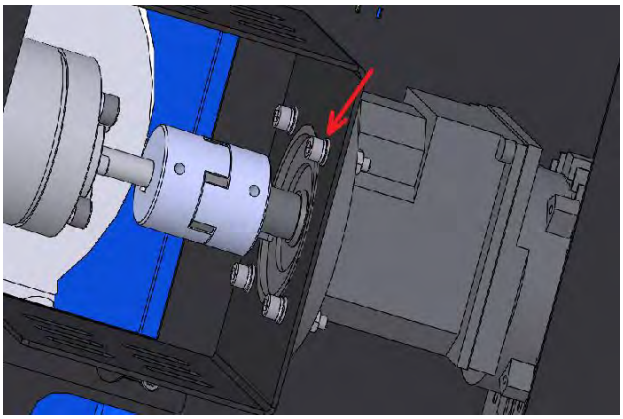
6.3.2. MOTOR REPLACEMENT:

Follow these steps to replace the motor:

1. Make sure the machine is off.
2. In the bottom of the device, release the stud holding the coupling to the motor shaft.



3. Loosen the four hex nuts that secure the motor to the support, to remove the motor backwards.



4. Place the new engine and follow the reverse process explained above.
5. For the screws that attach the motor to the bracket applying a torque of 8.7 N • m.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

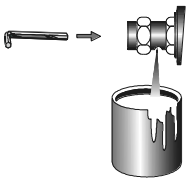
6.3.3. BLEEDING:

The bleed process is done to sweep away small crystallisations that may be produced in the filter and if you wish to depressurise the system.

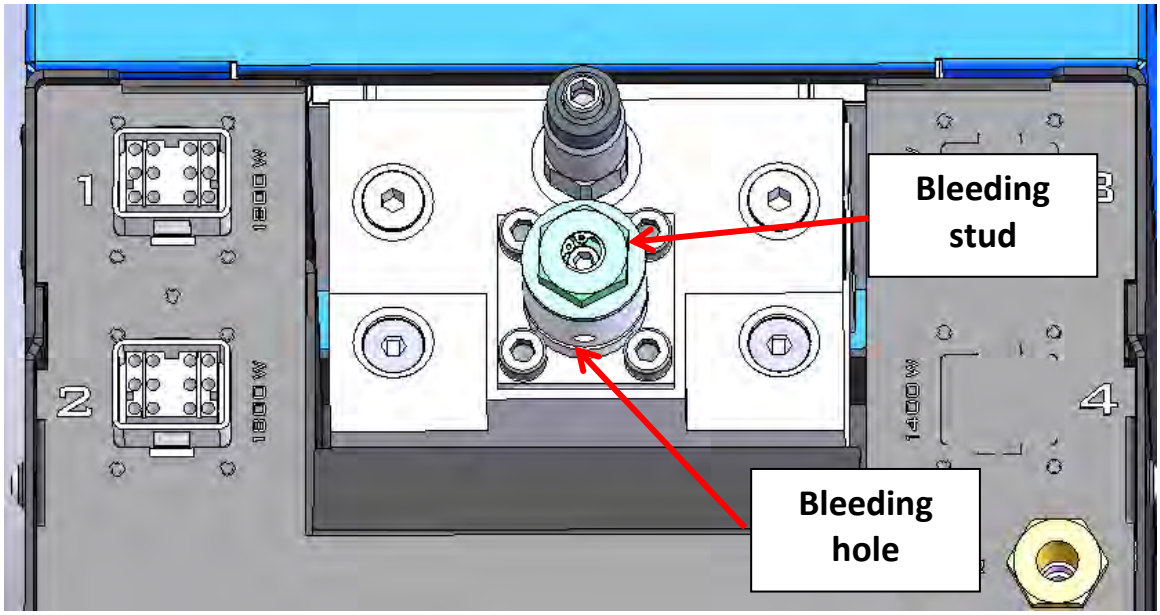
Before purging the filter, put on goggles, gloves and a long-sleeve shirt to prevent possible burns caused by hot adhesive splashing.

Bleeding the filter is not recommended when running PUR adhesives

1. To purge the filter, the applicator must be at the operating temperature.
2. Stopped pump.
3. Place a container below the machine to collect the adhesive in the manifold.



4. Open the bleed valve with a key.



5. Close the bleed valve with a wrench.
6. Return the pressure to the appropriate operating pressure.
7. When the machine is at the programmed temperature and there are no alarms activated, the pump permission will turn on.
8. The application can start.

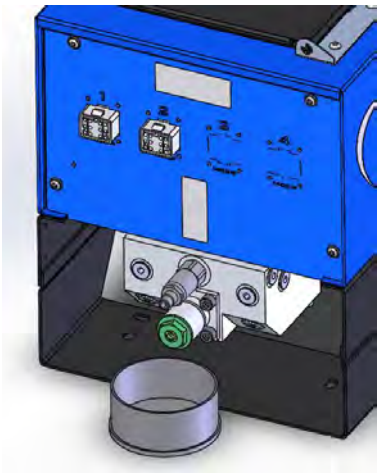
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

6.3.4. REPLACING THE ADHESIVE FILTER:

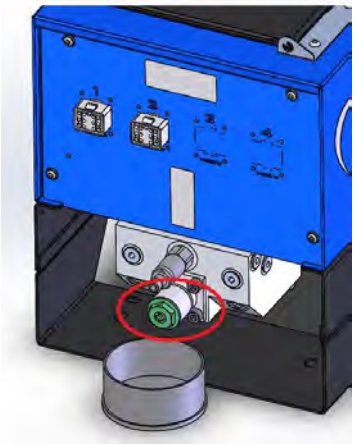
Before changing the filter, put on a face shield, gloves and a long-sleeve shirt to prevent possible burns caused by hot adhesive splashing.

Keeping a filter or mesh in stock to replace when necessary is recommended. This replacement is quick and improves the machine performance.

1. Warm the machine to the operating temperature.
2. Stop the pump.
3. Place an appropriate container under the manifold to collect the adhesive.
4. Open the bleed valve to let the pressure out of the system.



5. Use a spanner to unscrew the filter screw and remove it from the casing.



6. Dismantle the filter, replace the inner mesh and clean all of the other parts.

7. Clean all of the components well and replace any defective ones.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

If using a cleaning agent, make sure it is compatible with the adhesive being used.

Check with the adhesive manufacturer if you have any doubts.

8. Replace the o-rings.
9. Assemble the complete filter again and carefully insert it inside the hot manifold casing.
10. Tighten the filter cover with a spanner and close the purging valve.
11. Put the machine at operating speed and bleed the gun circuit.

6.3.5. REPLACING THE PROBE AND CARTRIDGE HEATERS

The steps for replacing the cartridge heaters and temperature probe are described below.

Before repairing the element, clean the outside to prevent adhesive from getting into the electric box.

1. Release the screws on the electric box cover.
2. Remove the element to be replaced (probe or resistor).
3. Release the element from the ceramic strip or terminal.
4. Peel the 15 mm wire tips.
5. Connect the element to the ceramic strip or terminal.
6. Insert the replaced part into the hole and close the cover.
7. Re-connect the electricity from the gun to the hose.

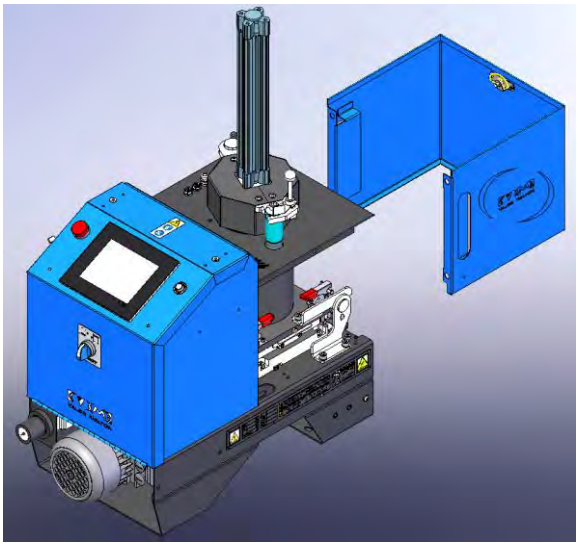
6.3.6. CLEANING THE GRID / MELTER (ONLY FOR ISOMELT MINI PLUS):

Before cleaning the grid and the melter, put on a face shield, gloves and a long-sleeve shirt to prevent possible burns caused by hot adhesive splashing.

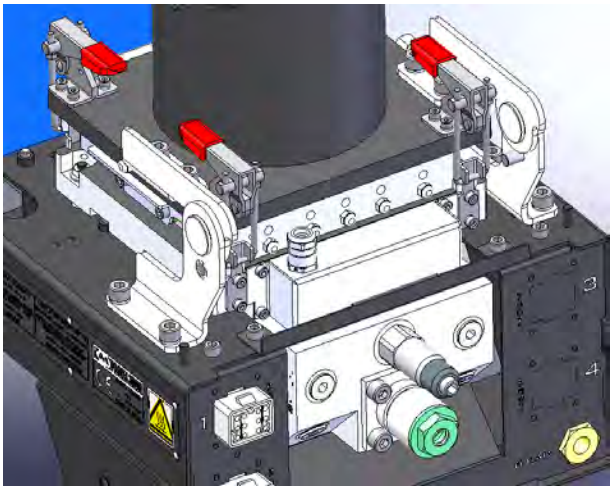
Before removing the components, ensure that the level sensor, the grid and the melter have been disconnected of the electric cabinet.

1. Remove the fairing.

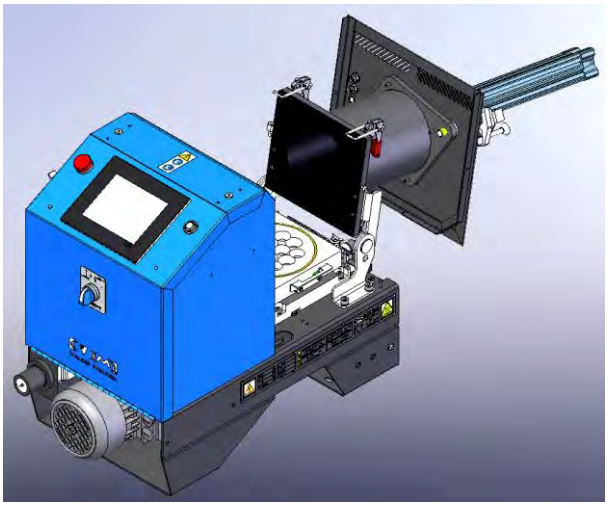
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



2. Release the locking flanges

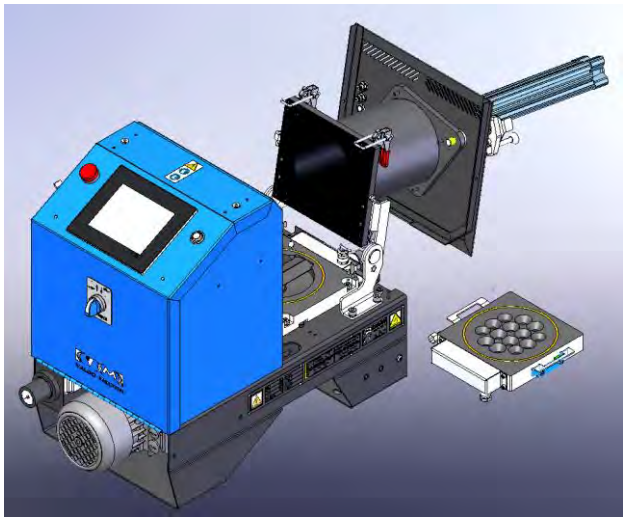


3. Open the tank carefully.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

4. Remove the grid



5. Clean the elements

If using a cleaning agent, make sure it is compatible with the adhesive being used.

It is recommendable to keep the cylinder in up position, to ensure that the bottom part doesn't become dirty.

Check with the adhesive manufacturer if there are any doubts.

6. Assemble the elements. Ensure that the electric elements are connected correctly.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

CHAPTER 7
TROUBLESHOOTING

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

WARNING: The maintenance operations described in this chapter should only be performed by qualified personnel understanding the processes and familiar with the safety measures involved.

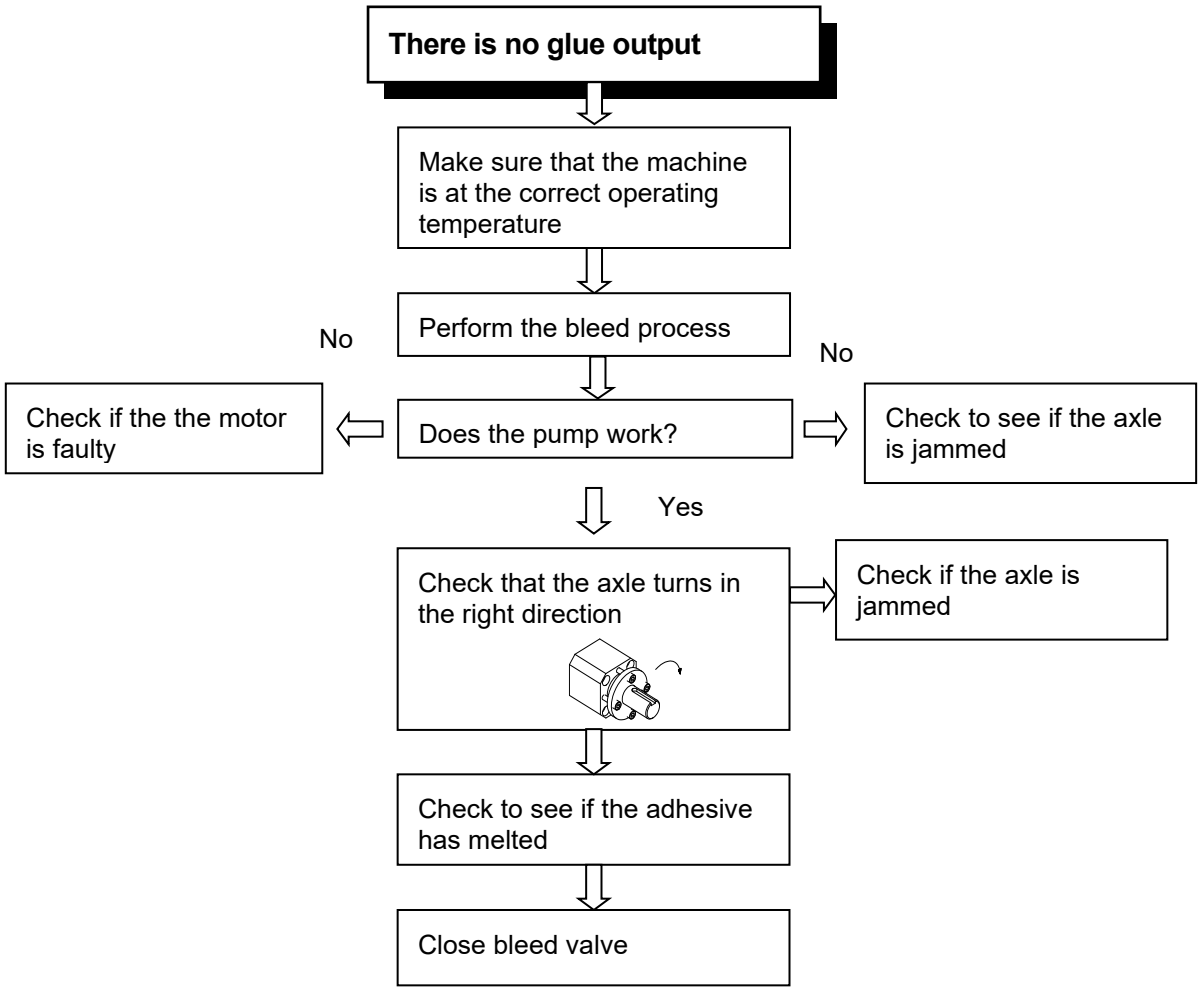
7.1. INTRODUCTION:

This chapter refers to the most common faults in your equipment.

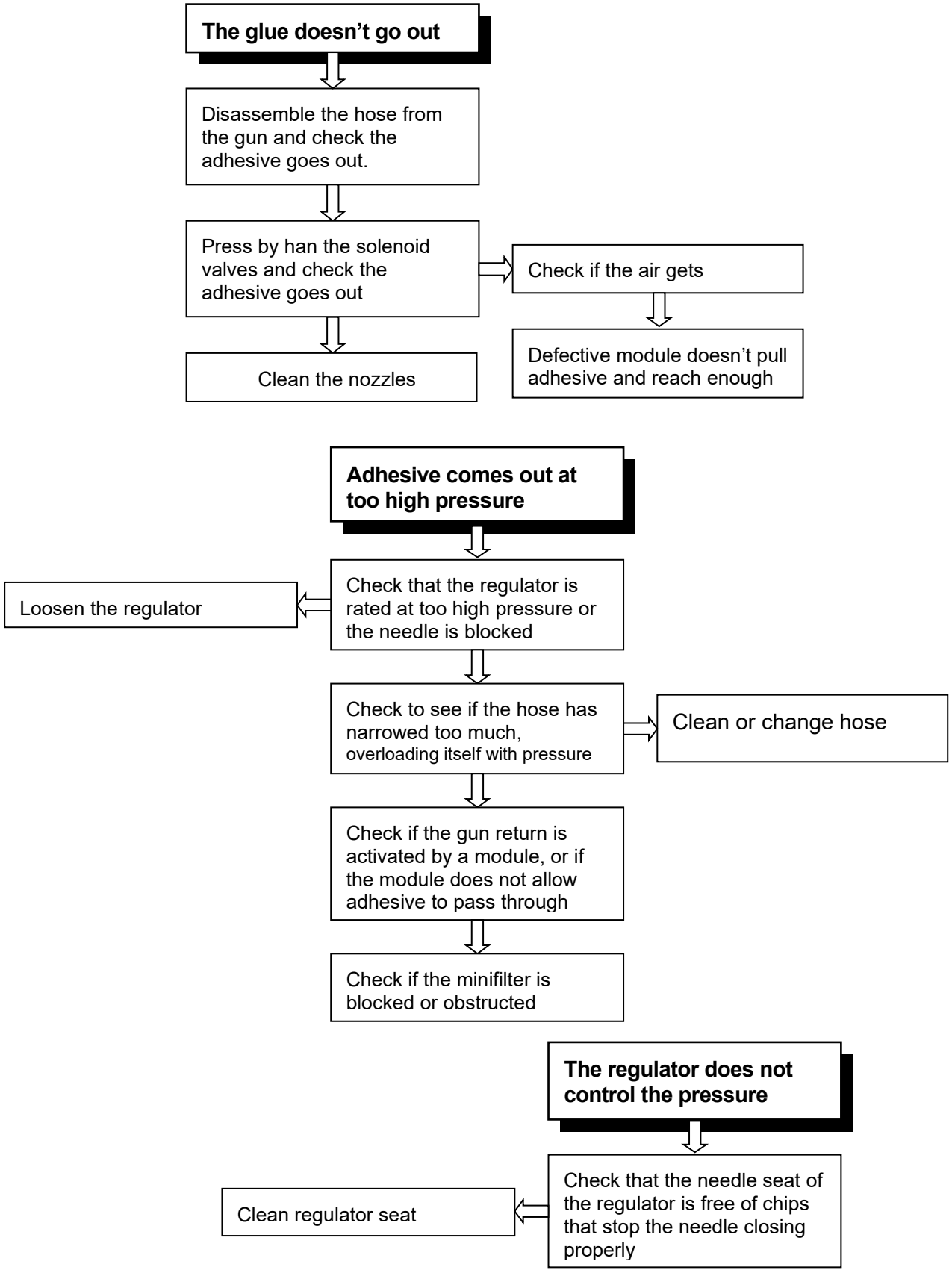
Breakdowns occur when the flow of glue is reduced or stops, or the alert system informs of a fault. Try to solve the problem with the help of this manual.

If the problem cannot be solved with the information provided here, contact your Melton representative.

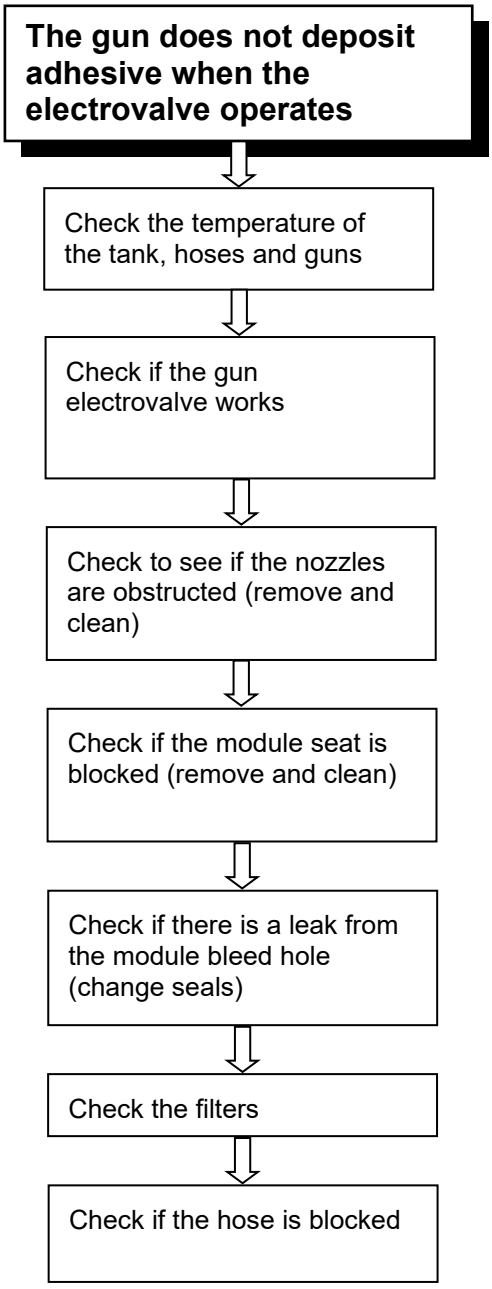
7.2. MECHANICAL FAULTS:



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

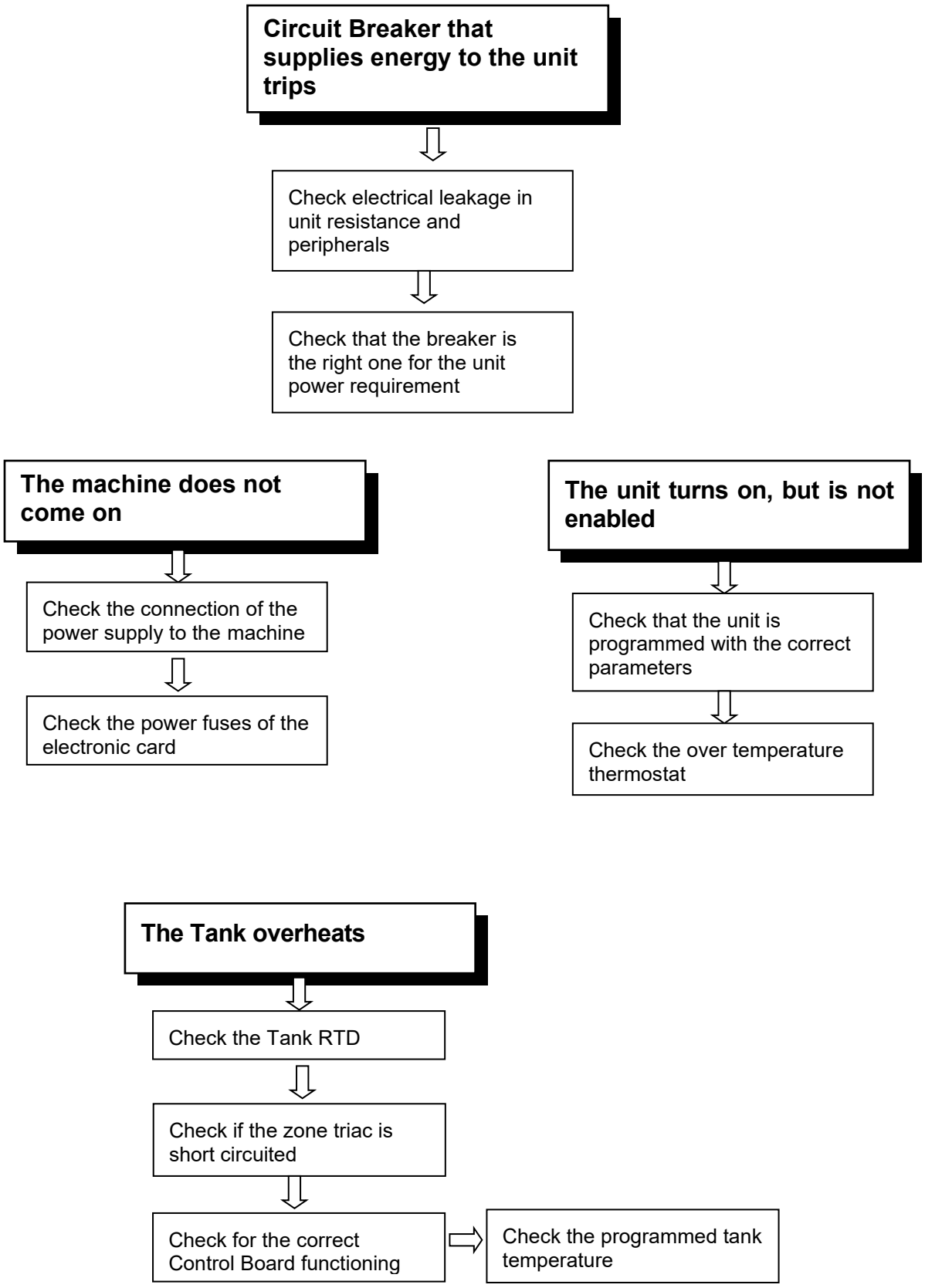


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

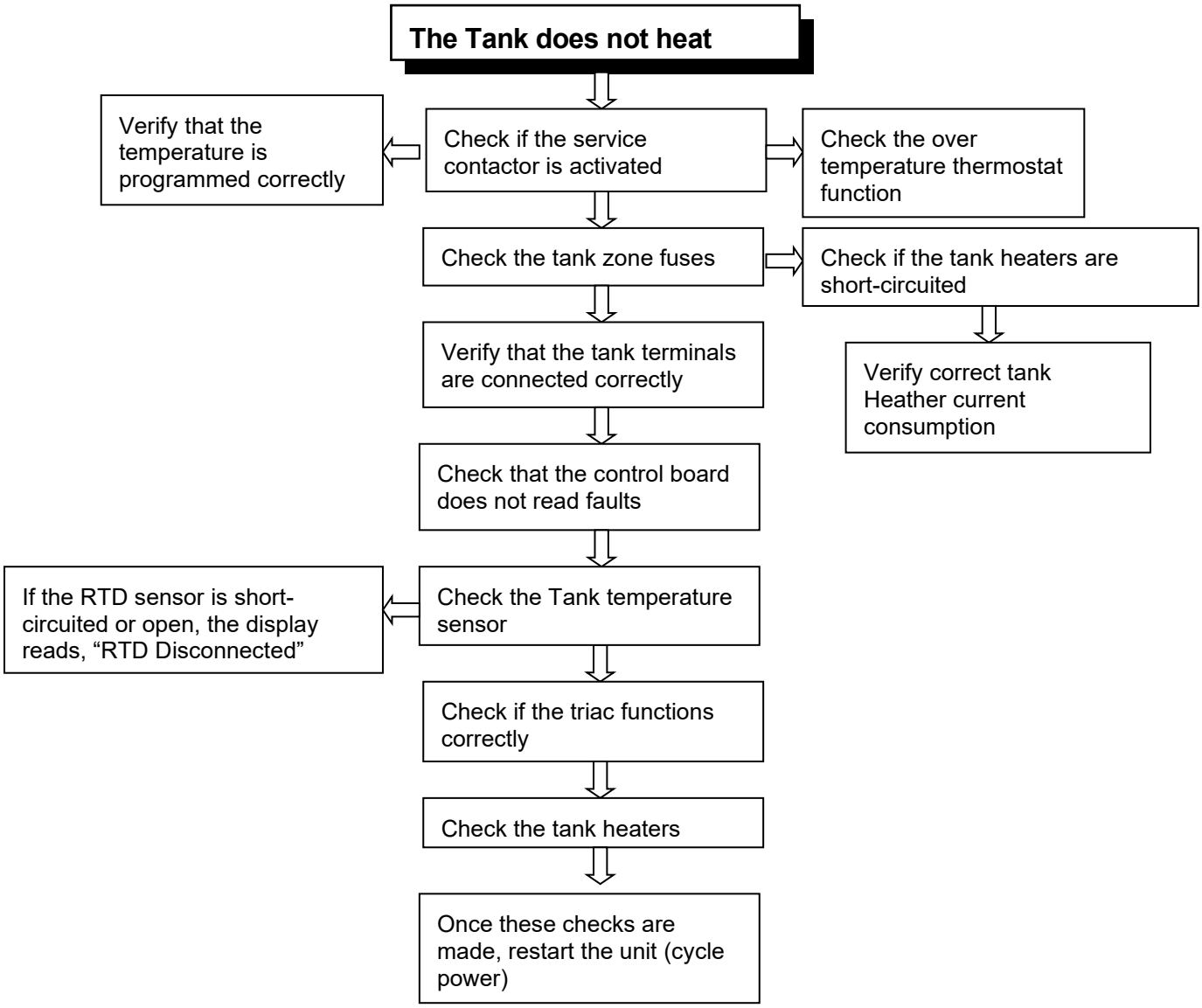


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

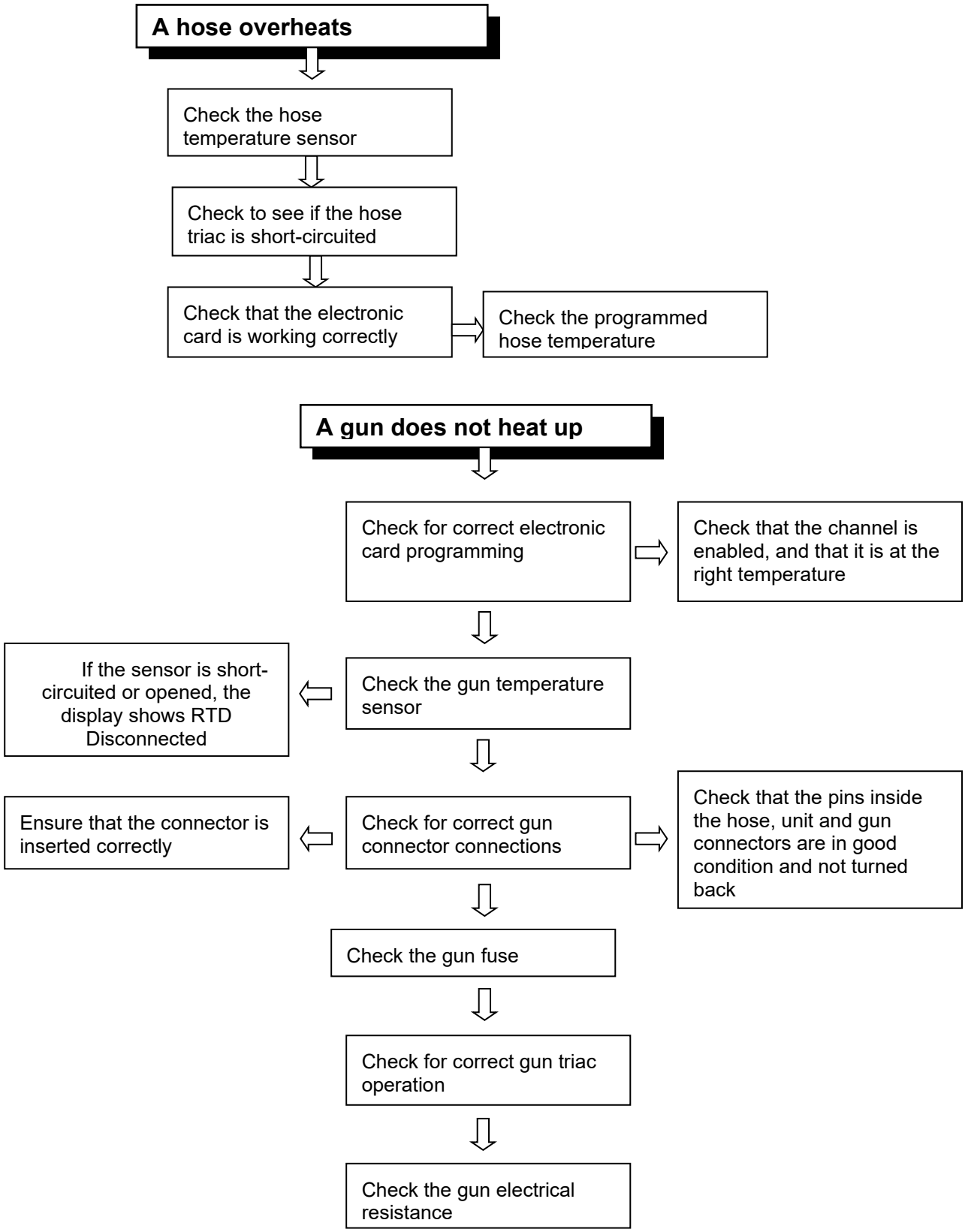
7.3. ELECTRICAL FAULTS:



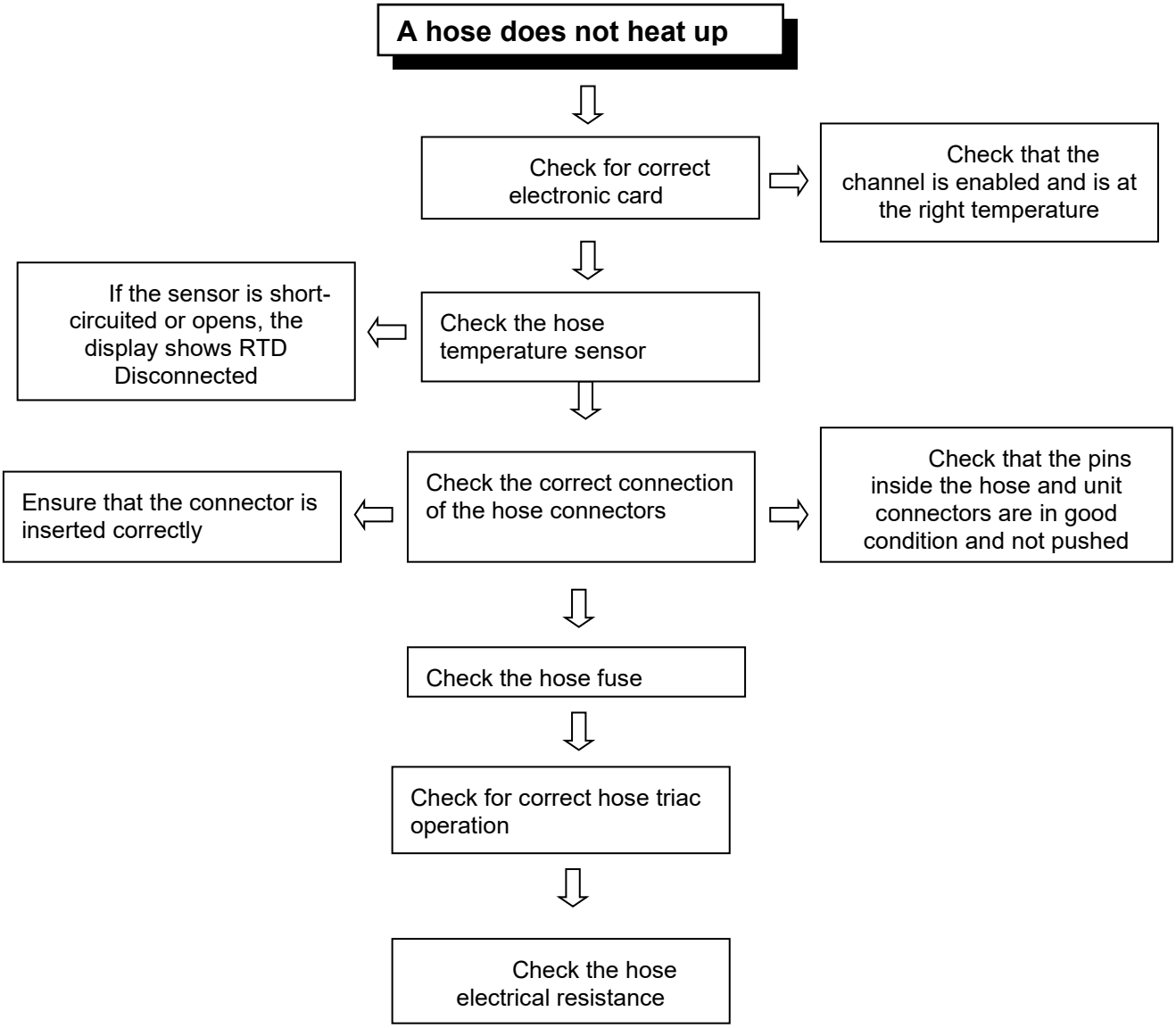
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

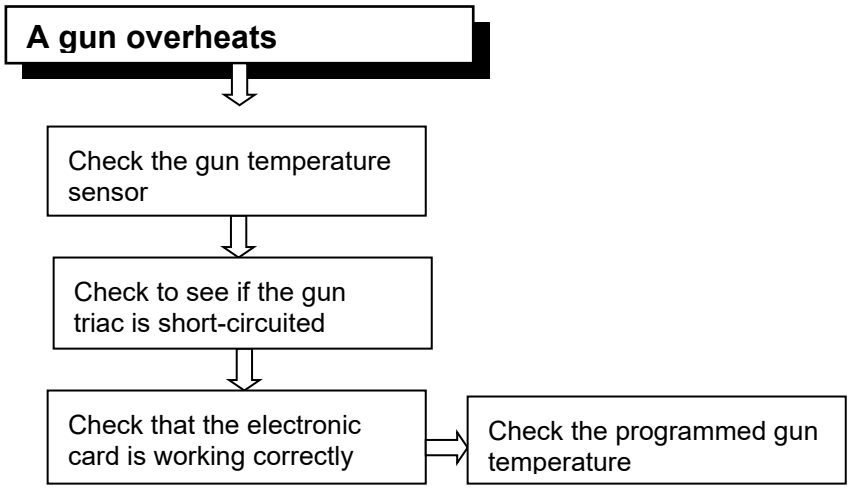


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



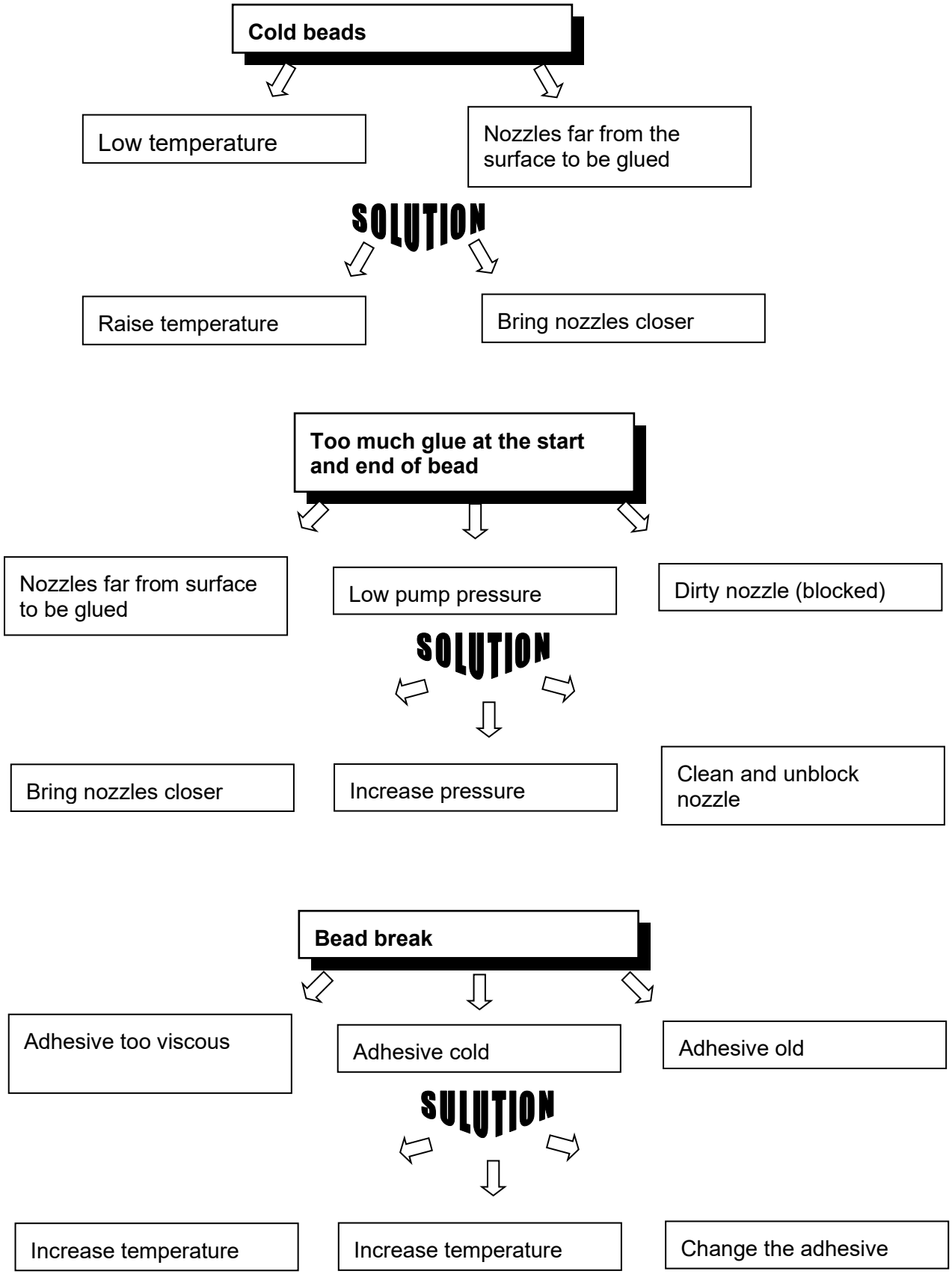
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



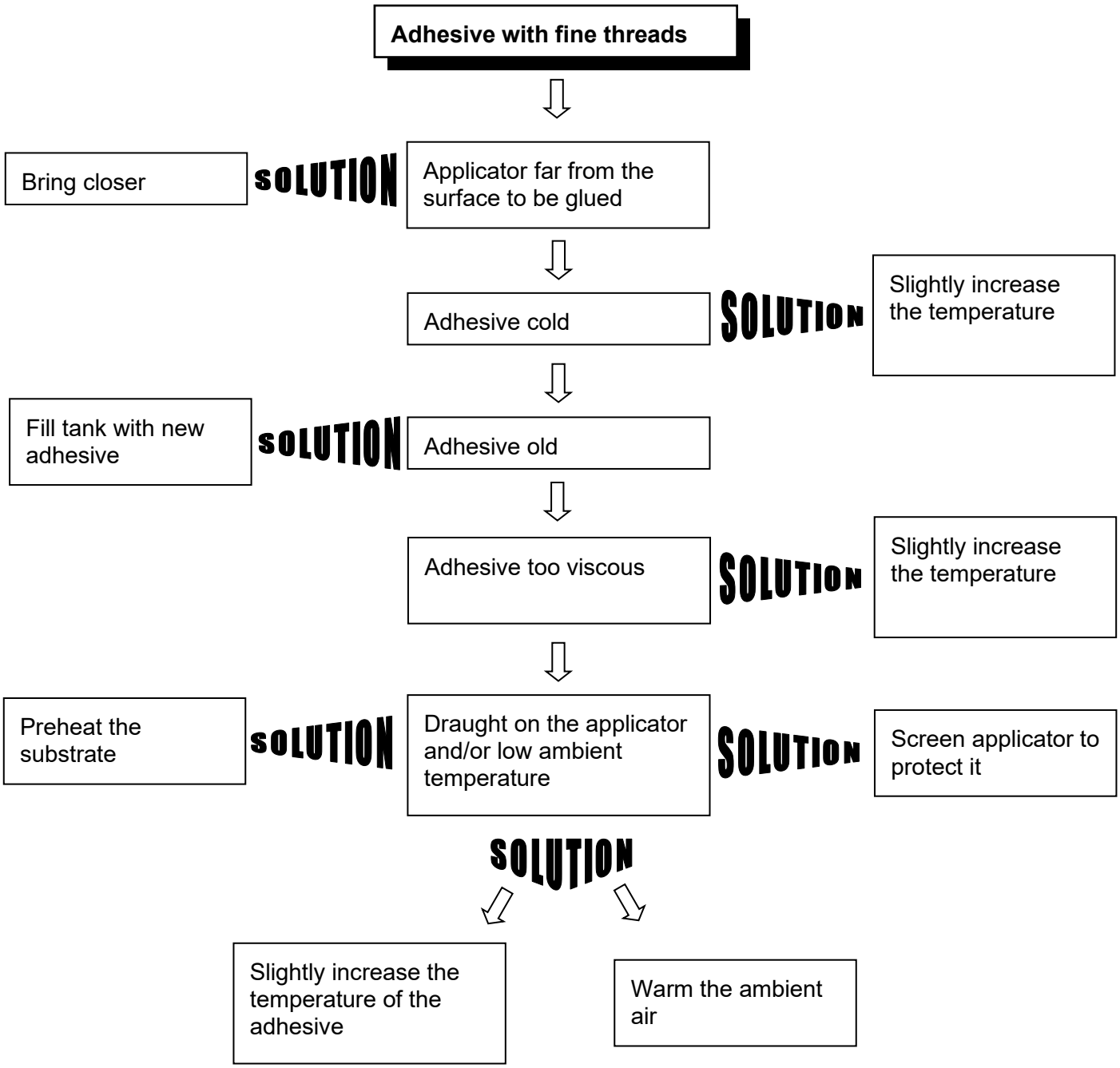


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

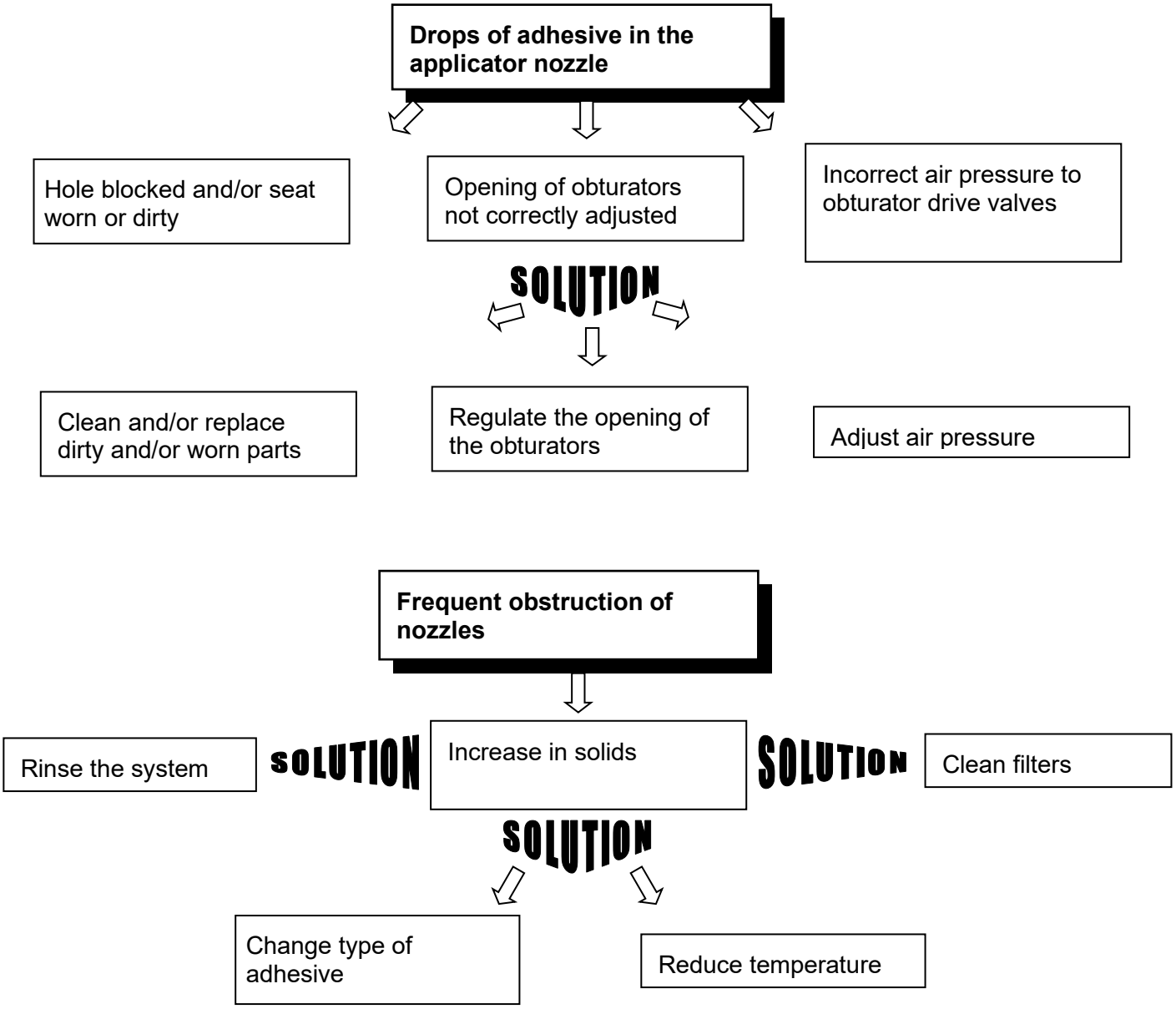
7.4. ADHESIVE APPLICATION PROBLEMS:



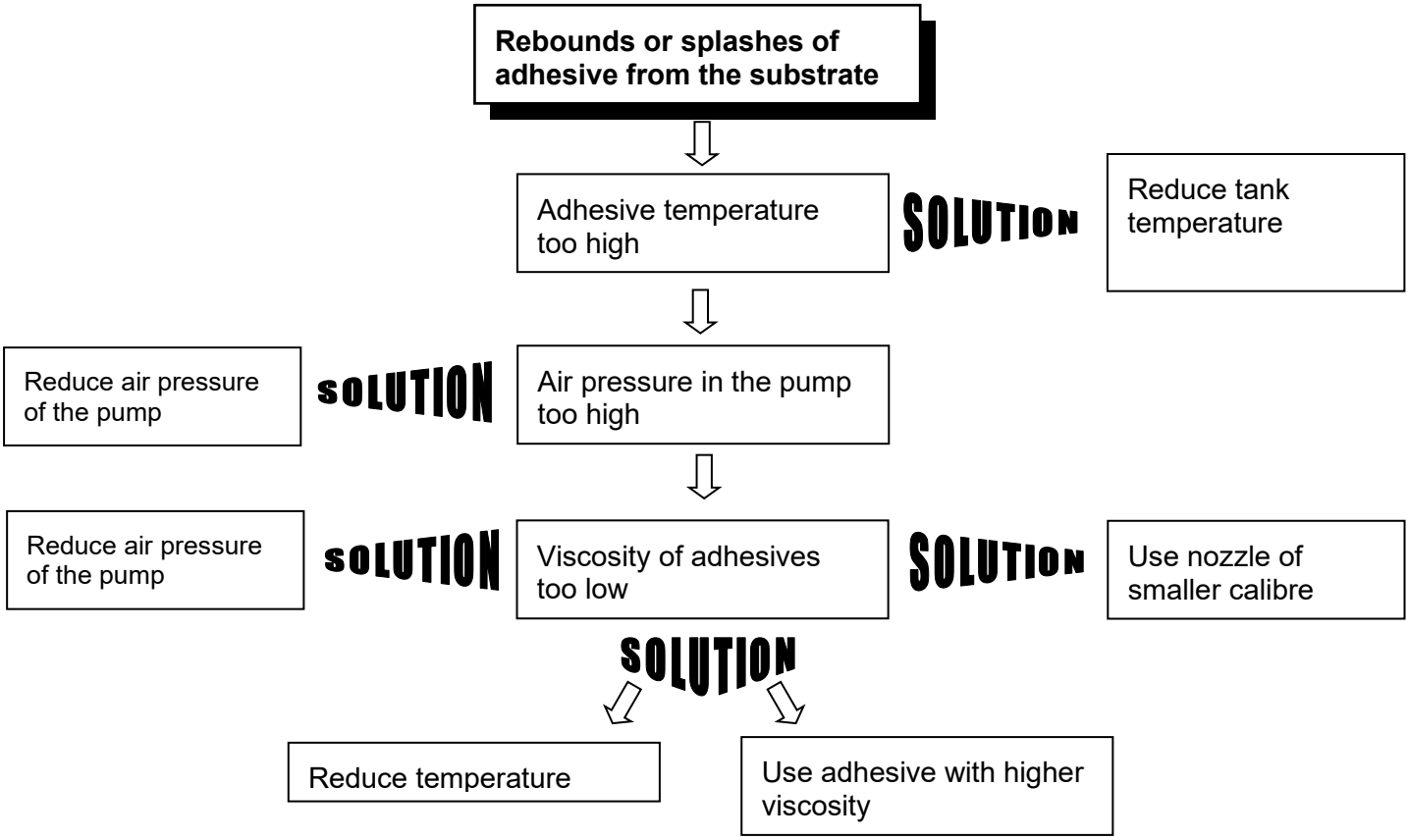
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

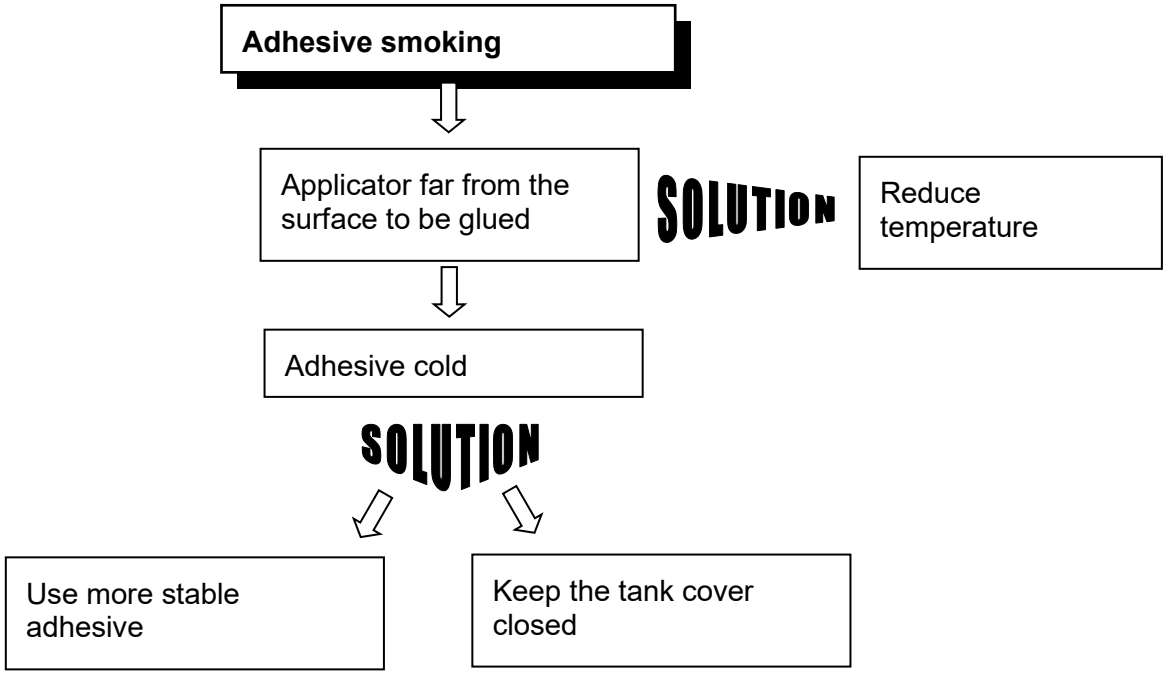


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

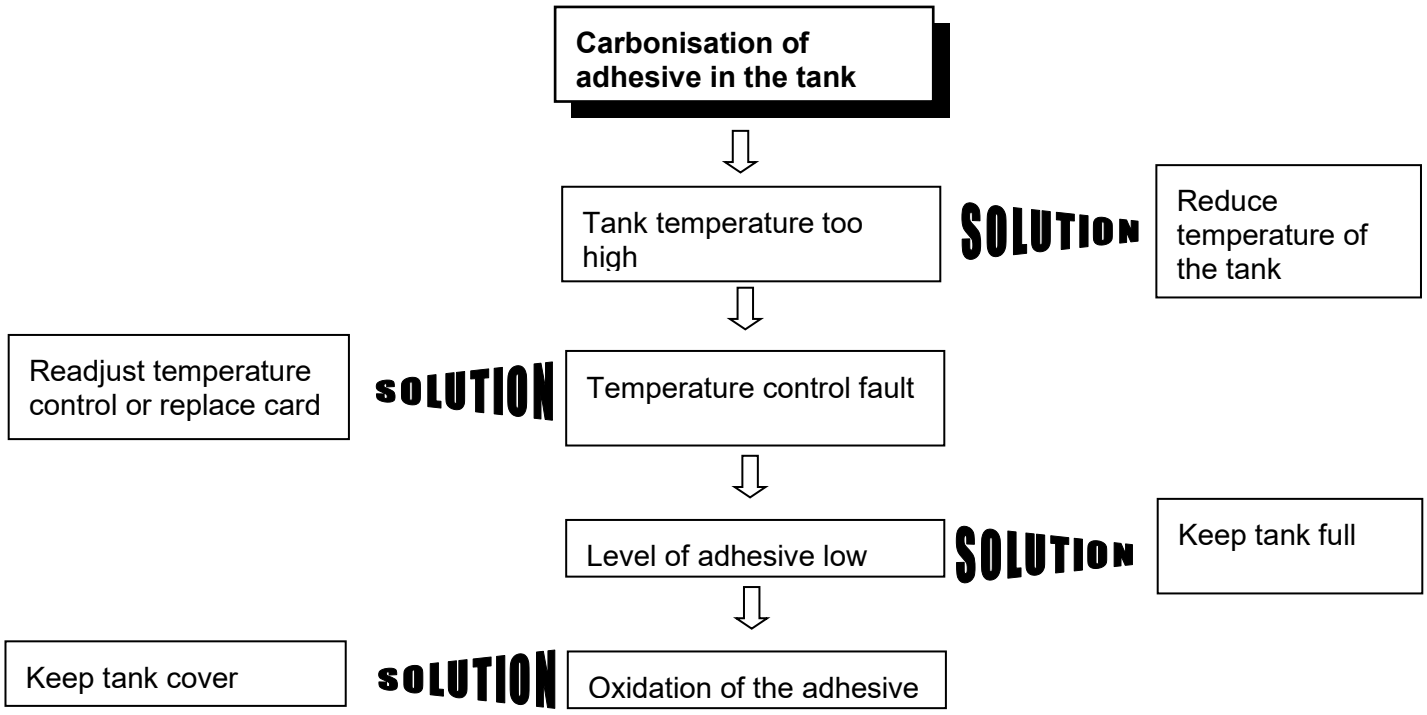


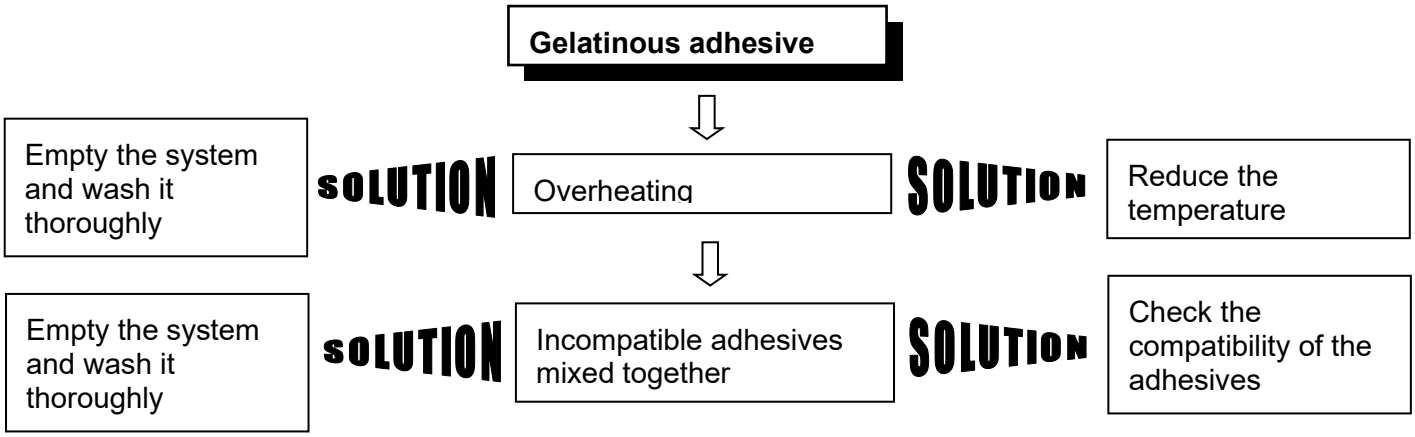
MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



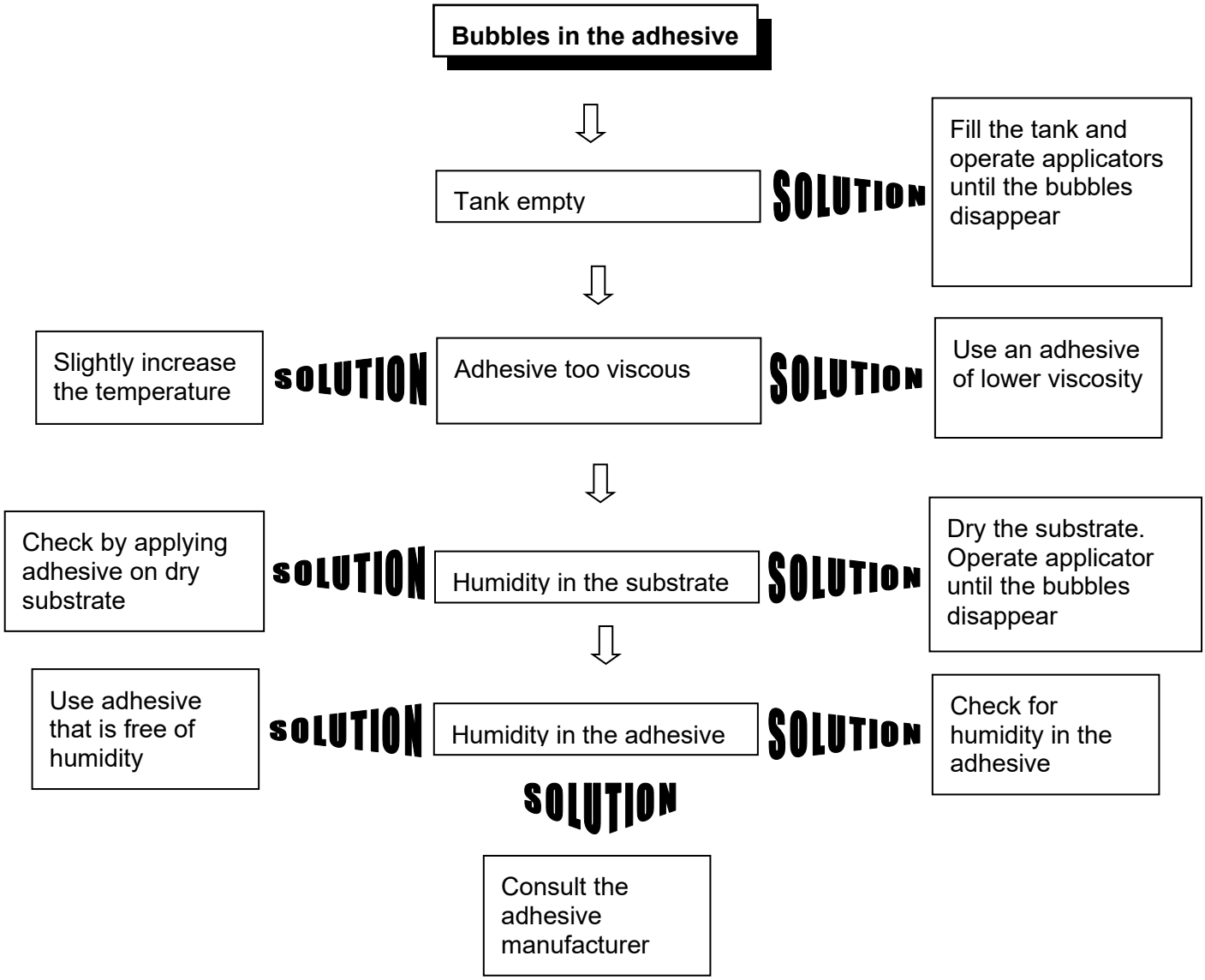


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com





MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

ANNEX A
PNEUMATIC PRESSURE REGULATOR ASSEMBLY (OPTIONAL)

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

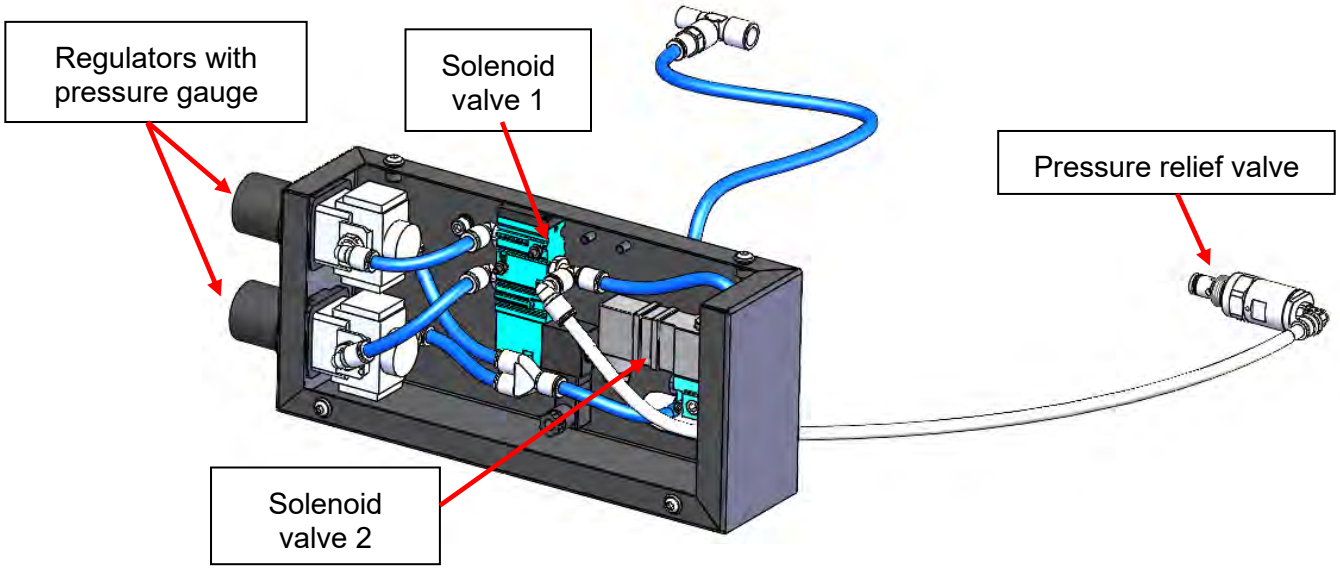
A.1. DESCRIPTION

A.1.1. INTRODUCTION

Pneumatic pressure regulator. Controls the adhesive pressure to the manifold outlet. Prevents overpressure in the guns when starts the application.

A.1.2. MAIN PARTS

The main parts of the system are shown in the following figure:



A.1.2.1. Regulator with Pressure Gauge:

The manual control to select the desired pressure.

A.1.2.2. Solenoid valve:

Opens and closes the air inlet; in other words, it enables or disables the regulation system.

A.1.2.3. Pressure relief Valve:

The actuator that regulates the adhesive pressure in the manifold outlet and controls how much adhesive is re-circulated.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

A.2. MACHINE INSTALLATION

A.2.1. INTRODUCTION

This chapter explains how to install the machine correctly.

WARNING: The operations described in this chapter should be performed by qualified personnel, following safety instructions.

A.2.2 INSTALLATION REQUIREMENTS

In order for the machine to work properly, there needs to be a 0-24VDC signal to activate the solenoid valve and a compressed air circuit.

Avoid extreme room temperatures (below -10ºC and above +50ºC).

A.2.3. MECHANICAL INSTALLATION

WARNING: The installation operations indicated in this chapter must only be done by qualified personnel who understand the steps to take and are familiar with all safety measures.

This chapter outlines the procedures for installing the unit properly. Following these procedures will ensure safe operation and a long useful life of the unit. Carefully read Chapter 1: Safety before starting any installation process.

Before beginning, verify that the operator is duly protected and all safety measures are being followed.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

1 Cut off the air.

2 Disconnect the general switch.

3 Protect the general switch with the key to prevent accidental connections.

4 Verify there is no power.

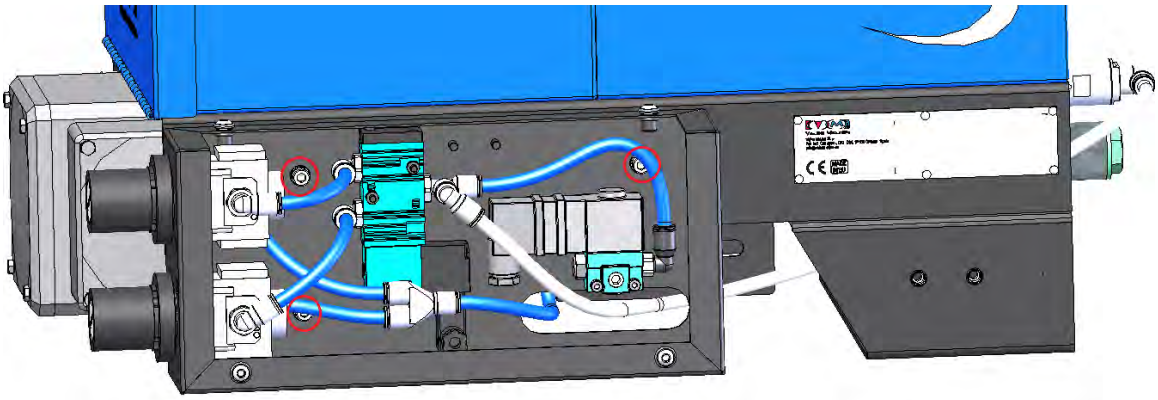
5 Verify there is no pressure in the adhesive; bleed if necessary.

6 Operate following the applicable safety instructions.

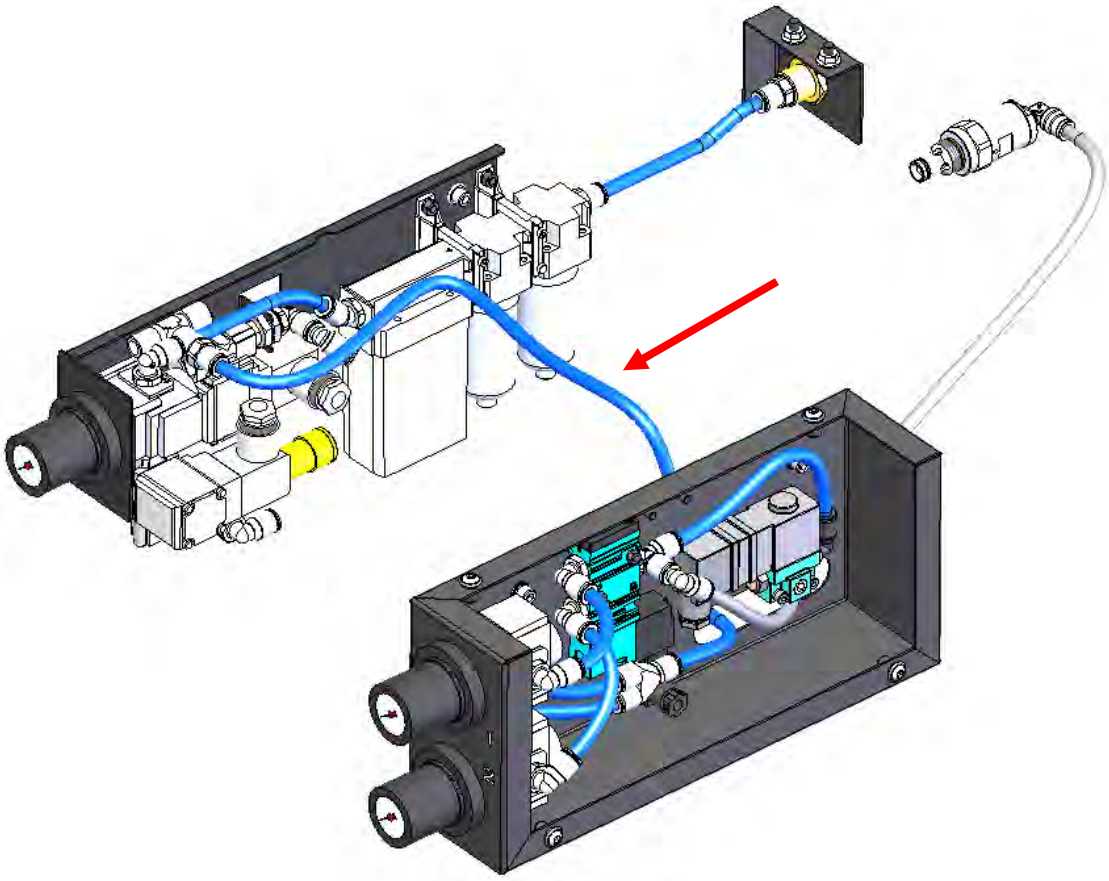
Make sure the regulation system air intake is positioned after the air depressurisation valve on the main pneumatic installation or make sure the electrovalve activation signal is connected to the safety line on the main machine.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

1. Screw the pneumatic system to the equipment baseframe using the two screws indicated in the picture below.

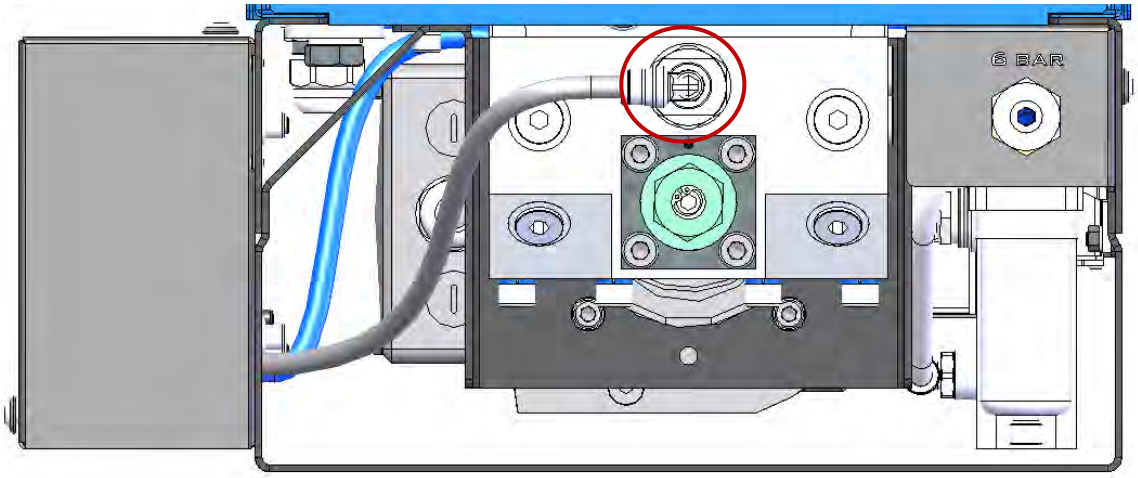


2. Connect with a polyurethane pipe blue Ø8x5.5 the pressure regulating system kit air drying.

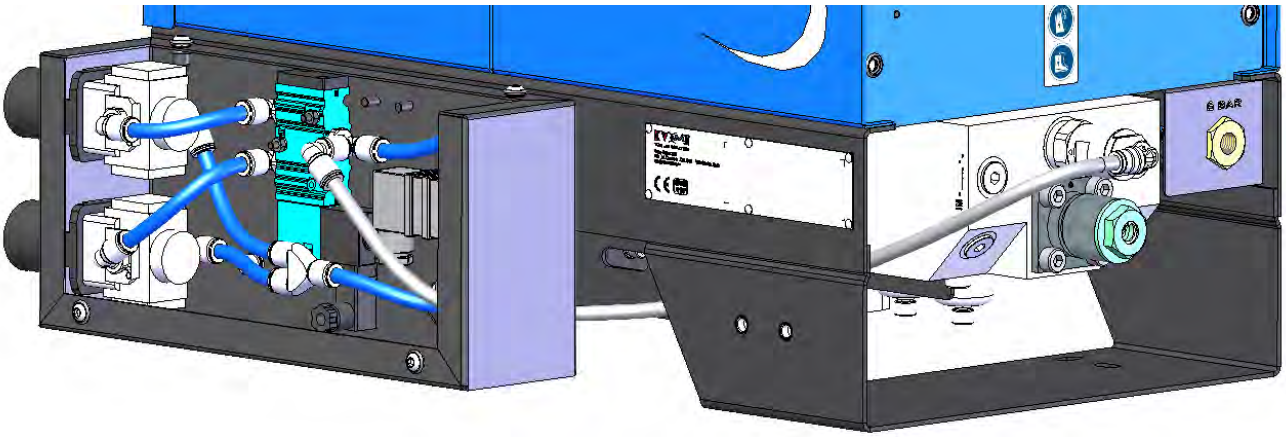


MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

3. Connecting one end of the control valve inlet pressure distributor.



The other end of the pressure control valve is connected to the output of the solenoid valve 1 with a teflon pipe Ø8x6.



MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

A.2.4. ELECTRICAL WIRING

The solenoid valve must be connected to a 0-24 VDC activation signal on the main machine.

A.2.5. PNEUMATIC CONNECTION

The regulator features a pneumatic connection for a Ø8 tube.
It is situated on the regulator with the pressure gauge.
At least 6 bars of pressure are necessary.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

A.3. MACHINE ADJUSTMENTS

A.3.1. INTRODUCTION

Before operating the machine, you must read the manual and understand it in order to ensure the proper, safe operation of the unit.

The operator must do a series of movements in order to start the application.

The adhesive temperature is controlled by the feeder (see the corresponding manual).

A.3.2. PRESSURE CONTROL

We have two regulators with manometer. Manometer 1 controls the pressure at repose. The manometer 2 controls the pressure that we apply adhesive. To adjust the pressure follow these steps:

1. Unlock the regulator. To do this pull the handle until the orange stripe appears.
2. Adjust the regulator to the desired pressure.
3. Lock the regulator. Push the handle, if not easily locked, turn slightly left and right and press. The orange stripe should disappear.

Note: To avoid excessive application at the beginning of it, it is recommended to set a lower repose pressure than the work pressure.

A.3.3. Unit turns ON

The unit is activated by a signal 0-24VDC.

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

ANNEX B
LOG SHEETS

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

DATE	INCIDENCE

MELTON, S.L.U. - POLIGONO INDUSTRIAL AGUSTINOS CALLE G-34,31160 ORCOYEN, NAVARRA
TEL: 00 34 948 321580 Fax: 00 34 948 326584 e-mail: melton@melton.es http://www.valcomelton.com

VALCO MELTON

Adhesive Dispensing & Quality Assurance Systems

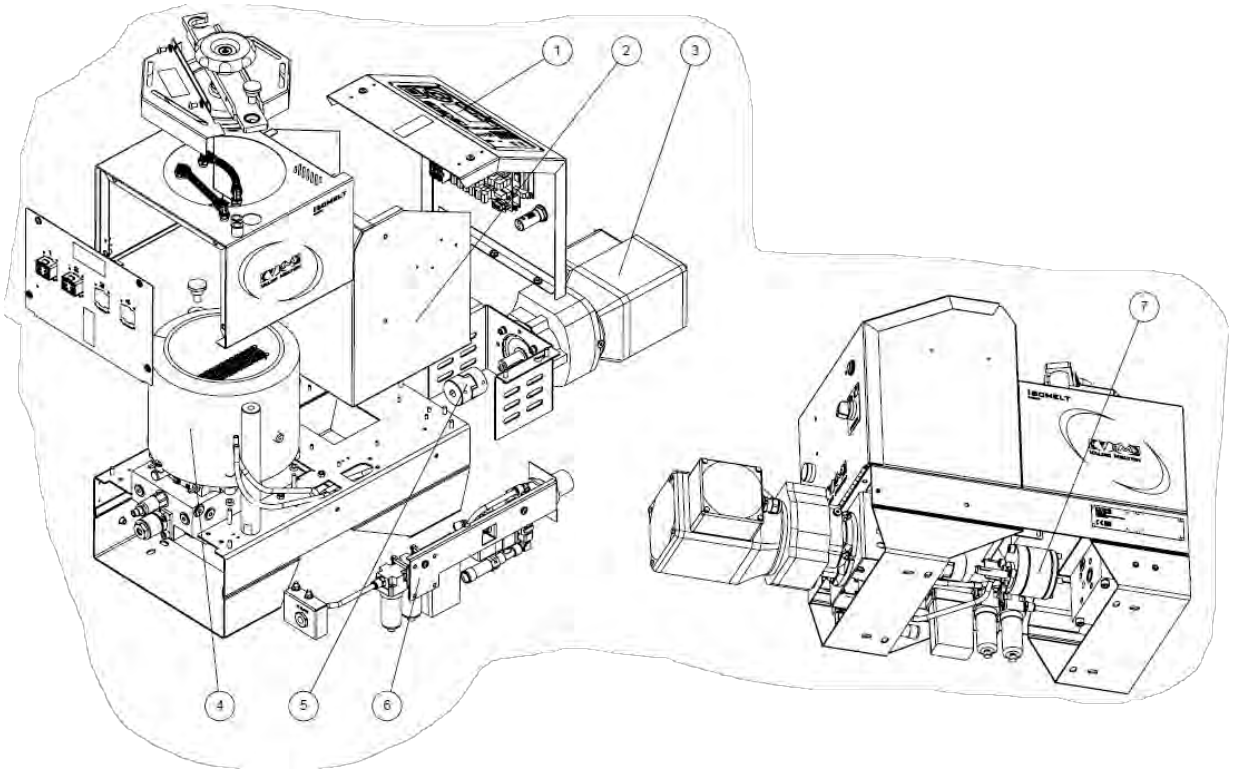
DESPIECE / PART LIST

ISOMELT MINI (NORD)

R092040202

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

1. EQUIPO ISOMELT MINI / ISOMELT MINI EQUIPMENT:

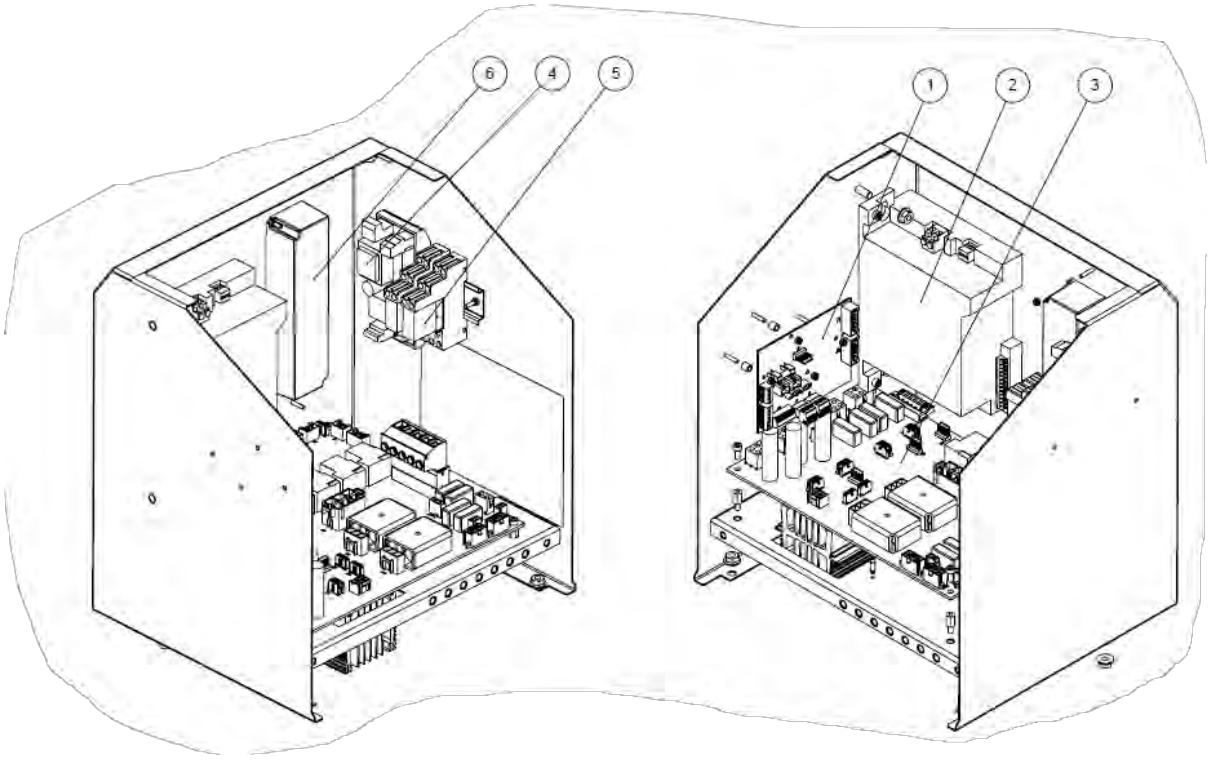


N.º	DESCRIPCIÓN	DESCRIPTION	REF.	QTY
1	TARJETA DE CONTROL	CONTROL BOARD	137XX029	1
2	CONJUNTO ARMARIO	ELECTRIC CABINET ASSEMBLY	PAG 3	1
3	MOTOREDUCTOR NORD	NORD GEARMOTOR	904XX294	1
4	CONJUNTO DEPOSITO	TANK ASSEMBLY	PAG 4	1
5	ACOPLAMIENTO Ø20-Ø12	Ø20-Ø12 COUPLING	914XX644	1
6	KIT DE SOPLADO DE AIRE	AIR BLOWER KIT	PAG 6	1
7	BOMBA DE ENGRANAJES	GEAR PUMP	DEPENDING MODEL	1

N.º	1 CC/REV	2,5 CC/REV	4 CC/REV	8 CC/REV
7	912XX977	918XX522	900XX873	918XX537

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

2. CONJUNTO ARMARIO / ELECTRIC CABINET ASSEMBLY:

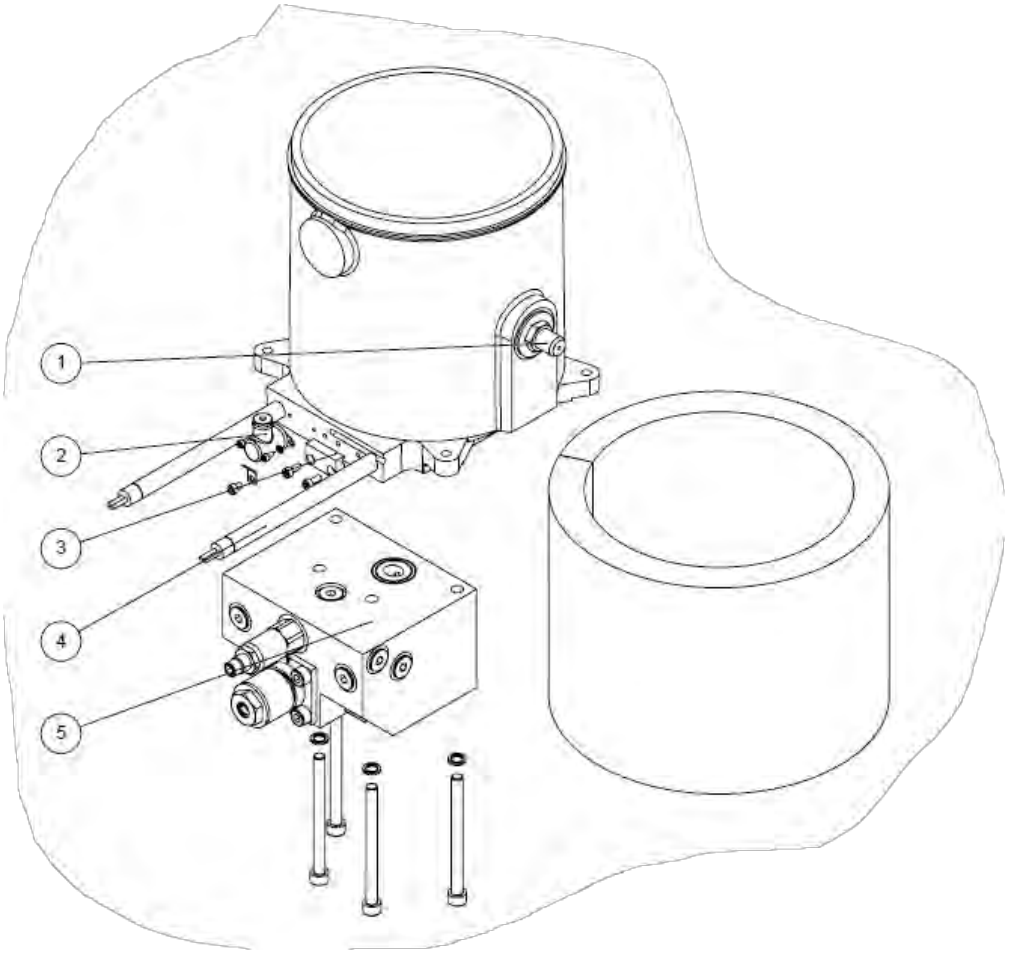


N.º	DESCRIPCIÓN	DESCRIPTION	REF.	QTY
1	PCCB, ASSY, DUAL VFD +/-15	PCCB, ASSY, DUAL VFD +/-15	900XX030	1
2	VARIADOR	FRECUENCY INVERTER	904XX371	1
3	PCB ASSY, 12 ZONE	PCB ASSY, 12 ZONE	DEPENDING MODEL	1
4	TARJETA SONDA DE NIVEL NV10	NV10 LEVEL SENSOR BOARD	913XX876	1
5	RELE 24VDC	24VDC RELAY	913XX025	2
6	FUNETE DE ALIMENTACION	POWER SUPPLY	912XX549	1

N.º	NI 120	PT100
3	151XX680	151XX679

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

3. CONJUNTO DEPOSITO / TANK ASSEMBLY:

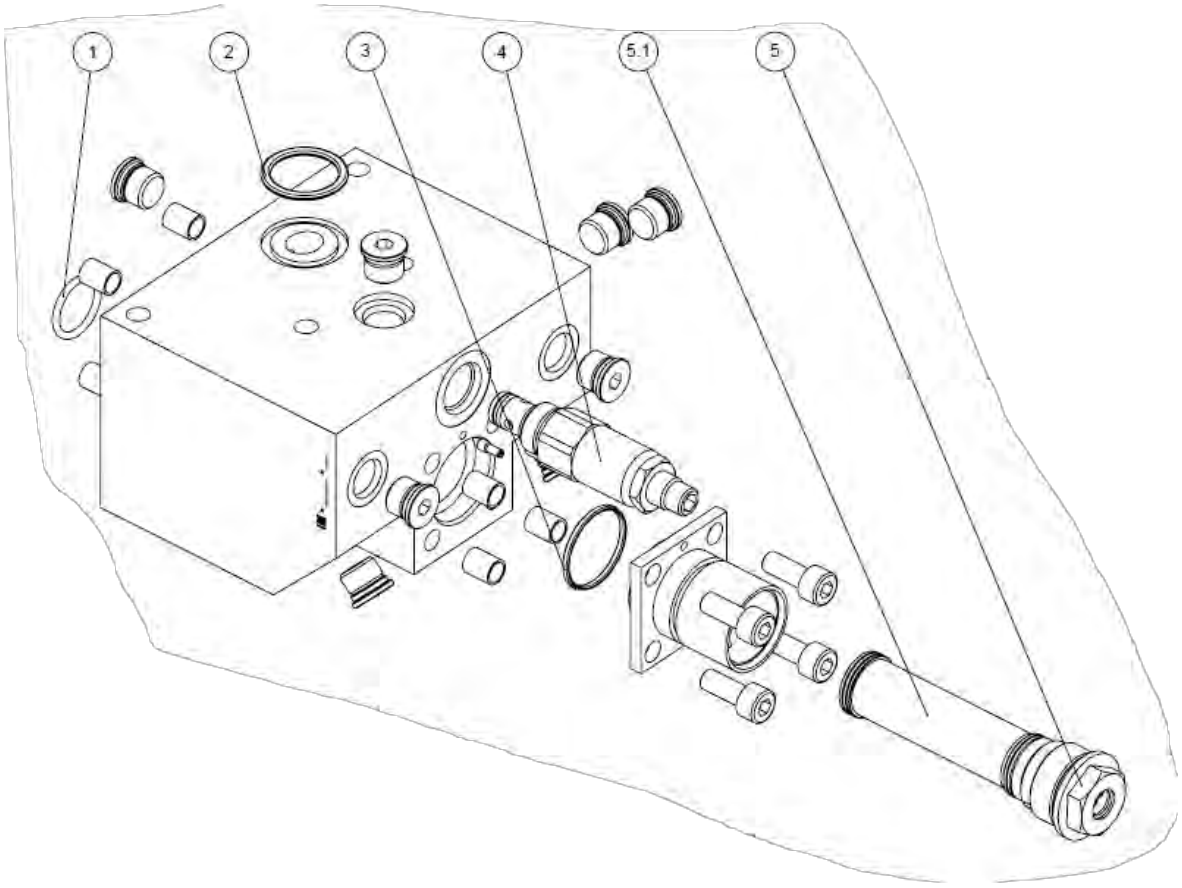


N.º	DESCRIPCIÓN	DESCRIPTION	REF.	QTY
1	SONDA NIVEL ISOMELT	ISOMELT LEVEL SENSOR	913XX513	1
2	MAZO TERMOSTATO	THERMOSTAT CORDSET	912XX602	1
3	SONDA TEMPERATURA	TEMPERATURE PROBE	DEPENDING MODEL	1
4	MAZO RESISTENCIAS DEPOSITO	HEATER TANK CORDSET	911XX592	1
5	CONJUNTO DISTRIBUIDOR	MANIFOLD ASSEMBLY	PAG 5	1

N.º	NI 120	PT100
3	915XX134	917XX147

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

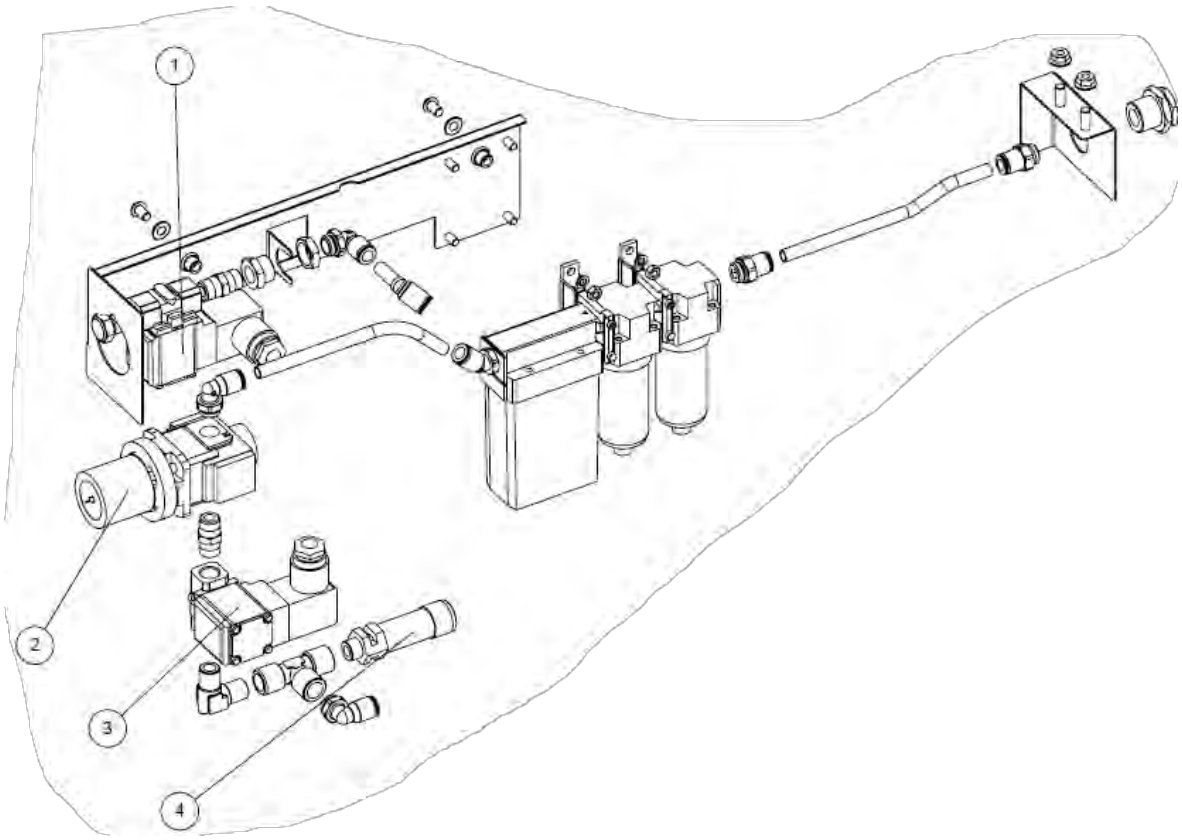
4. CONJUNTO DISTRIBUIDOR / MANIFOLD ASSEMBLY:



N.º	DESCRIPCIÓN	DESCRIPTION	REF.	QTY
1	JUNTA TORICA VITON 20.29X2.62	20.29X2.62 VITON O-RING	745XX150	1
2	JUNTA TORICA VITON 26.64X2.62	26.64X2.62 VITON O-RING	918XX921	1
3	JUNTA TORICA VITON 30X2	30X2 VITON O-RING	916XX266	1
4	REGULADOR DE PRESION 80BAR	80 BAR PRESSURE REGULATOR	912XX169	1
5	FILTRO EC/K 0,5	EC/K 0,5 FILTER	913XX614	1
5.1	CARTUCHO FILTRO 0,5 SERIE EC	EC SERIES FILTER CARTRIDGE 0,5	913XX615	1

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

5. KIT SOPLADO DE AIRE / AIR BLOWER KIT:



N.º	DESCRIPCIÓN	DESCRIPTION	REF.	QTY
1	ELECTROVALVULA NC 1/4 VDC ROSCA G	SOLENOID VALVE, NC 1/4" VDC THREAD G	911XX546	1
2	REGULADOR ISOMELT MINI	ISOMELT MINI REGULATOR	911XX336	1
3	ELECTROVALVULA NC 1/4 VDC ROSCA G	SOLENOID VALVE, NC 1/4" VDC THREAD G	911XX546	1
4	VALVULA SEGURIDAD PREVOST 1/4" 0.5 BAR	SAFETY VALVEPREVOST 1/4" 0.5 BAR	913XX494	1

Valco Melton S.L.U. Pol. Ind. Agustinos C/G 34 31160, Orkoien, Spain
Tel: +34 948 321 580 | Fax: +34 948 326 584 | email: info@valcomelton.es | www.valcomelton.com

Adhesive Dispensing & Quality Assurance Systems

Valco Melton European Headquarters: Orkoien, Navarra, Spain | Tel: +34 948 321 580 | Fax: +34 948 326 584
Email: info@valcomelton.es | www.valcomelton.com

S092450205
ISOMELT MINI 1B-4S NI120 NORD

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

COVER PAGE

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 01

1

Drawing	Location	Revision	Date	Created by	Description	Function	Folder mark	Folder designation
01	P1	0	03/08/2023	imateo	Cover page	F1		
02	P1	0	03/08/2023	imateo	Drawing list	F1		
03	P1	0	03/08/2023	imateo	Wiring line diagram	F1		
04	P1	0	03/08/2023	imateo	SERVICE WIRES	F1		
05	P1	0	03/08/2023	imateo	POWER SUPPLY	F1		
06	P1	0	03/08/2023	imateo	TANK CONNECTION	F1		
07	P1	0	03/08/2023	imateo	CHANNELS 1 AND 2	F1		
08	P1	0	03/08/2023	imateo	CHANNELS 3 AND 4	F1		
09	P1	0	03/08/2023	imateo	VFD BOARD	F1		
10	P1	0	03/08/2023	imateo	MOTOR	F1		
11	P1	0	03/08/2023	imateo	AIR SYSTEM	F1		
12	P1	0	03/08/2023	imateo	CONTROL BOARD	F1		
13	P1	0	03/08/2023	imateo	COMMUNICATION	F1		
14	P1	0	03/08/2023	imateo	PCM-6	F1		
15	P1	0	03/08/2023	imateo	Electrical box	F1		
16	P2	0	03/08/2023	imateo	Front panel	F1		
17	P5	0	03/08/2023	imateo	PNEUMATIC SCHEMA	F1		
18	P1	0	03/08/2023	imateo	CONNECTION CABLE WITH MAIN MACHINE	F1		
19	P1	0	03/08/2023	imateo	Bill of materials	F1		
20	P1	0	03/08/2023	imateo	Bill of materials	F1		
21	P1	0	03/08/2023	imateo	Bill of materials	F1		
22	P1	0	03/08/2023	imateo	Bill of materials	F1		
23	P1	0	03/08/2023	imateo	List of wires	F1		
24	P1	0	03/08/2023	imateo	List of wires	F1		
25	P1	0	03/08/2023	imateo	List of wires	F1		
26	P1	0	03/08/2023	imateo	List of wires	F1		
27	P1	0	03/08/2023	imateo	List of the cables	F1		
28	P1	0	03/08/2023	imateo	List of cable strands	F1		
29	P1	0	03/08/2023	imateo	List of cable strands	F1		
30	P1	0	03/08/2023	imateo	List of cable strands	F1		
31	P1	0	03/08/2023	imateo	List of cable strands	F1		

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

DRAWING LIST

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 02

1	2	3	4	5	6	7	8	9	10

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

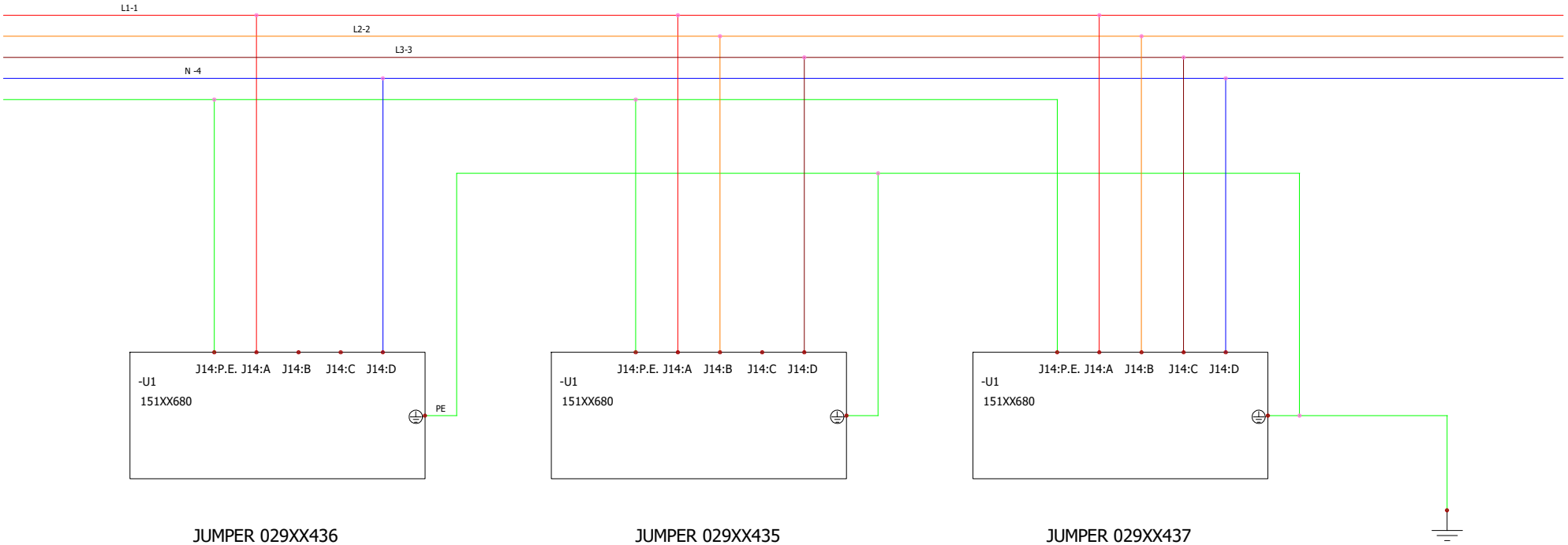
WIRING LINE DIAGRAM

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 03



JUMPER 029XX436

U1-J15

OPTION A
230V I+N+T

JUMPER 029XX435

J15-U1

OPTION B
230V III+T

JUMPER 029XX437

J15-U1

OPTION C
400V III+N+T

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

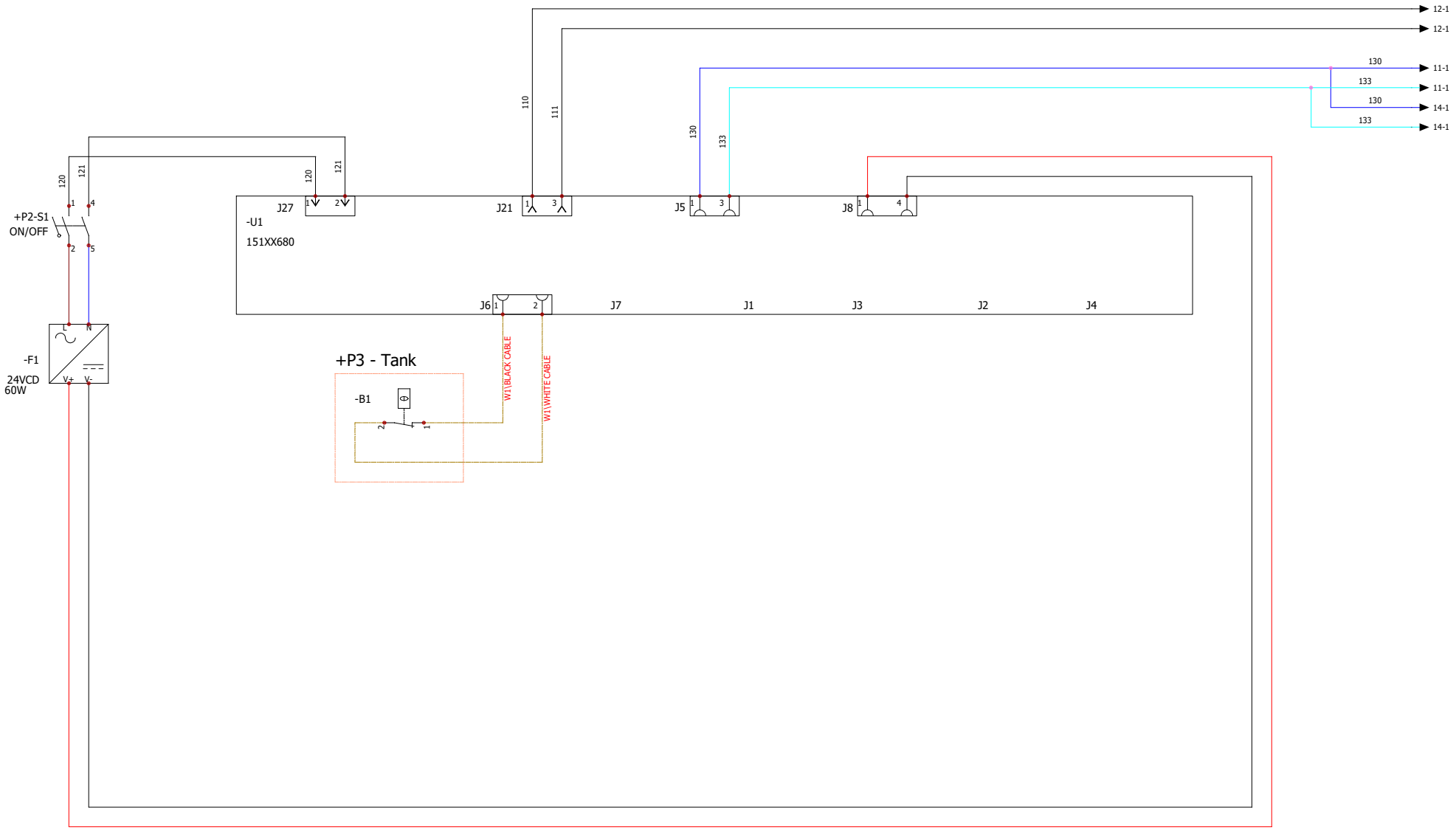
SERVICE WIRES CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 04



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

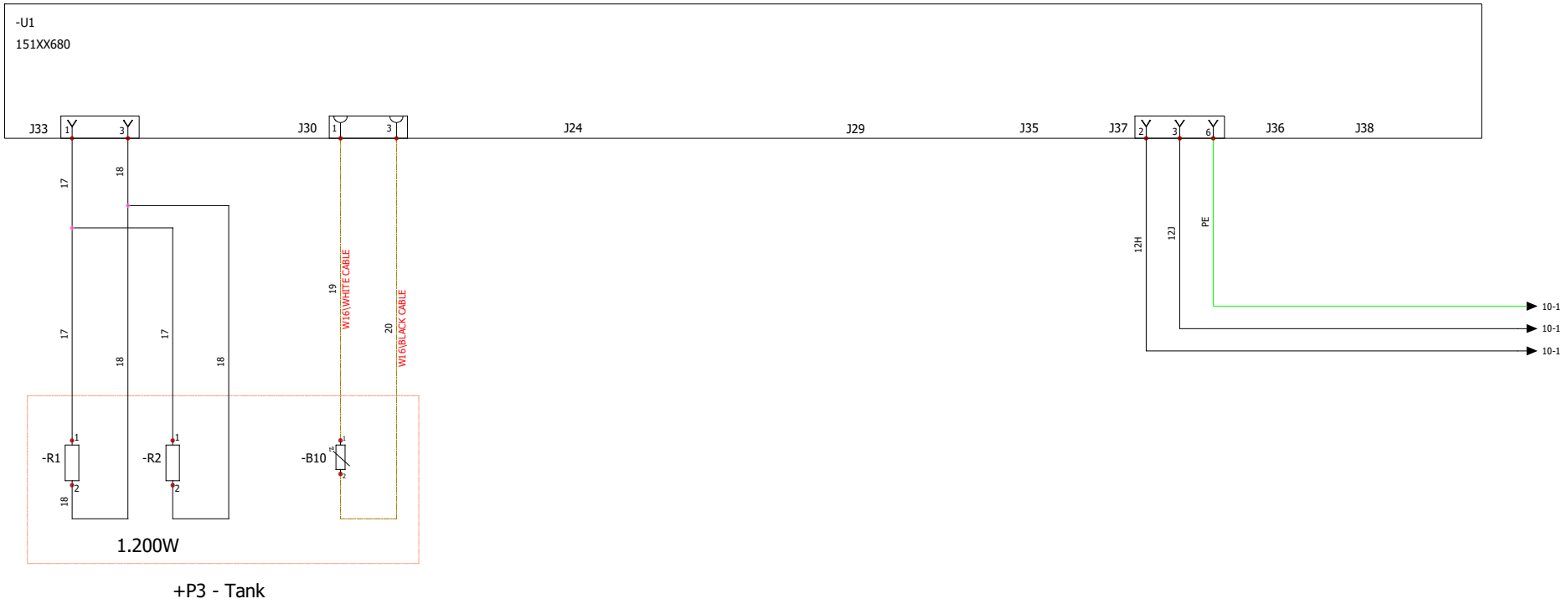
POWER SUPPLY AND THERMOSTAT

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 05



+P3 - Tank

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

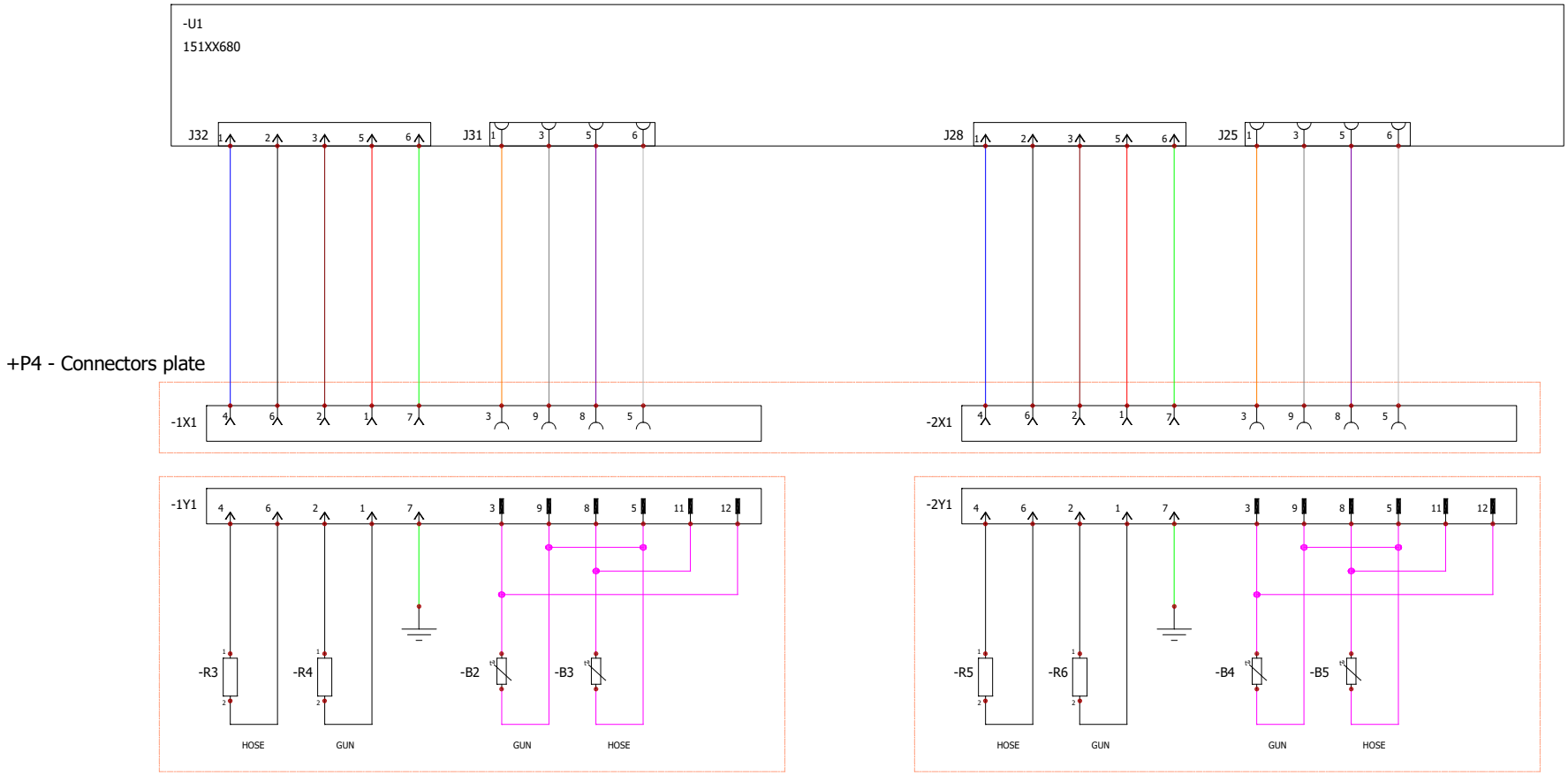
TANK HEATERS AND RTD CONNECTION INVERTER SUPPLY

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 06



+P5 - Output 1

P.MAX CHANNEL 1 1.800W

+P6 - Output 2

P.MAX CHANNEL 2 1.800W

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

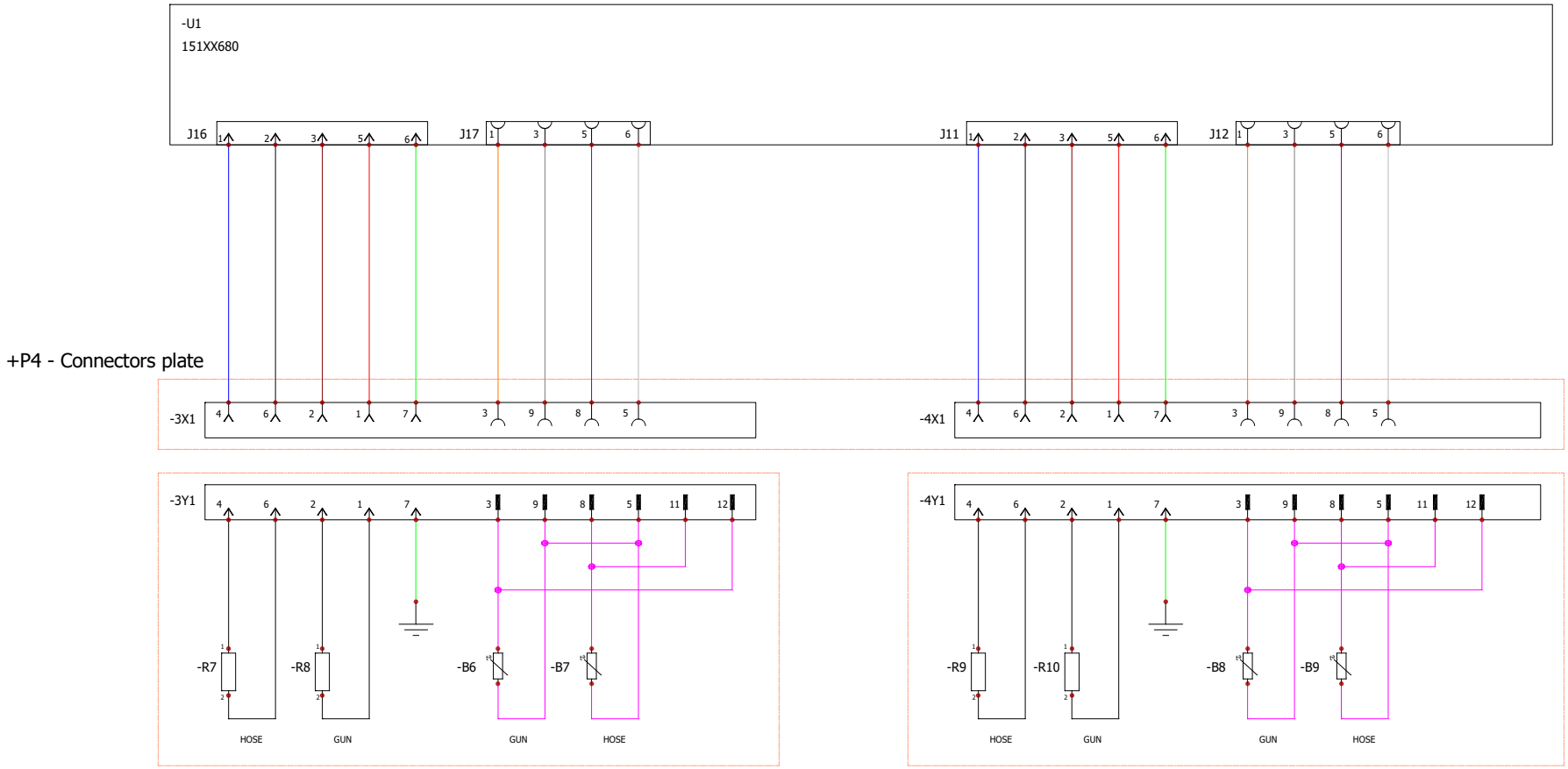
CHANNELS 1 AND 2
HOSE-GUN NI120 CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 07



+P7 - Output 3

P.MAX CHANNEL 3 1.400W

+P8 - Output 4

P.MAX CHANNEL 4 1.400W

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

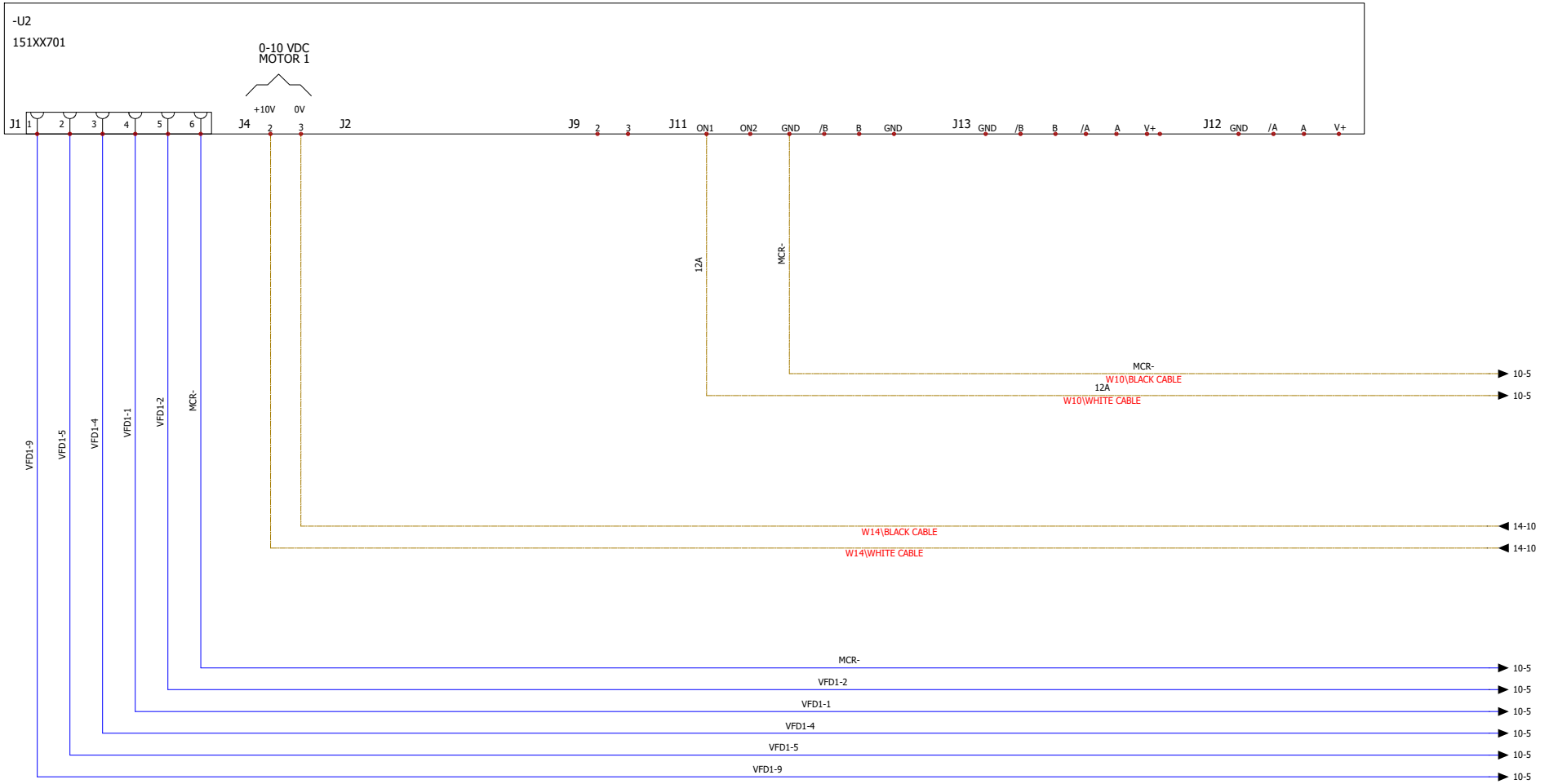
CHANNELS 3 AND 4
HOSE-GUN NI120 CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 08



1	2	3	4	5	6	7	8	9	10

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

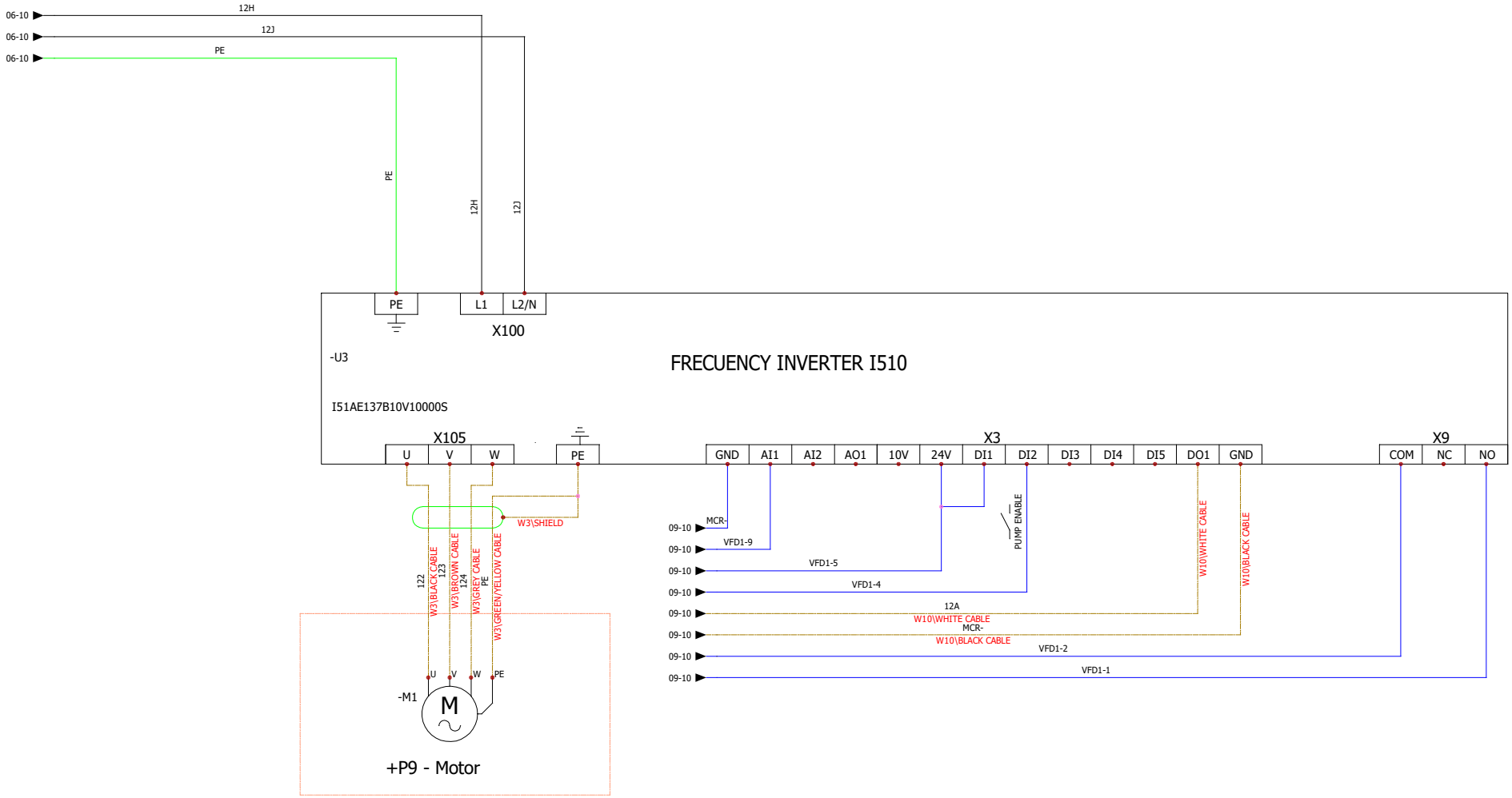
VFD BOARD CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 09



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

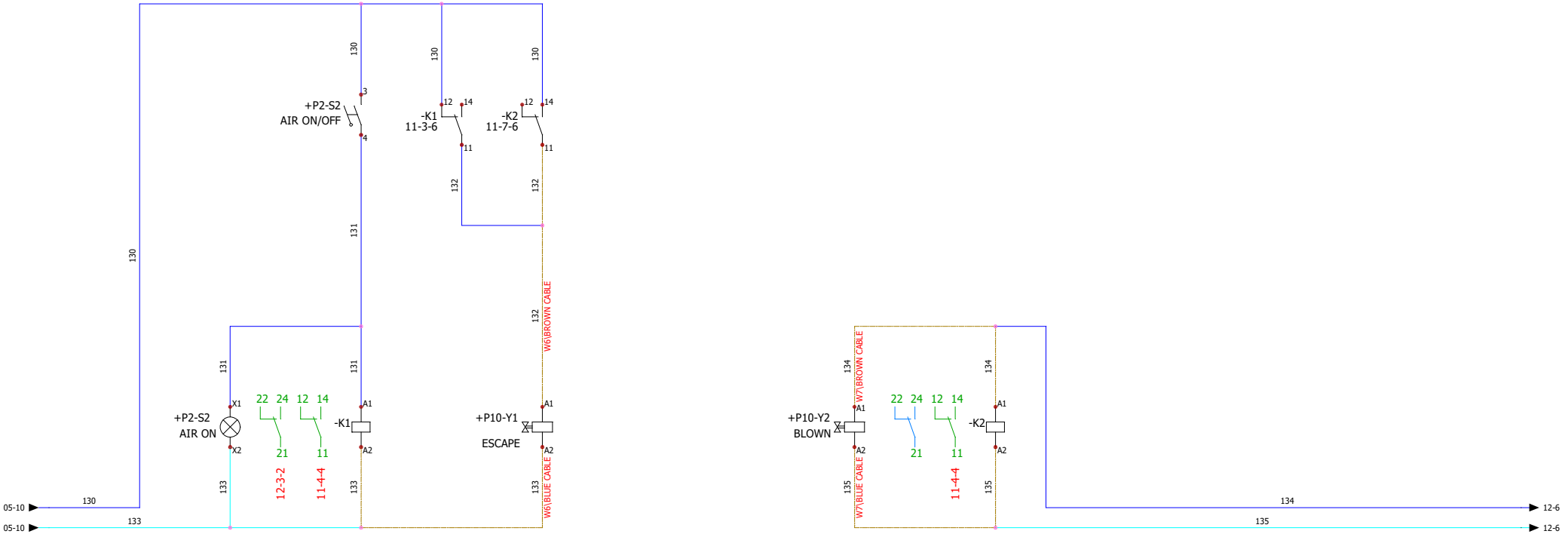
MOTOR CONNECTION
INVERTER SIGNALS

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 10



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

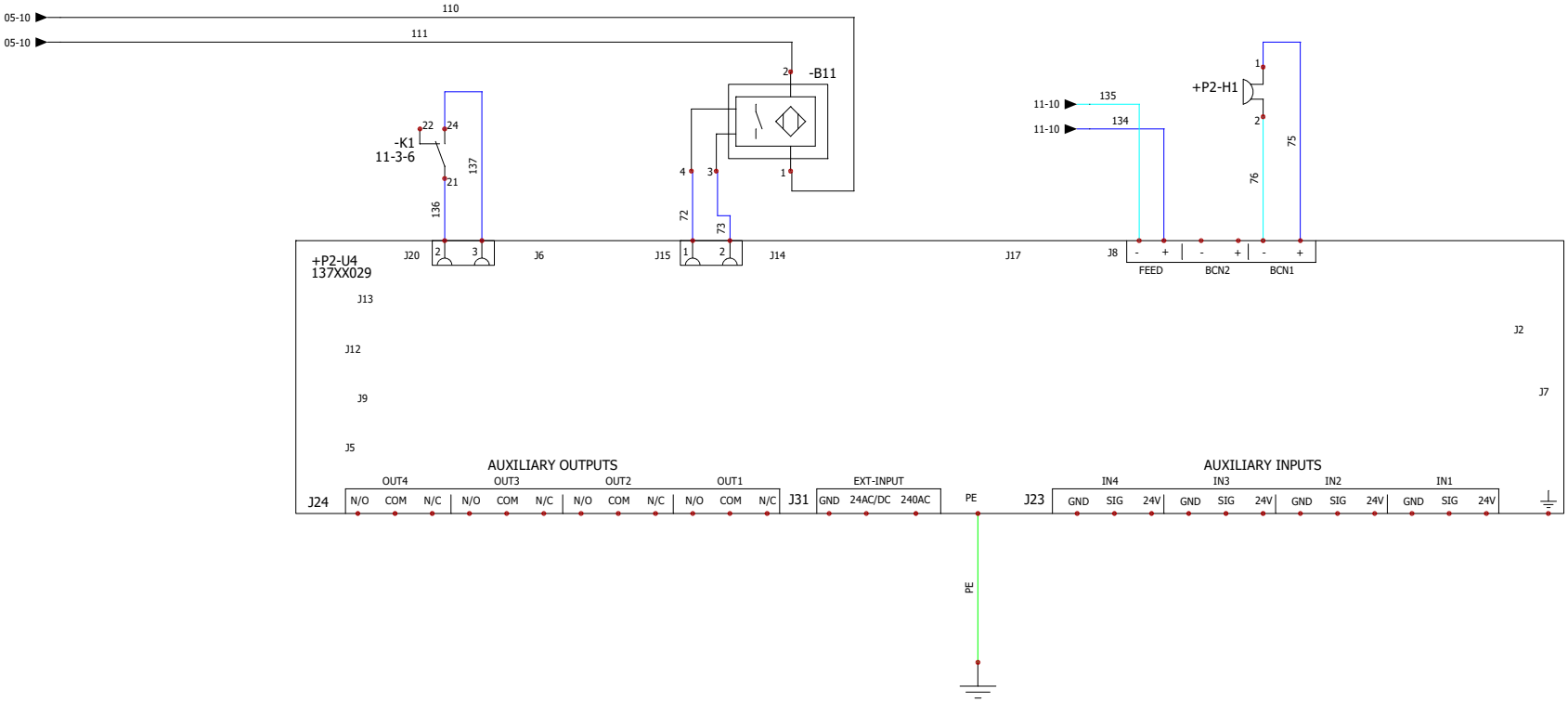
AIR SYSTEM CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 11



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

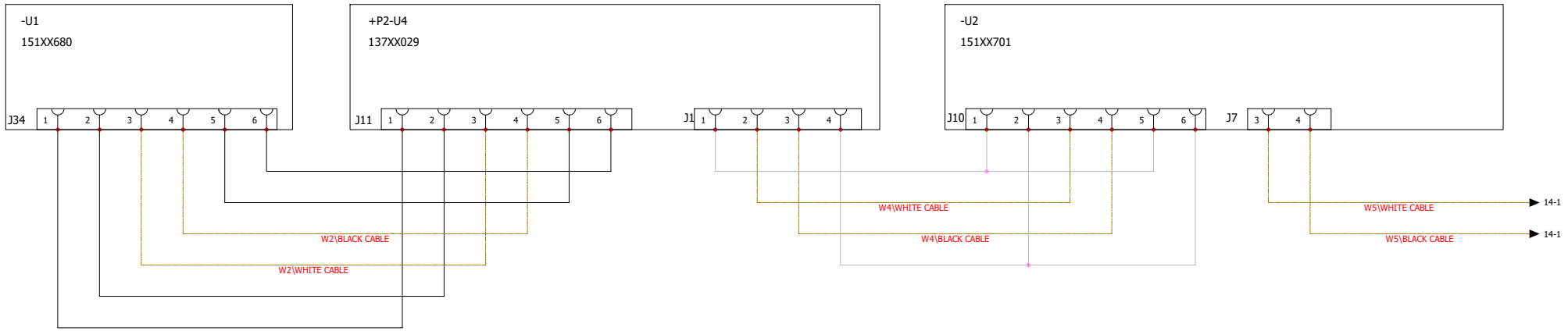
CONTROL BOARD CONNECTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 12



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

CONTROL, POWER, VFD AND MCP-6 BOARDS COMMUNICATION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

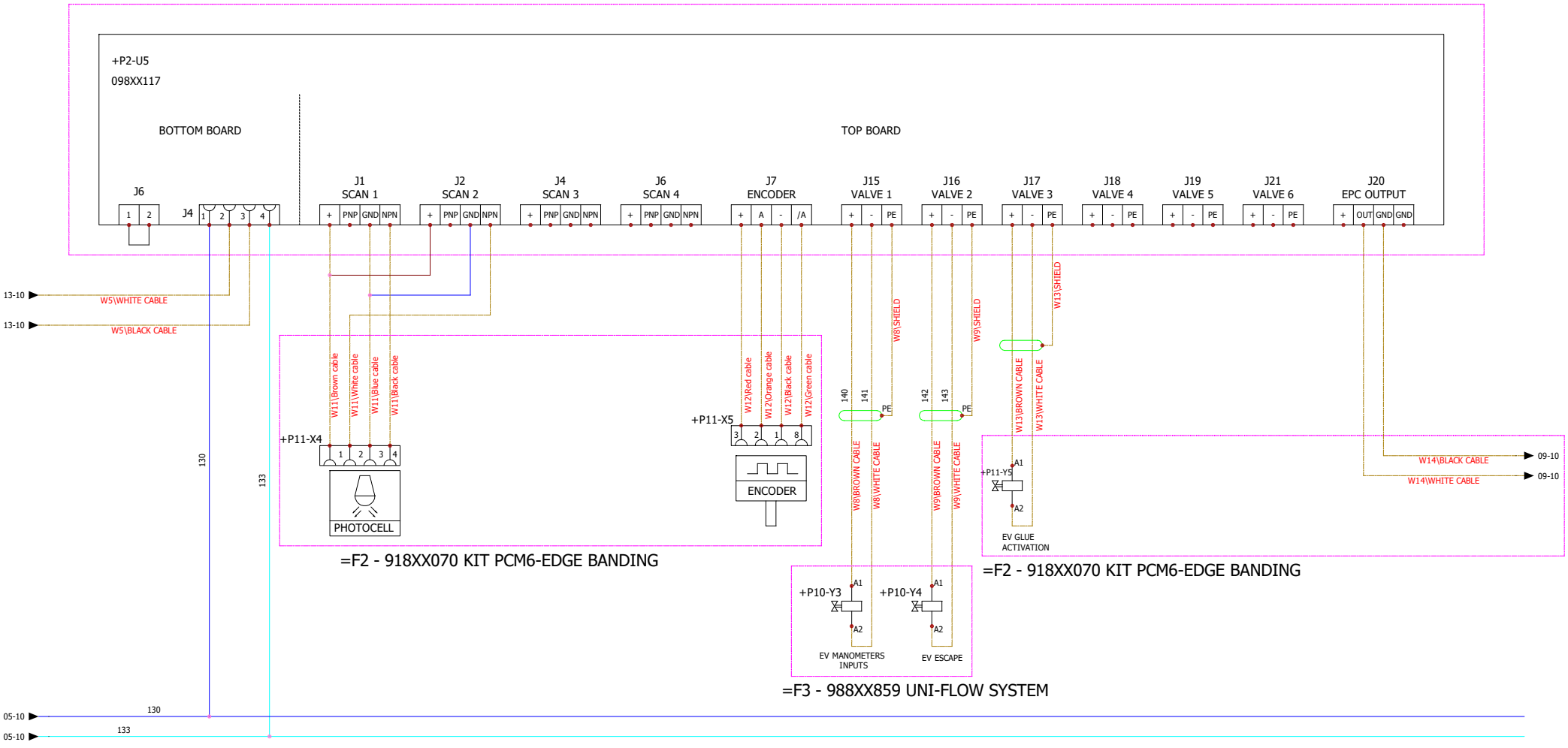
REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 13

1	2	3	4	5	6	7	8	9	10

=F2 - 918XX070 KIT PCM6-EDGE BANDING



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

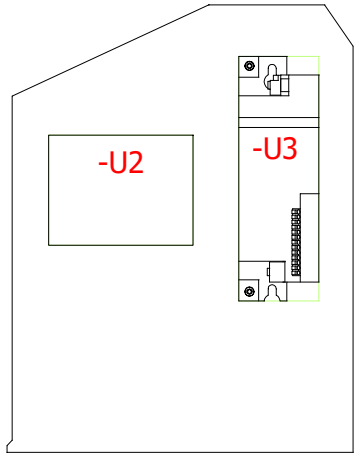
PCM-6 VALVE DRIVER CONNECTION

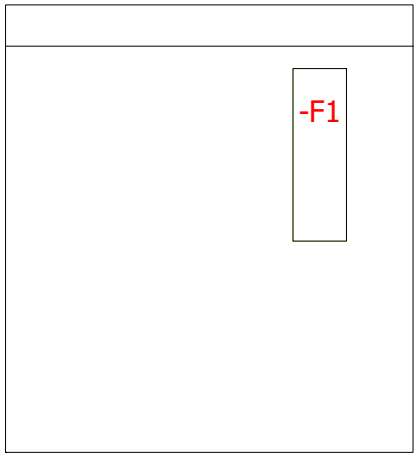
PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

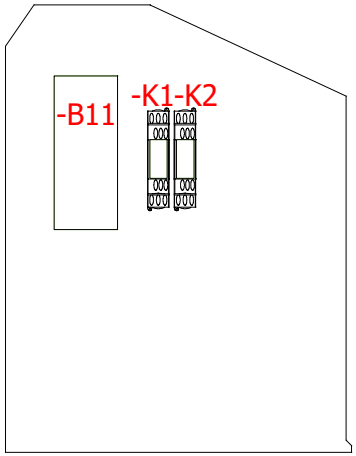
REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

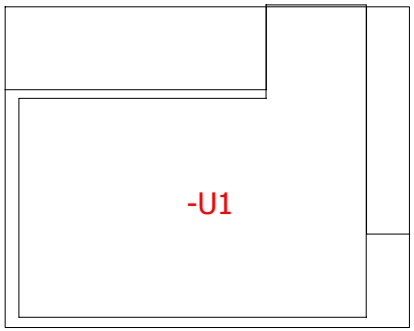
REVISION 0

SCHEME 14









Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

ELECTRICAL BOX CONSTRUCTION

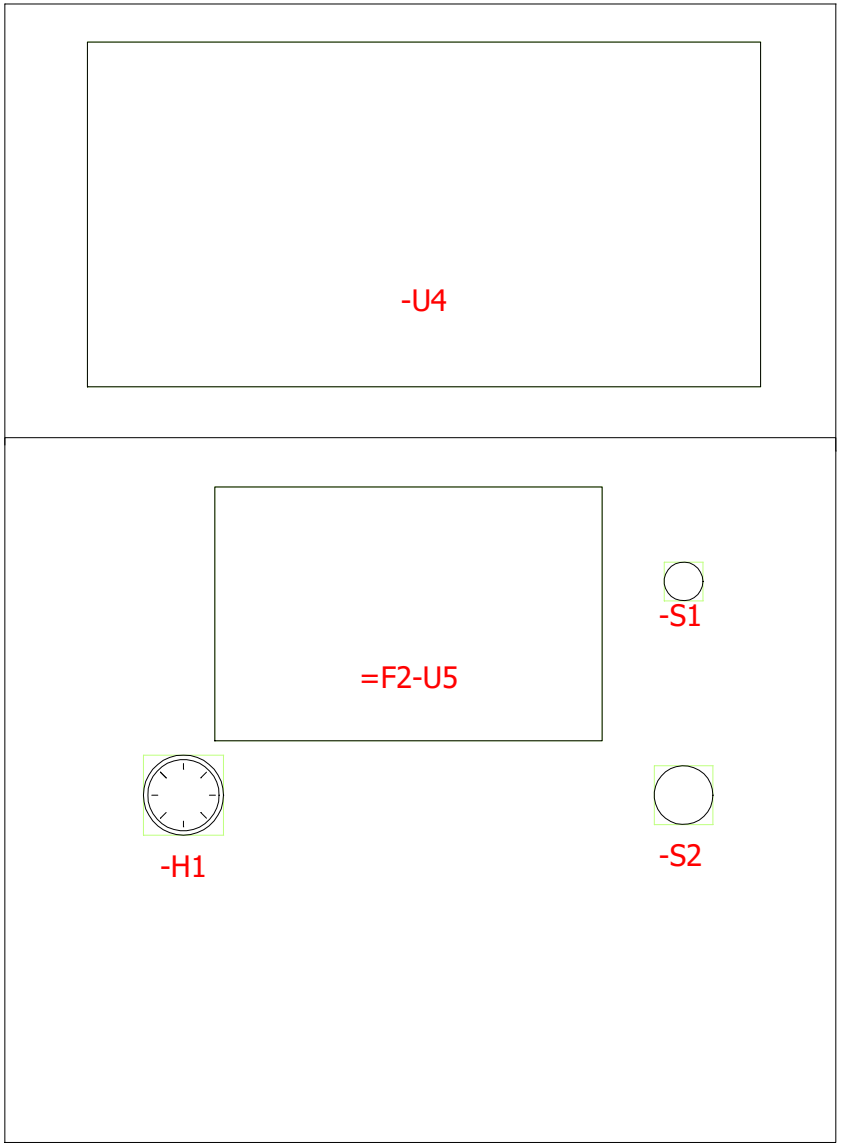
PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

SCALE 1 / 4

REVISION 0

DRAWING 15



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

FRONT PANEL CONSTRUCTION

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

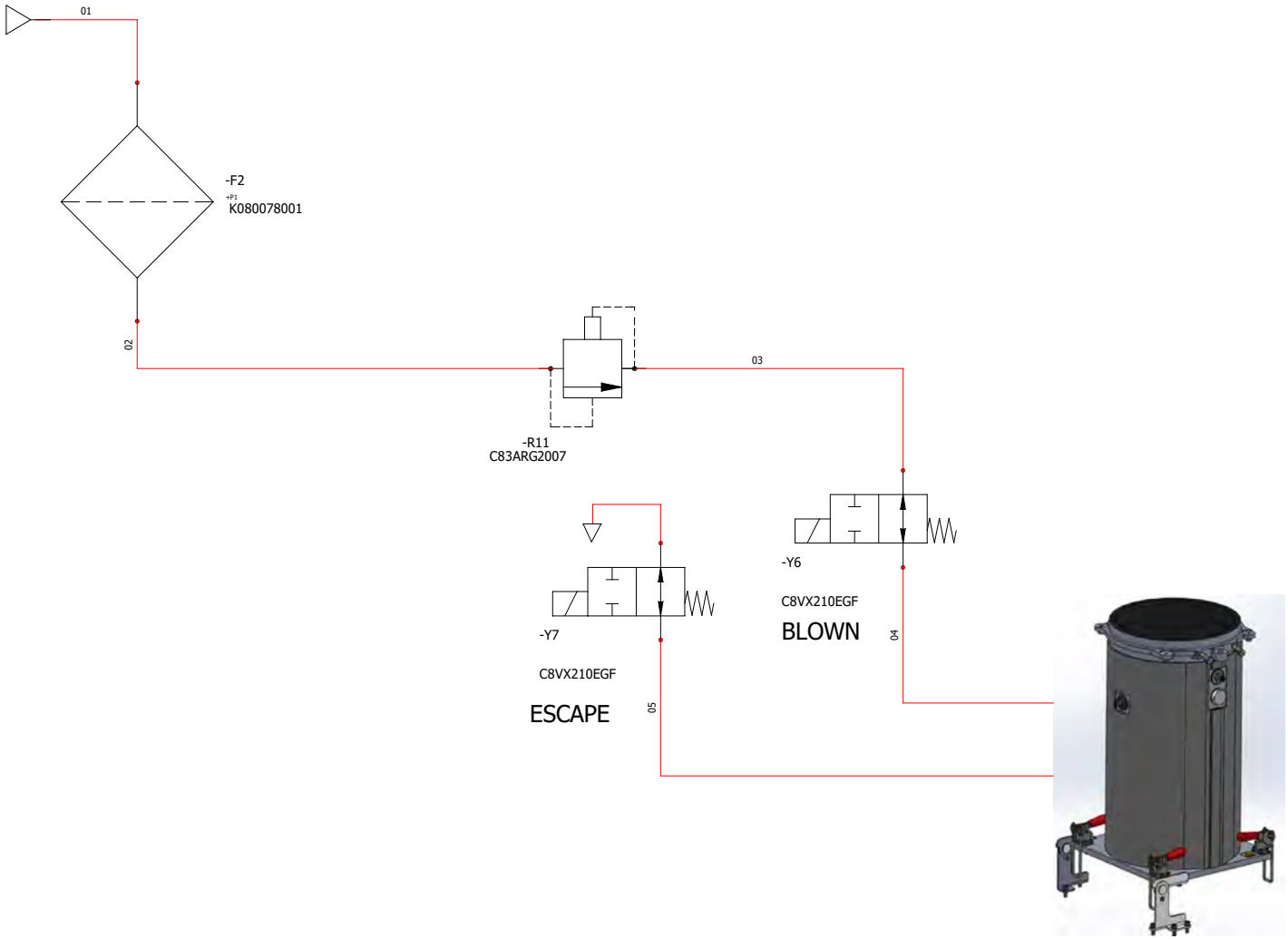
REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

SCALE 1 / 2

REVISION 0

DRAWING 16

1	2	3	4	5	6	7	8	9	10



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

PNEUMATIC SCHEMA

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

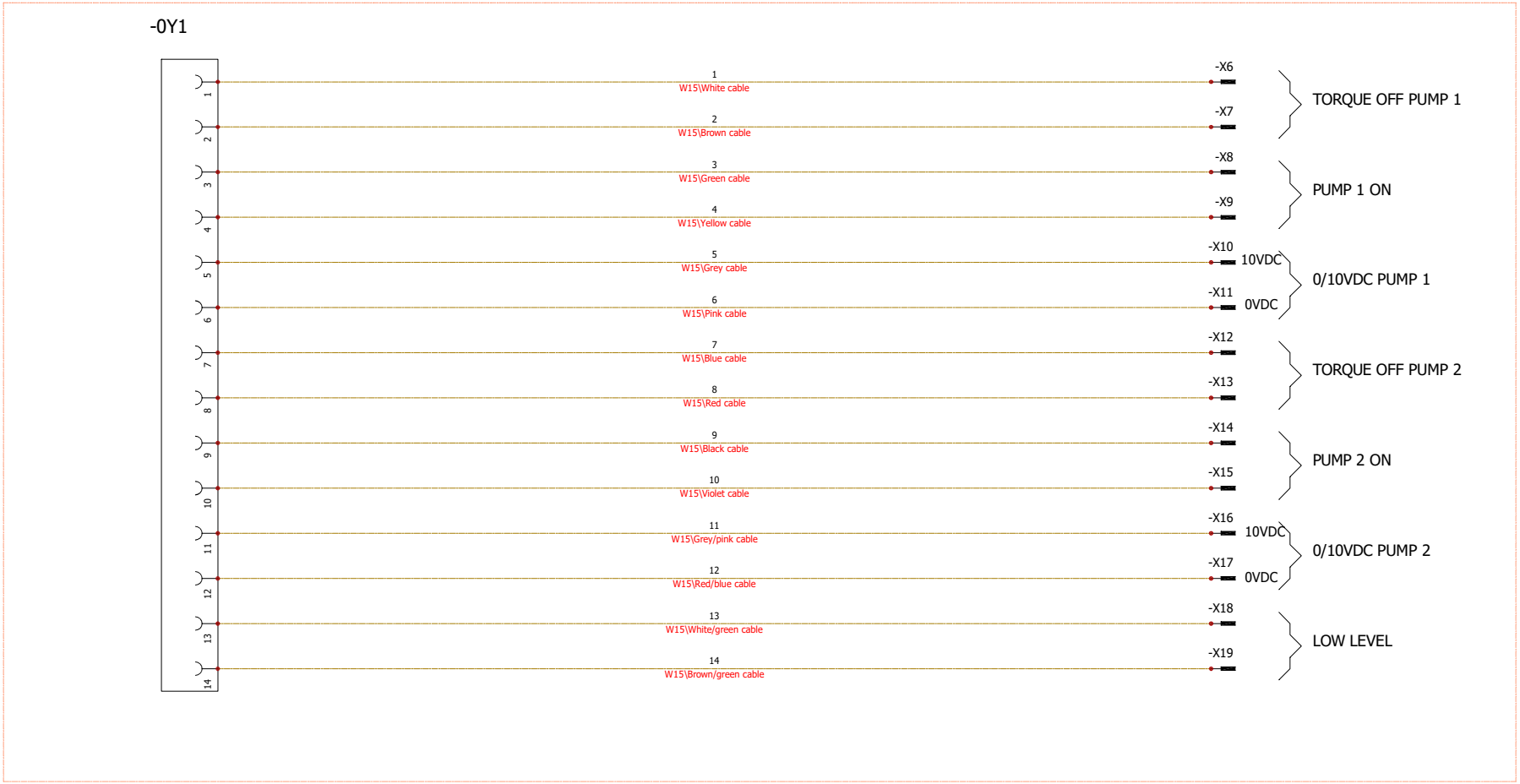
REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 17

1	2	3	4	5	6	7	8	9	10

+P12 - External connection



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

CONNECTION CABLE WITH MAIN MACHINE

PROJECT: S092450205 ISOMELT MINI 1B-4S NI120 NORD

REV.	DATE	NAME	CHANGES
0	03/08/2023	imateo	

REVISION 0

SCHEME 18

S760040200
KIT PCM6 EDGE BANDING

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

COVER PAGE

PROJECT: S760040200 KIT PCM6 EDGE BANDING

REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	19/02/2015	fcasedas	

REVISION 2

SCHEME 01

1-Document book

Drawing	Function	Location	Revision	Date	Created by	Description
01	F1	P1	1	29/05/2015	mayestaran	Cover page
02	F1	P1	1	29/05/2015	mayestaran	Drawing list
03	F1	P1	1	29/05/2015	mayestaran	Wiring line diagram
04	F1	P1	1	29/05/2015	mayestaran	PCM-6
05	F1	P1	0	29/05/2015	mayestaran	POWER BOARD
06	F1	P1	0	29/05/2015	mayestaran	VFD BOARD
07	F1	P1	0	01/06/2015	mayestaran	Bill of materials
08	F1	P1	0	01/06/2015	mayestaran	List of wires
09	F1	P1	0	01/06/2015	mayestaran	List of the cables
10	F1	P1	0	01/06/2015	mayestaran	List of cable strands
11	F1	P1	0	01/06/2015	mayestaran	List of cable strands

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

DRAWING LIST

PROJECT: S760040200 KIT PCM6 EDGE BANDING

REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	19/02/2015	fcasedas	

REVISION 2

SCHEME 02

1	2	3	4	5	6	7	8	9	10

Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

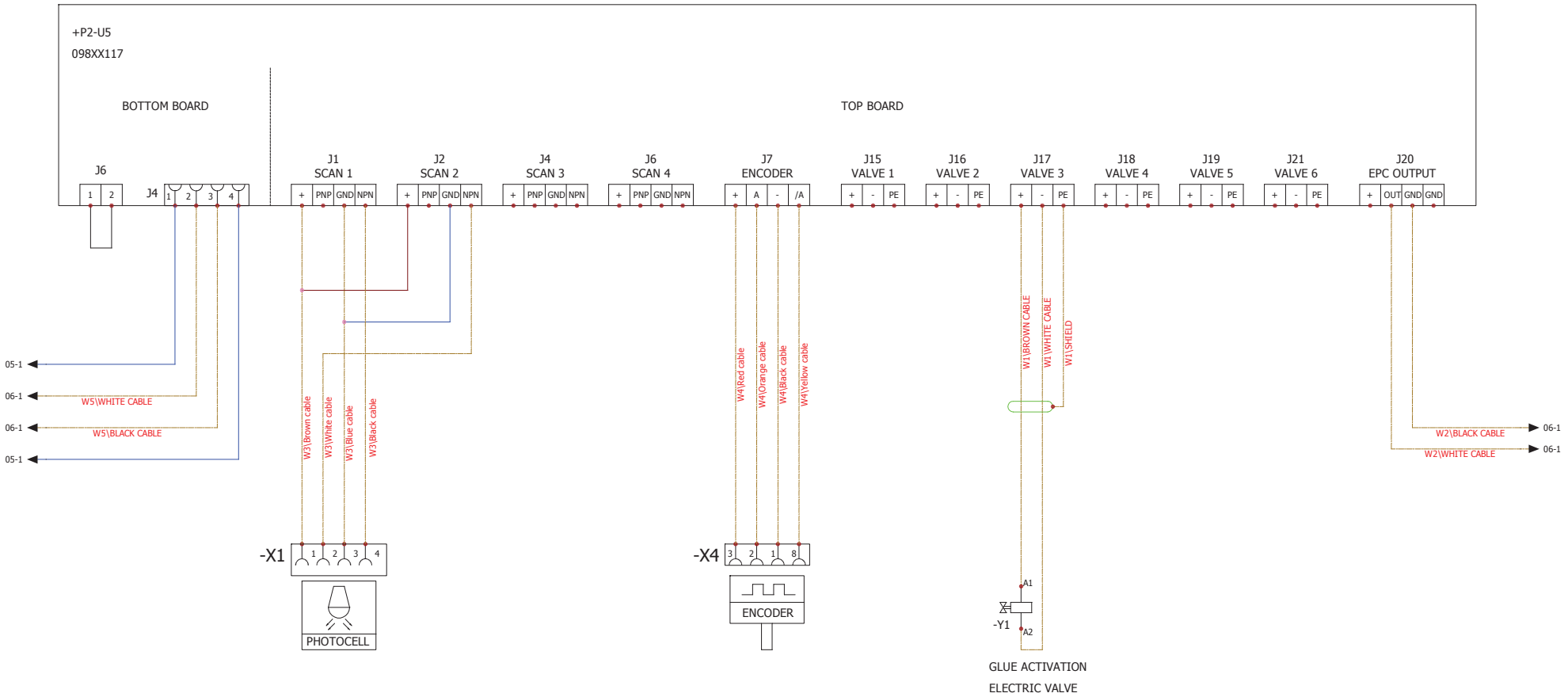
WIRING LINE DIAGRAM

PROJECT: S760040200 KIT PCM6 EDGE BANDING

REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	19/02/2015	fcasedas	

REVISION 2

SCHEME 03



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

PCM-6 VALVE DRIVER CONNECTION

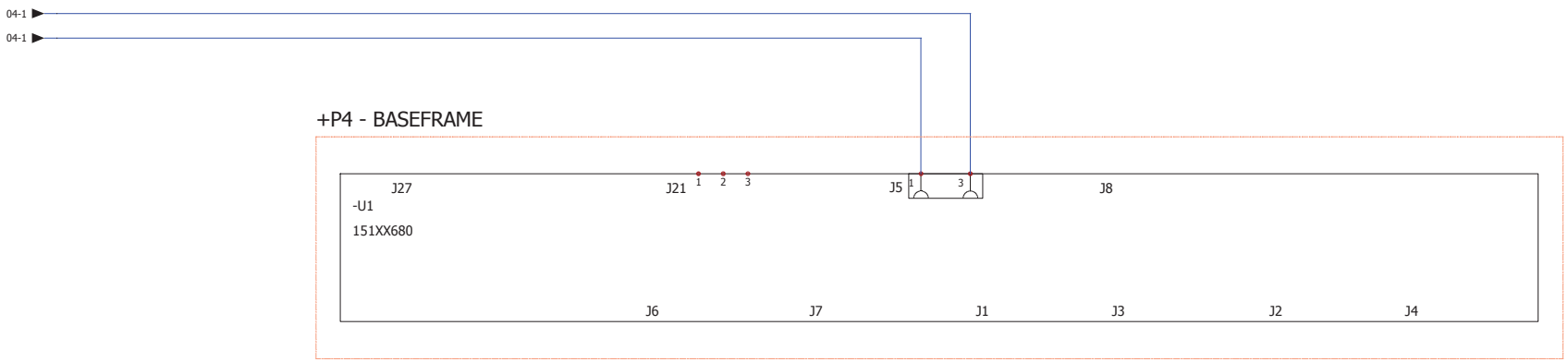
PROJECT: S760040200 KIT PCM6 EDGE BANDING

REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	19/02/2015	fcasedas	

REVISION 2

SCHEME 04

1	2	3	4	5	6	7	8	9	10



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

POWER BOARD CONNECTION

PROJECT: S760040200 KIT PCM6 EDGE BANDING

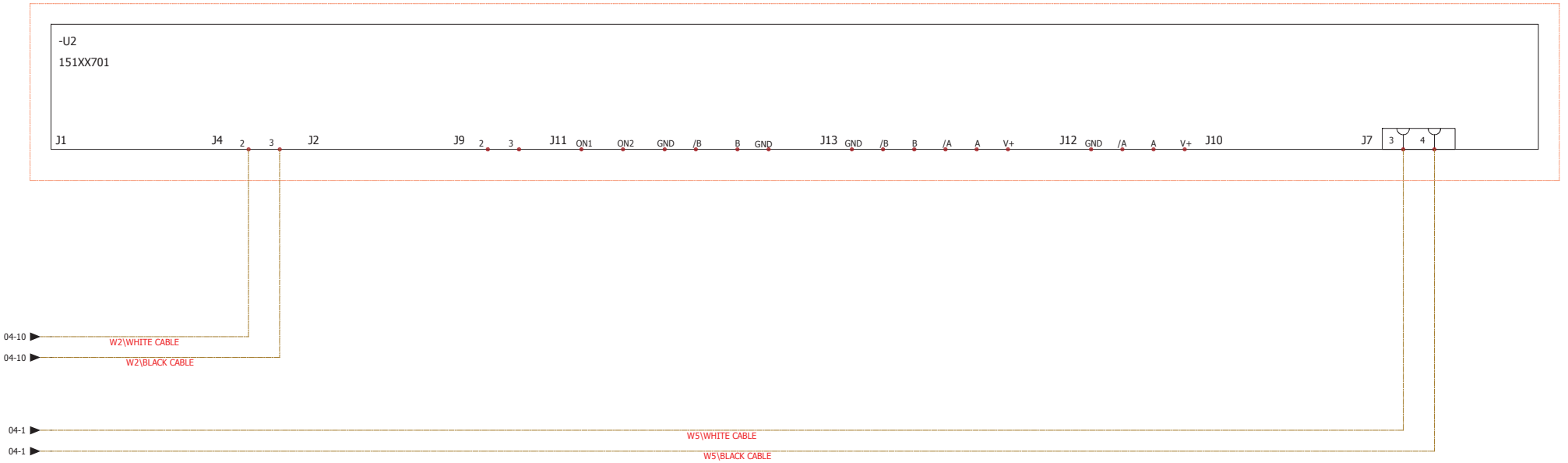
REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	29/05/2015	mayestaran	

REVISION 2

SCHEME 05

1	2	3	4	5	6	7	8	9	10

+P3 - LEFT LATERAL



Valco Melton, S.L.U.
European Headquarters
Pol. Ind. Agustinos C/G N34
31160 Orcoyen, Navarra, Spain
Tel: +34 948 321 585
Fax: +34 948 326 584

VFD BOARD CONNECTION

PROJECT: S760040200 KIT PCM6 EDGE BANDING

REV.	DATE	NAME	CHANGES
2	17/06/2015	mayestaran	PM18648 Encoder cable change
1	01/06/2015	mayestaran	PM18594 WIRING CHANGE
0	29/05/2015	mayestaran	

REVISION 2

SCHEME 06

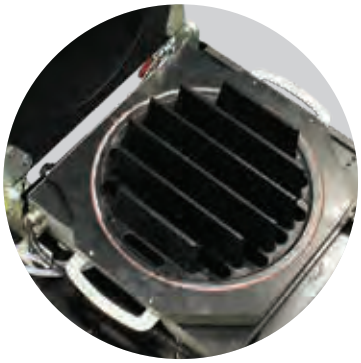
IsoMelt Series

PUR Adhesive Melter

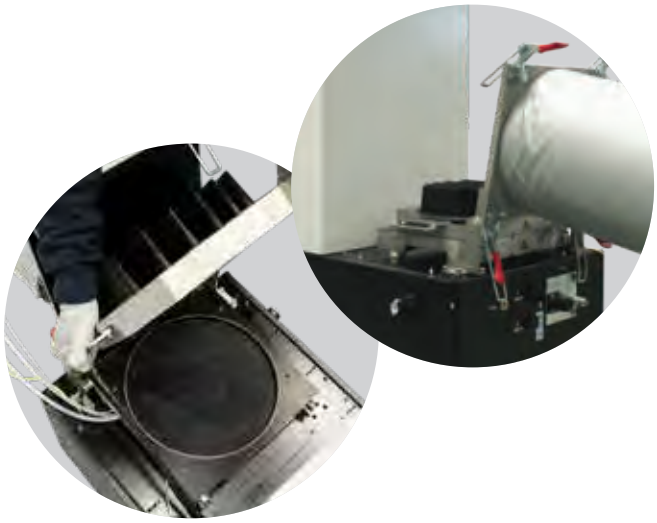
Valco Melton's IsoMelt Series has been redesigned to achieve the highest melting rates in the industry. Although specifically designed to process reactive hot melts such as PUR, IsoMelt units allow for fast and easy changes to EVA or APAO without adhesive degradation. IsoMelt units can work with up to 40 liters of adhesive.

IsoMelt Series Benefits:

- An improved melting grid design makes IsoMelt the units with the highest melting rate in the industry.
- Easy removal of adhesive residue allows switching between PUR and other types of adhesive.
- Ideally suited for any PUR applications, including those in the automotive, textile, product assembly, woodworking and PVC industries.



A new finned grid design with cast-in heaters improves the tank's heating capabilities, achieving up to 50% higher melting rates.



Its tiltable tank and removable melting grid facilitate maintenance and cleaning operations, which may be carried out faster and safer.

Up to 2 pumps to maximize production. Ensure cleaner applications with the integrated filter in the pump manifold.

Dry air blanket prevents moisture from reaching the adheshive

IsoMelt Units feature a Teflon® coated round tank for easy cleaning, with an air-tight swiveling tank lid. An integrated low level sensor facilitates operator refilling operations.

The integrated grammage control, accesible through a multi-function controller, simplifies operator's programming tasks to elminate product loss and downtime associated with incorrect coat weight adjustments.

Technical Specifications

IsoMelt Series Units	
Tank Capacity	40 L
Melting Capacity	PUR: Up to 35 Kg/h | EVA: Up to 50 Kg/h (*)
Max. Pumping Capacity per Pump	90 Kg/h (**)
Number of Pumps	2
Working Temperature Range	15 - 230 ºC
Electrical Connection	230 V 3-phase Δ / 400 V 3-phase Y – 50/60 Hz
Max. Working Viscosity	50,000 cps
Max. Working Hydraulic Pressure	80 bar
Max. Electrical Tank Consumption	7600 W single pump unit / 8700 W double pump unit
Adhesives	PUR / EVA / APAO

(*) Melt rate may vary depending on adhesive type and viscosity
(**) Max. pumping capacity using a 15cc pump

	4 Output Electronic Board	
Max. channel power	Channel 1 / Channel 2	Channel 3 / Channel 4
Per channel (hose and gun)	2000W	1400W

VALCO MELTON

For more information, visit valcomelton.com or contact your local Valco Melton representative.
World Headquarters: USA, Cincinnati, Ohio (Corporate Offices) • Tel:+1.513.874.6550 • Fax: +1.513.874.3612
Europe Headquarters: Spain, Navarra • Tel:+34.948.321.580 • Fax:+34.948.326.584
Asia Headquarters: China, Xiamen, Fujian • Tel:+86.592.591.7854 • Fax:+86.592.591.7834
inquiry@valcomelton.com • Serving over 76 Countries Worldwide • valcomelton.com

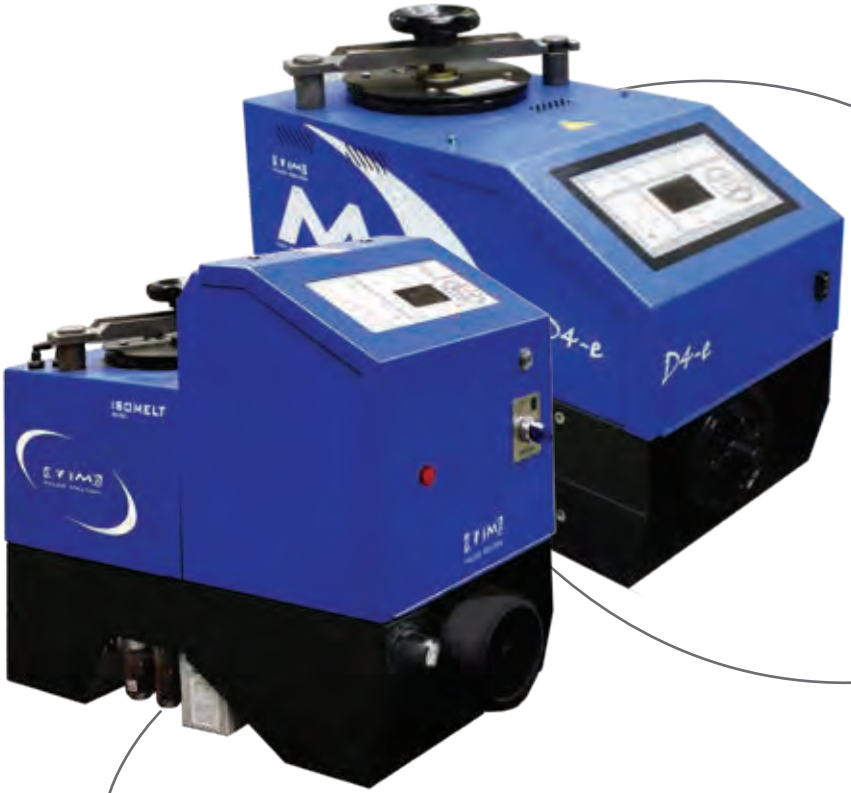
IsoMelt Mini & D4 PUR Series

PUR Adhesive Melters

Valco Melton's IsoMelt Mini and D4 PUR Series have been specifically designed to process reactive hot melts such as PUR. The tank can accommodate 2kg PUR standard slugs and work with up to 4 liters of adhesive. All units feature a fully integrated multi-functional controller that is accessible from a user-friendly screen, allowing for fast and easy configuration changes and providing 'key-to-line' capabilities.

Isomelt Mini & D4 PUR Series Features

- Ideal for edge-banding, post-forming, bookbinding, product assembly and clear packaging.
- No cleaning is required, which eliminates the need for weekend shutdown.
- Swiveling tank lid allows for faster changes of PUR slugs, minimizing downtime.



Airtight tank opening and blowing system.

Integrated grammage control, accessible through a MFC controller, simplifies the operator's programming tasks to eliminate product loss and downtime associated with incorrect coat weight adjustments.

Dry air blanket prevents moisture from reaching the adhesive.

Teflon® coated round tank offers easy cleaning and minimized adhesive degradation.

Ensure a cleaner application with the integrated filter in the pump manifold.

- Optional pneumatic pressure regulation
- Optional lighting beacon and unit alarms to indicate low adhesive levels
- Wide range of available options permits complete customization based on specific user needs

Technical Specifications

Unit	IsoMelt Mini Series	D4 PUR Series
Tank Capacity (L)	4L	
Melting Capacity (Kg/h)	5 Kg/h *(*)*	
Adhesives	PUR	
Number of Pumps	1	
Working Temperature	30 - 230 ºC	
Electrical Connection	230 V 3-phase Δ / 400 V 3-phase Y – 50/60 Hz	
Max. Working Viscosity	35,000 cps	
Max. Working Hydraulic Pressure	100 bar	
Max. Electrical Tank Consumption	1200 W	
Max. Pumping Capacity per Pump (Kg/h)	48	24
Variable Speed	Yes	No
Grammage Control	Yes	No
Max. Electric Exits	4	2
Hydraulic Exits	4	2

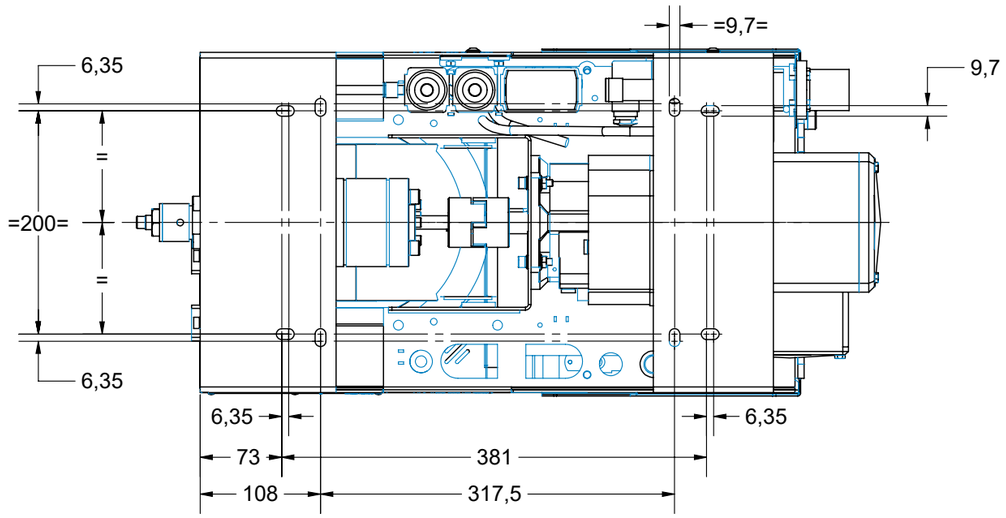
(*) Melt rate may vary depending on specific adhesive type

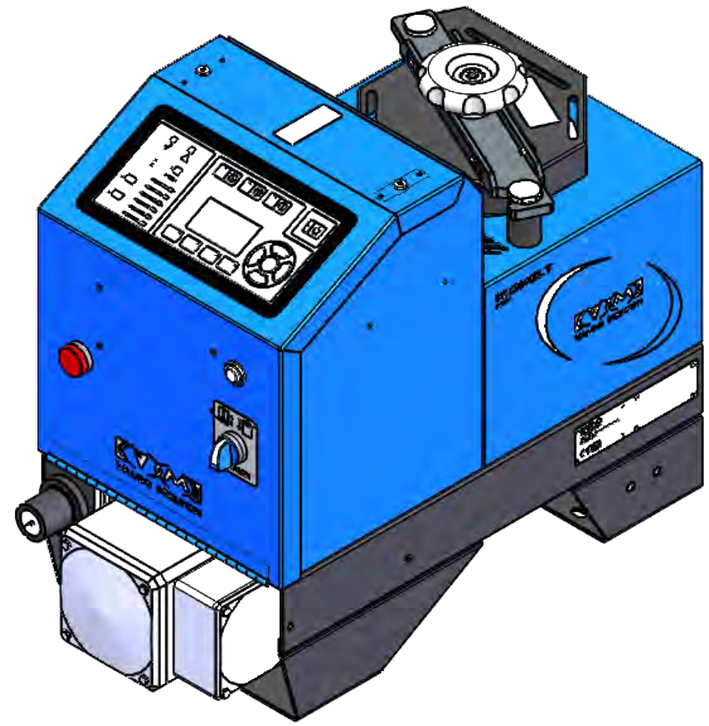
	4 Output Electronic Board			
Max. channel power	Channel 1 / Channel 2		Channel 3 / Channel 4	
Unit	IsoMelt Mini Series	D4 PUR Series	IsoMelt Mini Series	D4 PUR Series
Per channel (hose and gun)	2x1800	2x1150	2x1400	-

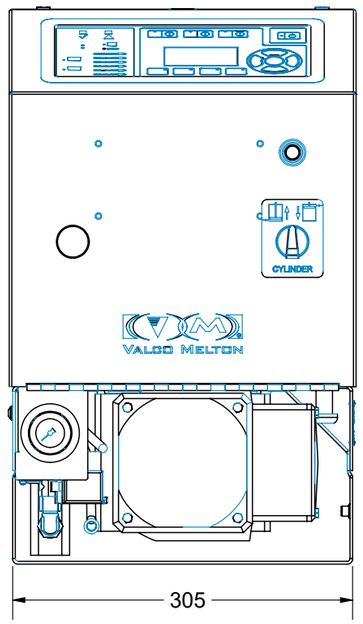
VALCO MELTON

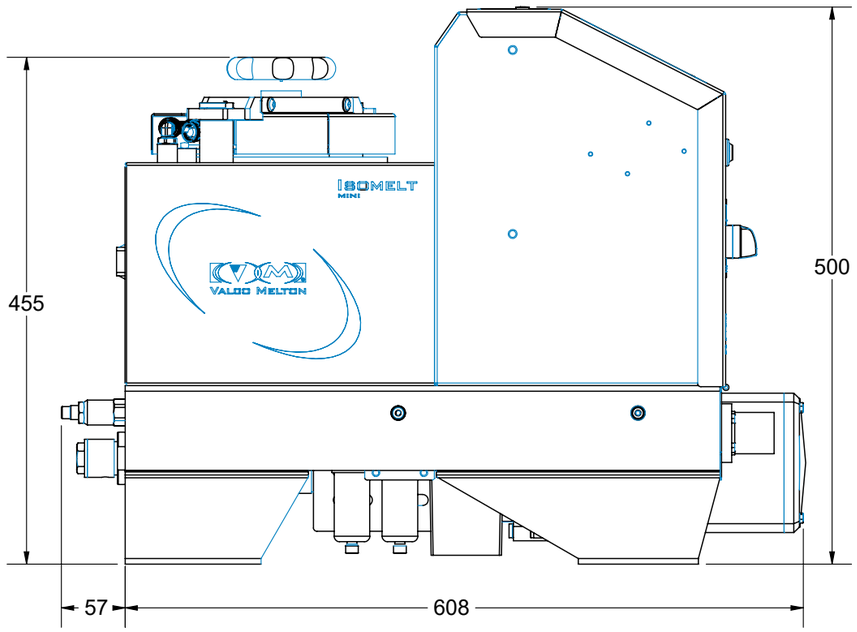
For more information, visit valcomelton.com or contact your local Valco Melton representative.

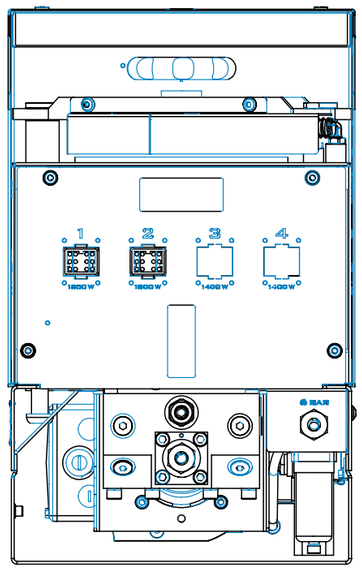
World Headquarters: USA, Cincinnati, Ohio (Corporate Offices) • Tel:+1.513.874.6550 • Fax: +1.513.874.3612
Europe Headquarters: Spain, Navarra • Tel:+34.948.321.580 • Fax:+34.948.326.584
Asia Headquarters: China, Xiamen, Fujian • Tel:+86.592.591.7854 • Fax:+86.592.591.7834
inquiry@valcomelton.com • Serving over 76 Countries Worldwide • valcomelton.com

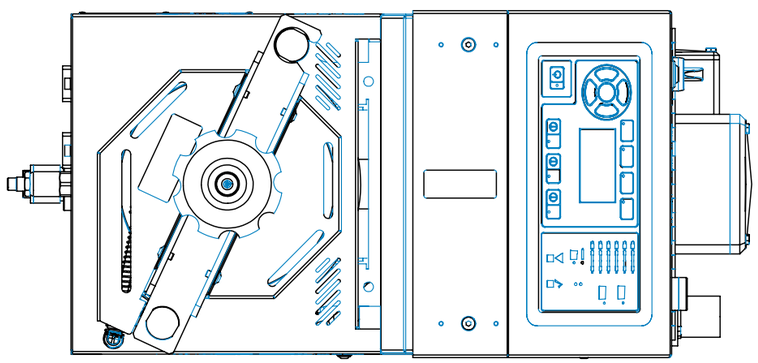












ISOMELT MINI - NORD

VALCO MELTON