Declaration of conformity

The product: _____

Model nº: _____

Serial nº: _____

Year of manufacture: _____

Described in the enclosed documentation is in conformity with:

- Directive 2006/42/EC of 29 December 2009 which replaces Directive 98/37/EC of 22 June 1998 on *the approximation of the laws of the Member States relating to machinery*, which regroups Directives 89/392/EEC of 14 June 1989, 91/368/EEC of 20 June 1991, 93/44/EEC of 14 June 1993 and 93/68/EEC of 22 July 1993. Directive applicable to standard EN ISO 12100-1 and EN ISO 12100-2, related to *safety of machinery*; standard EN ISO 14121-1 and EN ISO 14121-2, related to *safety of machinery. Risk assessment*; standard UNE-EN 60204-1, related to *safety of machinery. Electrical equipment of machines*; standard UNE-EN 61310-1, UNE-EN 61310-2 and UNE-EN 61310-3, related to *safety of machinery. Indication, marking and actuation.*

- Directive 2006/95/CE of 12 December 2006 which replaces Directive 73/23/EEC of 19 February 1973 on electrical equipment.

- Directive 2004/108/EC of 20 July 2007 which replaces Directive 89/336/EEC of 3 May 1989 on Electromagnetic Compatibility.

- Directive 93/68/EEC of 22 July 1993 which modifies 73/23/EEC and Directive 89/336/EEC.

- Hoses are factory tested at 100 bars and at 220ºC.

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
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31160 ORCOYEN (Navarra) SPAIN

VALCO MELTON

CONTROL REGISTRATION

CONTROL NUM:

.....

DATE: .....

ELECTRIC CHECK: ☐

CONTROL BOARD CHECK: ☐

TEMPERATURE CONTROL CHECK 150º/180º: ☐

HYDRAULIC CHECK (100 bar): ☐

PNEUMATIC CHECK: ☐

APPLICATOR SERIAL NUMBER:

GUARANTEE CARD

DISTRIBUTOR:.....

CONTACT :.....

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

OEM:.....

ADDRESS:.....

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

USER:.....CONTACT:.....

ADDRESS:.....

SYSTEM LOCATION:.....

TELEPHONE:.....DATE OF INSTALLATION:.....

GARANTEE UNTIL:.....

APPLICATOR SERIAL NUMBER:

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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.

FAILURE TO FOLLOW SAFETY INSTRUCTIONS MAY RESULT IN BURNS, INJURY OR PERMANENT PHYSICAL 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.

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CHAPTER 1
SAFETY INSTRUCTIONS

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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

Elements susceptible to electrostatic discharge

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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 skin injury.

Qualified personnel:

Qualified personnel are technical staff members who have acquired sufficient knowledge in a specific field, through either training or 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:

Clothing will be compliant with EN510 and EN340 standards, protecting against flying debris and high temperatures.

Clothing 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:

Goggles will be compliant with the EN 166 standard, protecting against flying debris and high temperatures.

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

Protective gloves:

Gloves will be compliant with EN 407 and EN 420 standards, protecting the hands against burns caused by external, heated substances at temperatures above 100 °C.

Elements susceptible to electrostatic discharge:

When handling equipment, avoid contact with electronic components and metal pins on the connectors.

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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 trained in correct operation (contacting the manufacturer whenever necessary), the risks involved and required safety measures, including adjustment and maintenance, and expressly-forbidden operations.
- This unit is not designed 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 provided guards in place (do not remove). These guards should be checked and maintained according to the maintenance schedule.
- 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 a basic knowledge of the machine, and of the mechanical, pneumatic and electrical circuits involved.
- Maintenance operations and/or repairs should always be performed with the machine switched off at the mains, and with the main switch locked and tagged out.

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1.3. FIRST AID:

***In case of burns*:**

Immerse the 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 after 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 the site with soap and water and discard all contaminated cloths.

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

INHALATION: In case of exposure to fumes, take the patient to fresh air and let them rest.

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

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CHAPTER 2
DESCRIPTION

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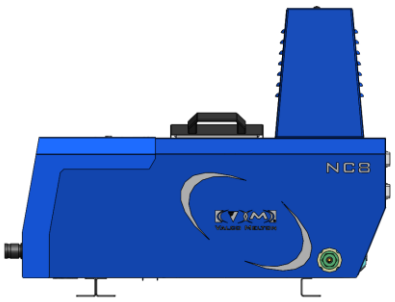
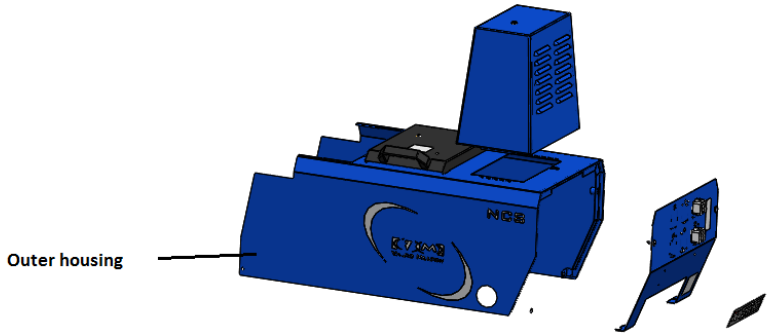
2.1. INTRODUCTION:

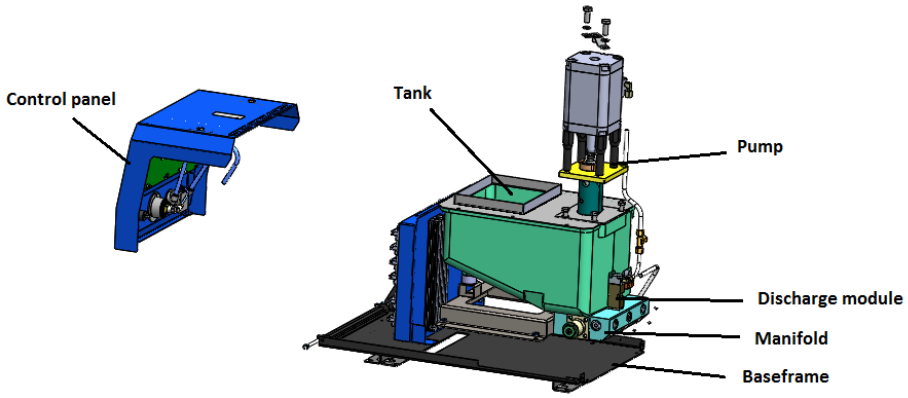
This machine is designed to melt hot-melt adhesive, or similar materials, in a heated reservoir. A pump then pressurizes the adhesive and transfers it to a manifold, where it flows through heated hoses to the application point.

2.2. MAIN PARTS:

The main machine parts are shown in the following figure:







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Equipment description

N.	DESCRIPTION
1	Baseframe
2	Pump
3	Manifold
4	Tank
5	Control panel
6	Outer housing
7	Discharge module

Optional parts

DESCRIPTION
Level sensor
Vacuum feeder

2.2.1. Frame:

The frame consists of a base plate on which the equipment is installed.

2.2.2. and 2.2.3. Pump-distribution system:

This system transfers adhesive from the tank to the manifold.

Manifold:

The manifold distributes the Hot-Melt, once filtered, to the hoses and guns.

Made of aluminium, it is located on the lower part of the tank so the tank heaters can heat it indirectly.

The manifold filter consists of a core and a fine, in-line filter screen to filter crystal particles or dirt that could be present in the adhesive.

The manifold has six outlet holes to connect the Hot-Melt hoses: three on the top row and three on the bottom row.

Pump:

The pump delivers the Hot-Melt, or other molten product, at a set pressure, from the tank to the substrate (or material to be glued), after passing through a manifold, filter, hoses and guns.
The pump system consists of an electrovalve, a pneumatic cylinder and a double-acting hydraulic pump with a pressure compensator, to avoid a drop in the flow produced when changing pump direction, and enabling uniform Hot-Melt discharge.

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Do not disassemble the manifold. This operation should only be done if there is a Hot-Melt leak between the tank and the distributor.

2.2.4. Tank:

The Tank is where the Hot-Melt or other similar material is melted (the other material can be in the form of pellets or blocks). The cast aluminium tank is lined with Teflon to avoid carbon deposits and crystal formation, and incorporates a resistance heating system.

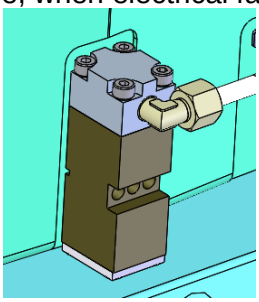
A sensor with a micro-controller controls resistance heating, and can be programmed up to 240ºC.

2.2.5. Control Panel:

The control panel, containing the machine's operating and adjustment switches, is on the front of the main electrical cabinet.

2.2.6. Discharge module:

The discharge module actuates like a flow valve. When the system is operating normally, the module stays closed, but if there is an electric failure, the module will open immediately (the air to maintain it closed has been stopped due to the electric failure), so that pressure in the hoses and guns will go to the tank.
The purpose of this module is to avoid dangerous situations, due to residual adhesive pressure, when electrical failures occur.



2.2.7. Level sensor:

The level sensor measures the adhesive level in the tank. With this, it is possible to determinate acceptable high and low adhesive levels in the tank. After adhesive reaches the top level, the sensor sends the signal to stop filling. When it reaches the lowest level, it sends the low signal and the vacuum feeder is automatically activated.

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2.2.8. Vacuum Feeder:

The purpose of the vacuum feeder is to automatically fill the tank with adhesive from an external container. This system is controlled by a sensor that automatically detect a need for adhesive.
If the sensor detects a low level of adhesive, the electrovalve opens and the vacuum feeder will supply adhesive until it detects high adhesive level. If the adhesive does not load before 200 seconds, a red-colored light will blink and an alarm will sound.
When the vacuum feeder lid is opened, it will deactivate. To reactivate it, close the lid and lock it properly.

2.2.9. Other key elements:

Pressure regulator:

This is the element used to raise or lower the pressure to the piston pump. It is regulated dependent on the application. It includes an air filter to prevent impurities entering the machine.

Bleed electrovalve:

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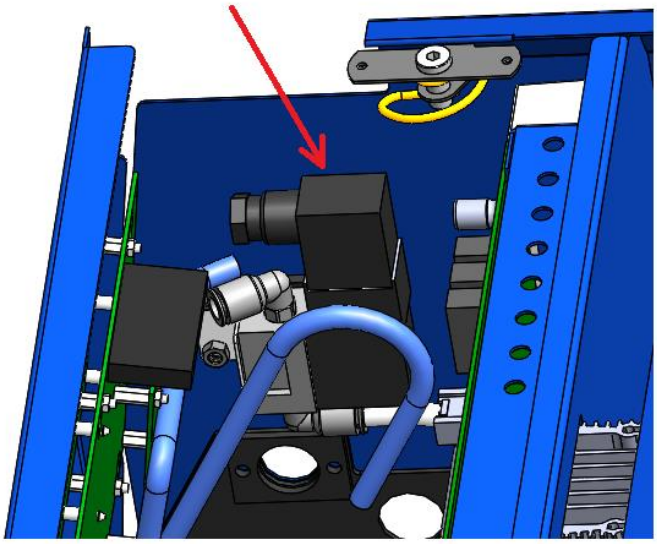
This is the element that controls air passage to the pump. It is electrically connected to the electrical control system. This allows the applicator to adapt to the main machine speed.



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2.3. TECHNICAL CHARACTERISTICS:

ELEMENT	*DATA*		
GENERAL			
Power supply	I 220V+N+T (50/60Hz), III 220V+T (50/60 Hz), III 380V+N+T (50-60Hz)		
Hoses (max.)	6		
Hydraulic pressure (maximum working)	2.8 – 80 bar (40 – 1138 psi)		
Noise level	63 dB		
Working temperature	-10 – 50 ºC (32 – 122ºF) HR 20% to 80% non-condensed		
CONTROL			
Working temperature	15º - 230º C (59º - 446º F)		
Temperature control precision	+/- 0.5º C (+/- 1º F)		
Type control	PID Control		
PUMP	**LOW FLOW**	**HIGH FLOW**	
Pumping capacity (Kg./h)	35	100	
Pump compression ratio	1:14	1:13	
Pneumatic working pressure	0.5 to 6 bar		
TANK	**NC4**	**NC8**	**NC16**
Volume (litres)	4	8	16
Melting capacity (Kg./h)	4.2	7.9	15.5
Tank electrical consumption (W)	1700	2800	4000
VACUUM FEEDING			
Compressed air input	2 - 6 bar (29 up to 87PSI) - 350 l/min (92 gallon/minute)		
Hose length	3m		

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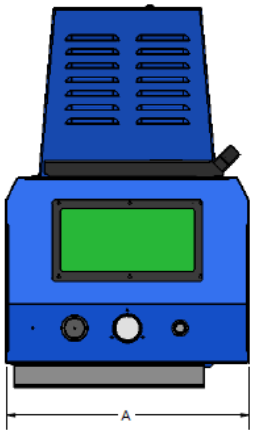
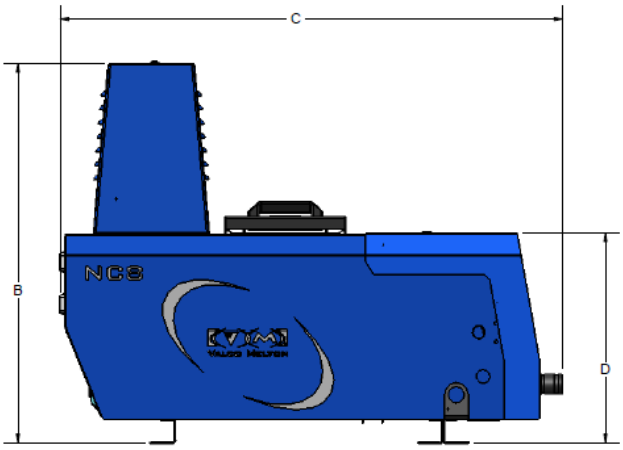
2.4. DIMENSIONS:

2.4.1. GENERAL DIMENSIONS:





Dimensions (mm)	NC4	NC8	NC16
A	345	345	345
B	540	540	600
C	640	714	714
D	300	300	360

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CHAPTER 3
MACHINE INSTALLATION

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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 safety instructions.

3.2. TRANSPORT:

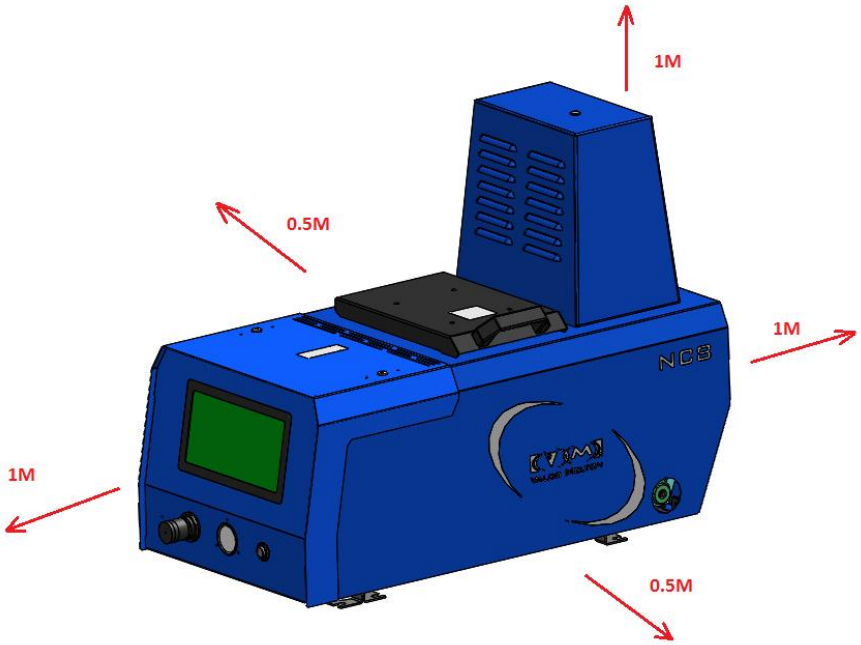
The unit is supplied packed in a cardboard box.

Remove the top and sides to unpack it.

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

3.3. INSTALLATION REQUIREMENTS:

Install the following equipment, leaving enough space for access during operations.



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

Avoid installing the equipment where there are drafts. If this is not possible, the guns will need protection; if the temperature falls rapidly they may not work properly.

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3.4. MECHANICAL INSTALLATION:

Mechanical installation includes the following:

- Positioning the equipment.
- Connecting the hoses.
- Connecting the Vacuum feeder.

Positioning the equipment:

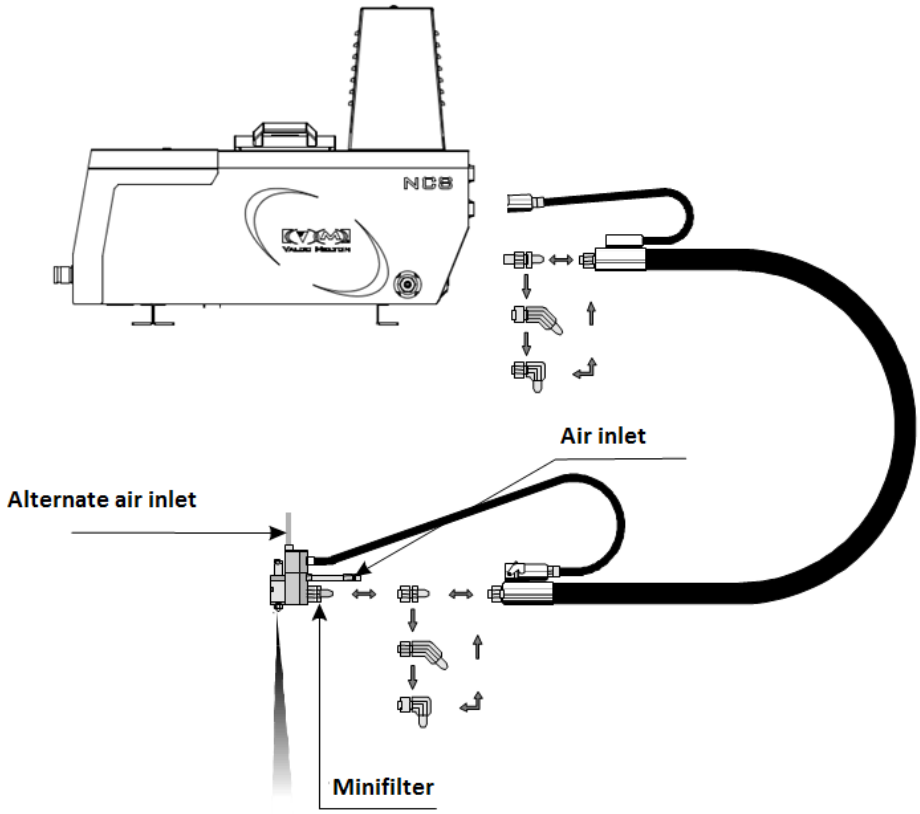
Remove the equipment from the box, and position it according to installation requirements (chapter 3.3)

Connecting the hoses:

Proceed as follows:

Make sure the equipment is depressurised before connecting the hose. Set the air pressure regulator to zero and activate valves to bleed pressure. Heat the machine to melt any adhesive that may be present.

Remove the appropriate hose outlet plug from the manifold (see below):



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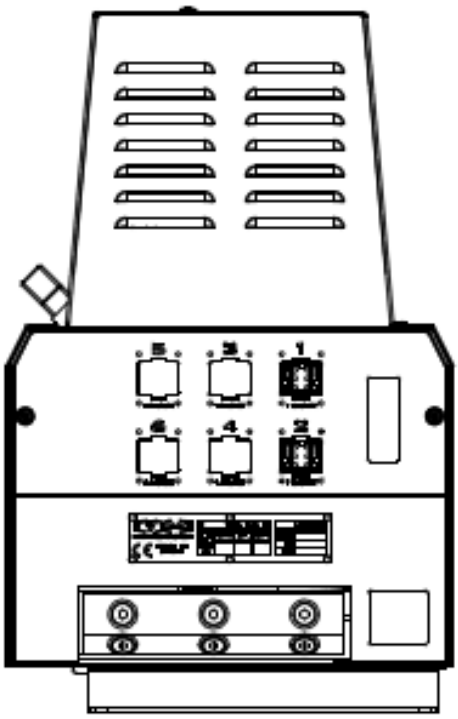
Connect the hoses from right to left. Failing to do so will create a dead spot where carbon deposits accumulate, increasing nozzle blockage problems.



For the hydraulic connection: If the unit is full of adhesive, heat the tank before removing the manifold cap.

Hose Installation:

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

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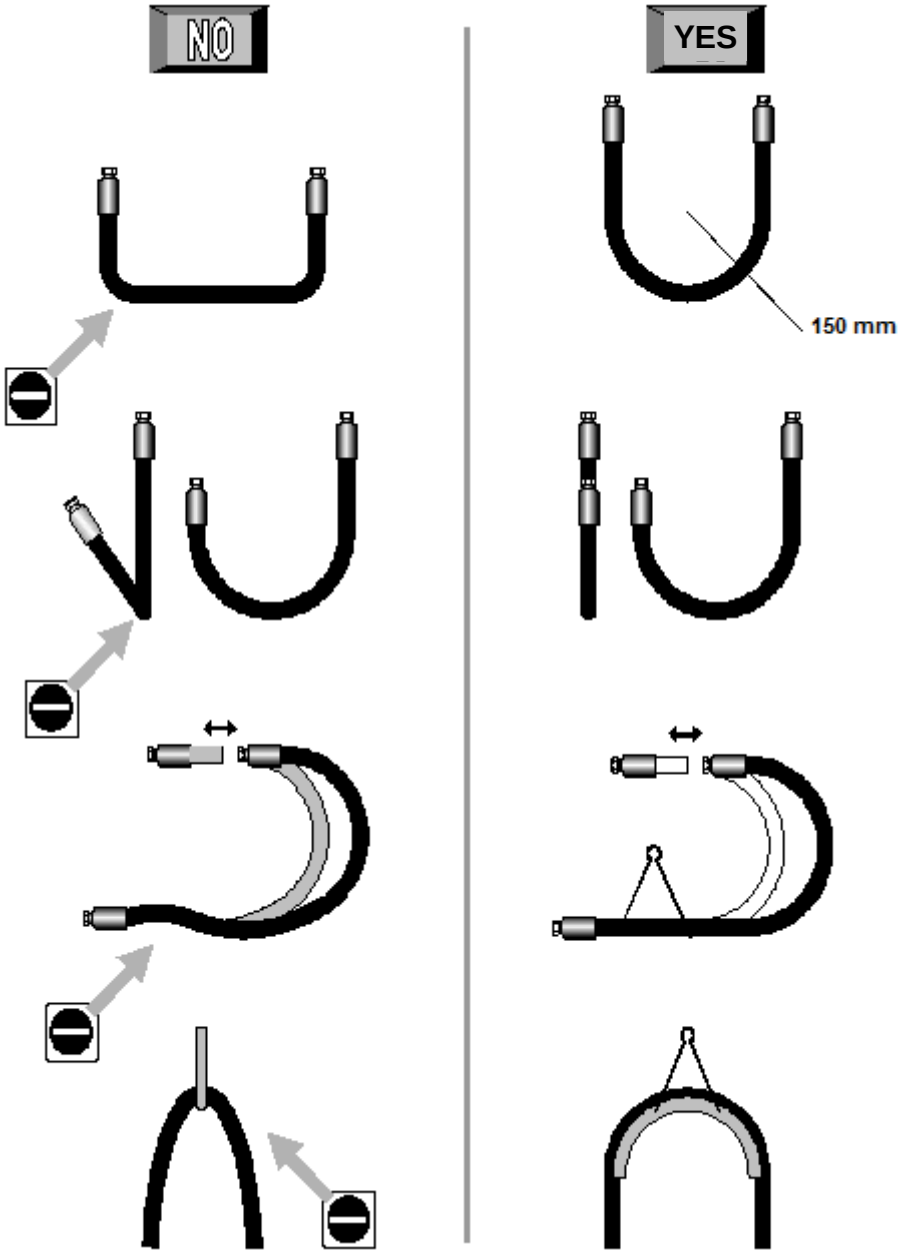

The hoses should not be in contact with very wide, cold surfaces.

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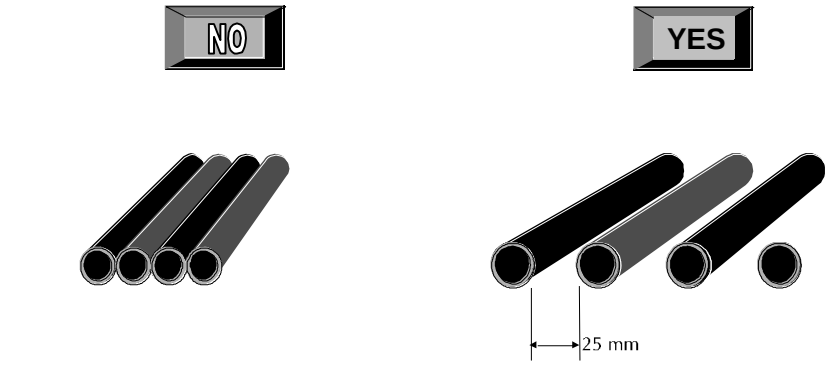
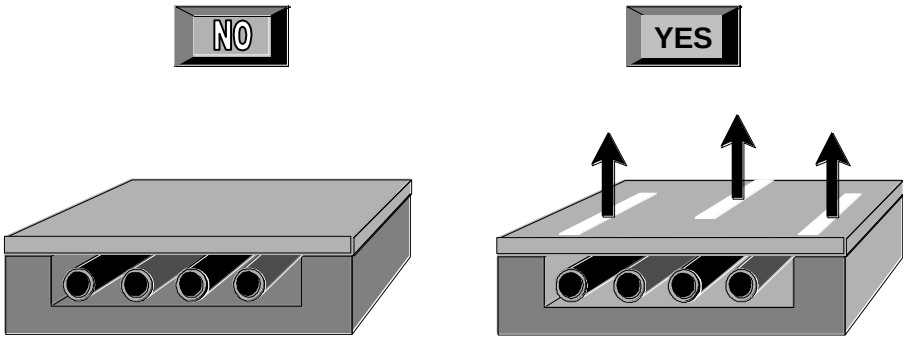
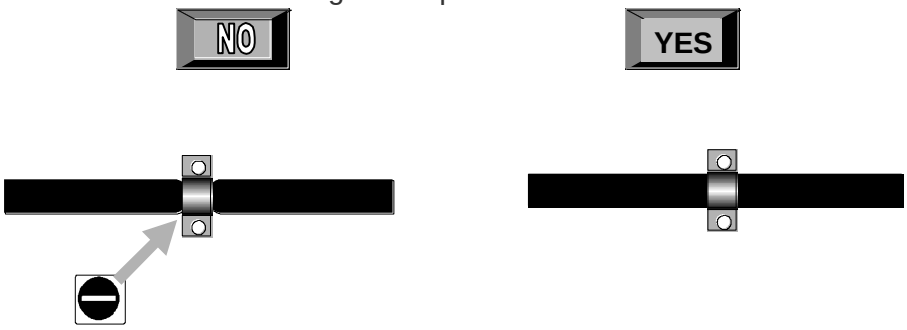
Do not install hoses side-by-side; leave a minimum separation (25 mm) between them so heat can dissipate.



Do not cover the hoses. If it is necessary to do so, leave ventilation holes for heat dissipation.



Do not install hoses with tight clamps.



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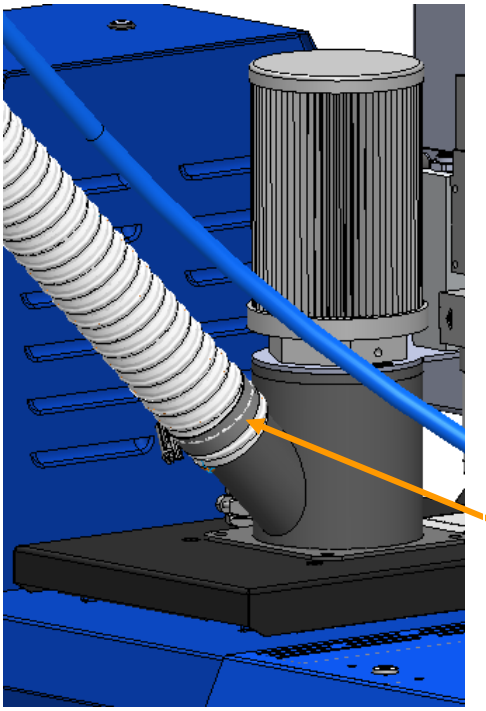
Installing the Vacuum Feeder:

Proceed as follows to connect the vacuum feeder:

1. Remove the vacuum feeding kit from the packaging. This kit includes all of the tubes needed to install the feeder, as well as other components to be explained later.

2. Use a clamp to connect the lower tube to the part of the chimney (located above the tank cover) reserved for the feed outlet, as shown in the picture.



3. Connect the air line (provided in the vacuum feeder kit) to the flow regulator, as shown in the picture.

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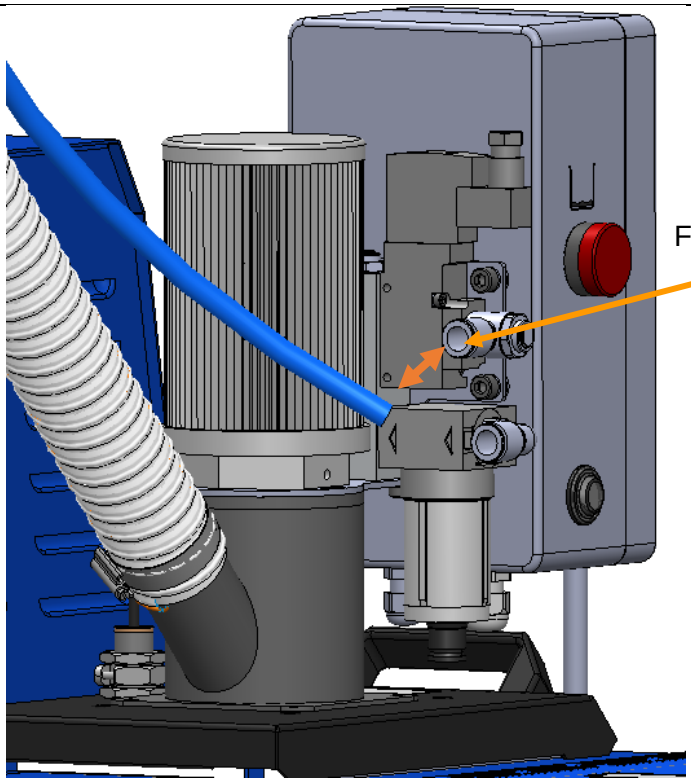
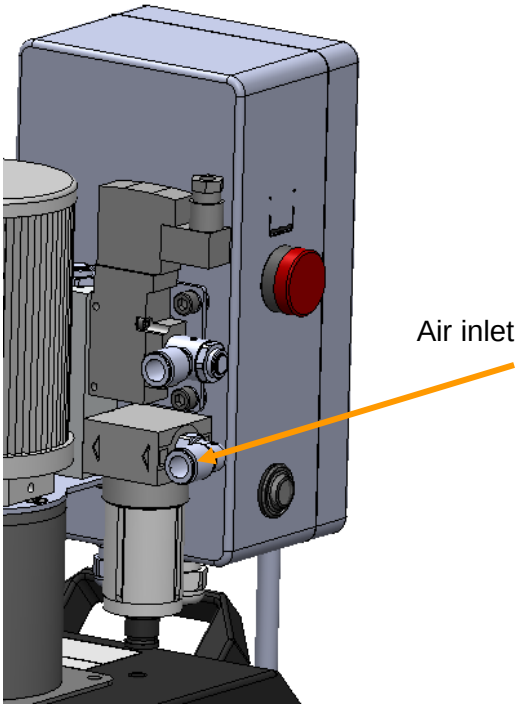


4.- Connect the air line to the vacuum feeder. The air connection of the vacuum feeder is prepared for a pipe Ø10. Ensure the correct installation of the pipe.



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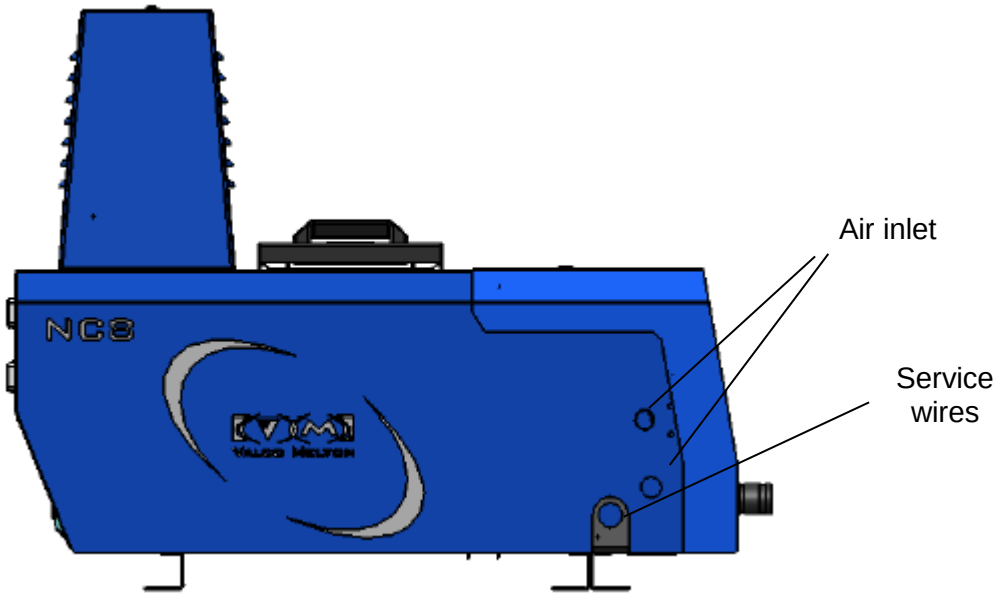
3.5. PNEUMATIC INSTALLATION:

Connect the air line to the regulator. Make sure the air-connection line has the capacity necessary for proper pump operation.



3.6. ELECTRICAL INSTALLATION:

The rush current depends on the model. See wiring diagrams.

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CHAPTER 4
MACHINE ADJUSTMENT

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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.

4.1. TEMPERATURE CONTROL:

4.1.1. Introduction:

The temperature of the tank, hoses and guns in the Hot – Melt application equipment is regulated by a digital electronic device controlled by microprocessor.
Regulation is proportional, with factory-set parameters for the separate heating inertias of the tank, hoses and guns.
The temperature is measured by the RTD sensor on each of the heating devices. These can be programmed individually and on each output channel between 30º - 240º C (86ºF – 464ºF).
The range ability (measurement range) of the controller is between -25ºC(-13ºF) and 240ºC(464ºF).

Below -10 °C(40oF), the equipment will display a probe short circuit fault. Above 220 °C(454oF), the display will report on an open probe fault.

4.1.2. Brief description of how the unit operates:

The unit is equipped with proportional temperature control for the heating resistances connected to 4 double hose-gun channels and a special channel for heating the tank, with menus to access parameter programming and control of the operating clearance for the main machine, alarms and different operating functions (SCAN, ENERGY SAVING, etc.), which will be described later.
The control panel includes a 10-digit display with 7 ultra-bright segments showing the unit's operating data, plus the alarms that are produced by the sensor signals. There are also LEDS displaying heating resistance output status, pressure pump, overheating alarms, safety and energy saving status.

Preheat function:

Because the heat inertia of the glue tank is much greater than for all the peripheral devices, these devices reach the programmed temperature much earlier than the tank. This rapid heating process has an ageing effect on resistances and insulation. This phenomenon also creates excessive fluid pressure in the hoses.
To offset this problem, the unit has been fitted with a preheat system that heats all the peripheral devices (hoses and guns) in a sequential manner, while the tank is heated at normal speed. When the tank reaches 75% of the programmed temperature, heat is supplied to the hoses. When the hoses reach 75% of the programmed temperature, heat is supplied to the guns.

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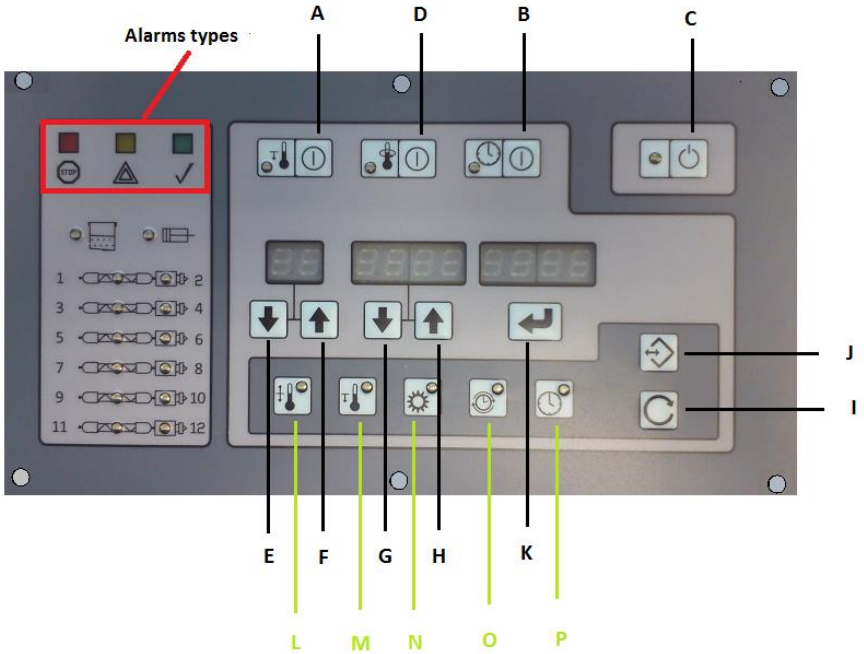
4.1.3. Description of the control panel:

4.1.3.1 Keyboard:

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



A KEY: (Heating Control On/Off) It turns on and turns off the equipment. When it is switched on it will return to the operating mode at which it was previously switched off, either ON or ENERGY SAVING. When the equipment is switched off, the display shows the day of the week and the time, and the day of the week and time when it will automatically switch on again if the TIMER function is enabled.

B KEY: (Timer On/Off) It switches on or off the automatic on/off programme of TIMER function.

C KEY: (Scan On/Off) It switches the SCAN function on or off, this function displays a sequence of the temperature values of the active channels.

D KEY: (ENERGY SAVING On/Off). It switches the ENERGY SAVING function on or off, with this function the equipment works with 50%-80% of energy.

E AND F KEYS: Navigation keys for channels or programming values.

G AND H KEYS: data change keys for programmable values.

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K KEY: (ENTER) This key is used to validate the data that has been changed in the programmes. This key is also used for resetting the audible buzzer alarm.

I KEY: (Programming) Navigation key through all the programming menus.

J KEY: (Enter/Exit Programming) This key enters and exits the programming menu.

4.1.3.2 Display

The control panel has a 10-digit 7-segment display in 3 blocks.

The two digits on the left indicate the device/zone for which the information appears in the blocks of digits further to the right.
The central 4-digit block displays the SET operating temperature and the programmed parameter values.
The 4-digit block on the right displays the PRESENT operating temperature and it is also used as a display in some programming stages.

Channels visualisation*:*

Through navigation keys displays the selected channel, the programmed temperature and the real temperature.

C0	Tank		
C1	Hose EXIT 1	**C7**	Hose EXIT 4
C2	Gun EXIT 1	**C8**	Gun EXIT 4
C3	Hose EXIT 2	**C9**	Hose EXIT 5
C4	Gun EXIT 2	**10**	Gun EXIT 5
C5	Hose EXIT 3	**11**	Hose EXIT 6
C6	Gun EXIT 3	**12**	Gun EXIT 6

4.1.3.3 Indicators LEDs:

- ON/OFF state

LED ON/OFF: This shows the equipment state.

LED TIMER: This shows the TIMER function state.

LED SCAN: This shows the SCAN function state.

LED BM: This shows the ENERGY SAVING function state.

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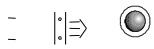
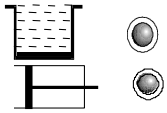
- Heating & pump state

LEDS 1,3,5,7 (9,11 according to equipment): They show the power outputs activation. Hoses.



LEDS 2,4,6,8 (10,12 according to equipment): These lights show that the power outputs to the heating resistances for the extrusion guns are switched on.



LED 0: This shows that the tank heating resistances are switched on.

LED B1: This shows that the pump and the external clearance relay (Ready Signal) are enabled.

- Others estates

LED STOP: stop signal by important failure. Heating off.

LED AL.: show alarm

LED OK: equipment in operative state. (Flashing: waiting time)

LED P. TEMP.: it show that equipment is in temperature programming menu.

LED P. BM.: it show that equipment is in energy saving programming menu.

LED P. PAR.: it show that equipment is in parameters programming menu.

LED P. REL1.: it show that equipment is in on/off TIMER function parameters programming menu.

LED P. REL2.: it show that we are programming the equipment clock

4.1.3.4 Functions:

ON/OFF Function

Heating on/off. By control board, by I/O connection and RS-485 communications. In case of the Modbus communication, it must be connected so the PLC can read the temperatures and controls the equipment.

If is OFF the display shows date and time.

TIMER Function

If it is on, the equipment do the programmed on/off. Estando habilitada, el equipo realiza las conexiones y desconexiones programadas.

SCAN Function:

This function displays a sequence of the temperature values of the active channels. Each 4 seconds show the values temperature of the channels in order. Only is operative in work mode.

ENERGY SANVING Function:

The equipment can be set on ENERGY SAVING to obtain important energy savings in five different ways, by selecting the temperatures of all the channels at a programmed % of their operating value (50% to 80%). This function disables the pump and the external permission associated and switches on the LED and the display shows a vertical line.

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This function can be entered in five different ways:

- By pressing the  key.
- By programming the timer.
- By enabling the external ENERGY SAVING signal (Option)
- By the end of a programmed time in which there has been no blue shot (Option)
- By RS-485 communications (Modbus). (Option)

Temperature regulation:

This function enables the heating when the temperature descends 2ºC below reference temperature and disables the heating when the temperature is the reference temperature.
This control guarantee a longer durability of the control components and minimize the disturbances emitted to the outside, fulfilling the EMC norm.

Pump and ready unit control:

The pressure pump and the associated external clearance relay (with power-free contacts) are switched on when the temperature of all the resistances (tank, hoses and guns) reaches the temperature range defined by their reference temperature and their maximums deviations. The pump and the ready unit are switched off when any one of them go out of the temperature range.
There is a delayed clearance parameter (P3) that provides extra heating time. The P3 time starts when the last element reaches the temperature range. While the temperature of the tank is in the temperature range, the delay time is inhibited.
In the heating, while the equipment is in a temperature and the delay time is not finished, the Green LED is flashing.

Preheat Function:

The preheat system does that all peripherals (hoses and guns) are warmed up by sequential form while the tank does it at normal speed. When the tank reaches the 75% of the programmed temperature, the energy is applied to hoses. When the hoses reach 75% of the programmed temperature, the energy is applied to the guns.

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4.1.3.5 Alarms:

The unit has several alarms, informing of faults in the measurement sensors, out-of-range temperatures or temperatures above programmed safety levels.

Alarms types

Solid green light: Unit is ready for operation.

Solid yellow light: Temperature is outside set point.

Flashing yellow light + audible buzzer: Feeder is not filling the tank.

Solid yellow light and flashing red light: Failure in RTD (displayed by AAA or CCC on display). You have 2.5 minutes to solve warning before machine stop.

Solid red light + audible buzzer: Machine security stop. Failure in RTD or overheating. All leds will be disabled and display will flash. Audible buzzer will sound for any feeder or stop alarm. You can stop this buzzer by pressing the  key. Feeder alarm will reset once the level is ok again.

– **Security:**

Whenever a device reaches the programmed safety temperature (P4), the amber LED will light up, the external alarm will be switched on and the red LED will flash off and on for 2.5 minutes. If all the problems have not been solved after 2.5 minutes, the red LED will remain on all the time, the outputs will be blocked (at the main switch) and the equipment will cease to function. The display will flash on and off.
The equipment also includes a safety system with a bimetallic thermostat on the wall of the tank, adjusted to 240ºC (490 oF).
When the thermostat is triggered, it will de-activate the main switch coil, disconnecting the power to the heating resistances but continuing to supply the control electronics, so that the control panel display can identify the device that is the source of the problem.
When the equipment is blocked like this, the sensor temperature readings are frozen and the user can check the status of each sensor.
After repairing the fault, the equipment has to be switched off and on again.

– **Amber:**

Temperature:

Each time the temperature of a device goes outside the programmed ALARM MARGIN (P5, P6 & P7), the alarm signal will be enabled and the out-of-range temperature amber LED will light up solid.

Sensor faults:

If there is a short circuit in one of the measuring sensors, the equipment will display “CCC” instead of the temperature for the part

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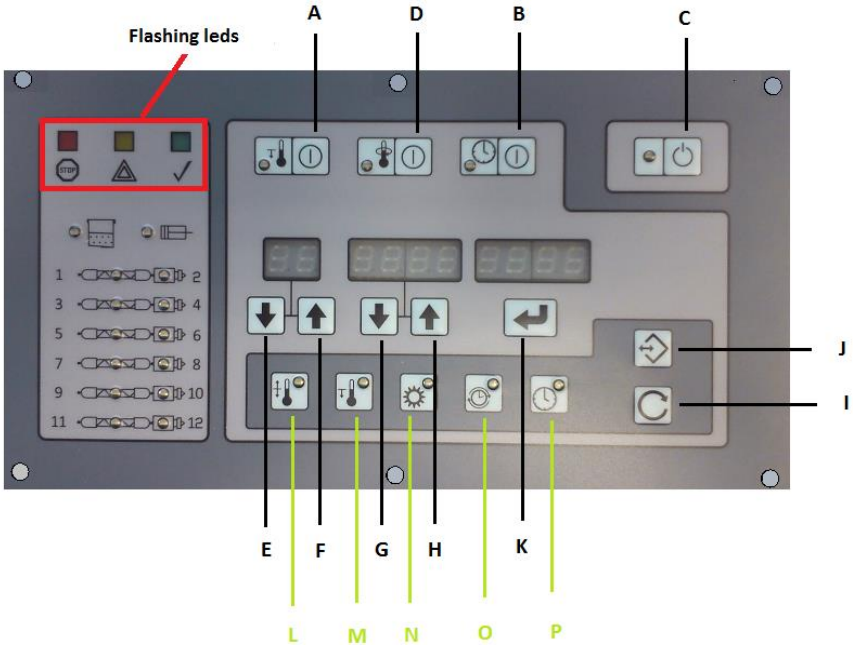
(tank, hose, gun) involved. If an open circuit sensor fault is detected, the display will show “AAA” instead of the temperature.
When an alarm of this kind occurs and the relevant channel is on, the amber LED will light up, the external alarm will be switched on and the red LED will flash on and off for 2.5 minutes. If all the problems have not been solved after 2.5 minutes, the red LED will remain on all the time, the outputs will be blocked (at the main switch) and the equipment will cease to function.

Filter change alarm:

We get a filter change alarm once the equipment reaches 2000 hours (P10, by default 2000 hours) of work. We can recognize this alarm when the three leds pointed below Start blinking at the same time (Red+Yellow+Green). We can reset the alarm by selecting channel P10 and push clock button.

Alarm reset process as follows:



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Push "J" → You gain access to program menu.

Push "I" → Go to P0. (If you get directly P1 –A go to next step).

Introduce Password → P0 = "123" + ENTER = "K"

Introduce → P1 = "1". + ENTER = "K"

Push "F" until you get to P10.

Push "B" → The filter change alarm is now off.

Push "E" until you get to P1.

Introduce P1 = "0" + ENTER = "K"

Push "J" in order to exit the program menu.

End of filter change alarm reset process.

– **Green**

When this light is on, it means that the temperature of all the devices is correct and that there is no alarm situation. The unit is ready for operation.

4.1.3.6 Connections with the main equipment:

External clearance:

This contact (potential free) is closed when the equipment is prepared to work , that is to say, when the pump permission has occurred.

Alarm indicator:

This contact (free potential) is closed when the control connects the ALARM LED.

Security stop indicator:

This contact (free potential) is closed simultaneously that control activates STOP LED.

Access levels:

There are two level accesses:

a) Programming mode → P0 = 232; P1=[1]

b) Modify all configuration→ P0 = 123; P1=[2]

These two levels imply that the parameter P1 must have three types of access:

a) P1 = 2, no passwords. We can enter with programming mode and modify the parameters P.

b) P1 = 1, we can enter with programming mode but don`t modify the parameters P (except P0 and P1 = [0,1]) ([Acceptable range])

c) P1 = 0, when we try to enter in programming mode appears P0 to introduce the password. If we push ENTER with a incorrect password, the system goes out of the programming mode. Push ENTER button with a correct password the system enter to the

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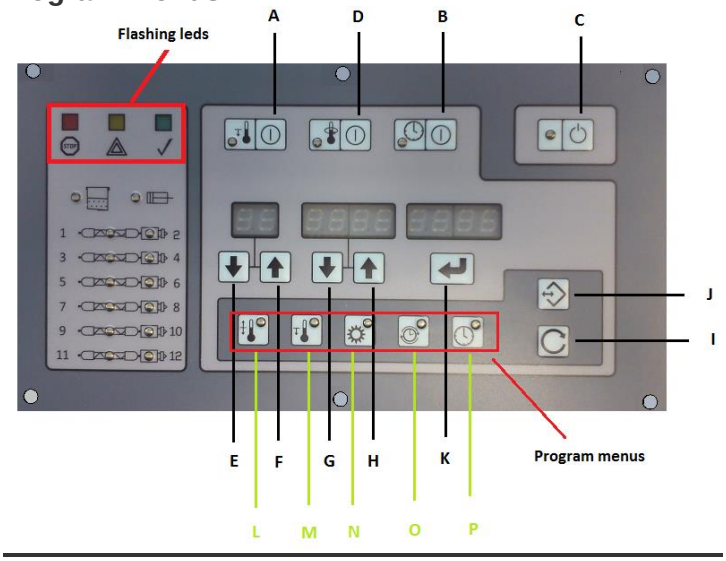
programming menu, and then we must confirm to fix the level access. If we don't confirm the access, then we lose the privilege when we go out of the programming menu. We could introduce both passwords (232, 123), in case of introduce 123, then we could go to programming menu to modify the parameter P1 to 2. (It isn't necessary to introduce the passwords with any order 232→123).

The navigation in the access password (P0) will permit to go 0 to 255 in any direction, growing or decreasing.
The parameter P0 will be free access but when we visualize it, always we see 000, independently of level access.
The parameter P1 will have limited the possible modifications depending on level access or password.

4.1.3.7 Program menus:



Temperature programme menu:

To pre-select the operating temperature for each hose and gun and the tank in a range between 30ºC and 240ºC (86-464ºF). Below 30ºC (86ºF) the device is permanently switched OFF.
LED on: The working temperature of the different devices is being programmed.

ENERGY SAVING programme menu:

To pre-select a % of the operating temperature for the tank, hose and guns.
Different percentages of the operating temperature can be selected for the tank, hoses and guns when the equipment is in ENERGY SAVING mode. Values between 50 and 80% can be selected.
LED on : The % values of the operating temperatures for the different devices (divided into 3 groups: tank, hoses, guns) are being programmed for adjustment in ENERGY SAVING.

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General operating parameters programme menu:

To enter operating parameters (optionally, with a password) such as temperature measurement unit (ºC or ºF), clearance delay time, maximum temperature, temperature deviations that cause alarms, enabled options, display of operating times, etc.
There is a parameter that automatically copies the value of the temperature selected for the tank on all the output channels that are enabled (channels that are not OFF).
LED on : The general operating parameters are being programmed.

Timer programme menu:

To enter automatic switch-on and switch-off times. Up to 2 on/off time groups can be programmed for each day of the week, and the switch-over to ON, OFF or ENERGY SAVING.
LED on : The timer on/off parameters are being programmed.

Time adjustment programme menu:

To enter the current day of the week and the time on the timer.

LED on : The hour and date are being set on the timer

4.1.4. Setting program menus:

To programme operating parameters, press the button on the control panel, and then press the button to select the required programme menu.

To end the process, press again.

In case of the equipment remains during 1 minute in the programming menu without press any button, the equipment log off the programming menu.

Programming operating temperatures:

To enter this programme, press button once. (led will light).
The two digits on the left show the code of the channel to be programmed. Select the channel by pressing the buttons under these digits.
The digits in the centre show the value of the programmed temperature. Use the keys under them to vary the temperature between 30 and 130ºC (85 and 266ºF).
When the minimum value is reached, the display will show OFF, which means that the channel is disabled.
By pressing the key, the operating temperature displayed is saved.
By pressing SCAN when the equipment is in t0, the system copies in all active channels the tank reference temperature.
The channels are identified by the following codes:

t0	Tank

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t1	OUTLET 1 hose
t2	OUTLET 1 gun
t3	OUTLET 2 hose
t4	OUTLET 2 gun
t5	OUTLET 3 hose
t6	OUTLET 3 gun
t7	OUTLET 4 hose
t8	OUTLET 4 gun
t9	OUTLET 5 hose
10	OUTLET 5 gun
11	OUTLET 6 hose
12	OUTLET 6 gun

The number of outputs depends on the equipment type. 4 is normal can be 6 with control card upgrade.

To end the process, press again.

Programming ENERGY SAVING:

To enter this programme, press button then button until (led is lit).

The two digits on the left show the code of the output to be programmed, which is selected by pressing the keys under them. 3 groups can be selected:

b0	Tank
b1	Hoses
b2	Guns

The digits in the centre show the % of the operating temperature that will be used as the adjustment value for ENERGY SAVING. The keys under these digits change the value between 50 and 80%.

Pressing the key, we will save the % of temperature displayed.

To end the process, press again.

Programming operating parameters:

To enter this programme, press button then button until led is lit.

The two digits on the left show the code of the parameter to be programmed, which is selected by pressing the keys under these digits.

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The digits in the centre, and also the digits on the right, will show the value of the parameter. Press the  keys under these digits to alter the values within the ranges specified in Table 1.

Pressing the  key, the operating parameter displayed is saved.

To end the process, press  again.

Table 1. General parameter codes (standard default values in brackets):

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	Nombre	*Descripción*
P0	Enter password (000)	To enter the access code in order to change the level access. [000,255]
P1	Level access (0).	Shape the level access to the equipment. [0,1,2]
P2	Measurement unit (0)	Selects the measurement unit. 0 = ºC and 1 = ºF.
P3	Clearance delay (15)	Delay in minutes for switching on the pump and giving clearance after pre-heating. Values between 0 and 60 minutes.
P4	Maximum temperature (240 ºC / 464 ºF).	This temperature must be above preset operating temperature. [80, 240ºC; 176, 464 ºF].
P5	Tank alarm deviation (5 ºC /9 ºF).	Any sensor that reaches a temperature higher or lower than operating temperature +/- deviation, will switch on the temperature warning lamp and the relevant external alarm.[1, 30ºC; 2, 54ºF].
P6	Hose alarm deviation (5 ºC /9 ºF).	Any sensor that reaches a temperature higher or lower than operating temperature +/- deviation will turn on the temperature warning lamp and the relevant external alarm. [1, 30ºC; 2, 54ºF].
P7	Gun alarm deviation (5 ºC /9 ºF).	Any sensor that reaches a temperature higher or lower than operating temperature +/- deviation will turn on the temperature warning lamp and the relevant external alarm. [1, 30ºC; 2, 54ºF].
P8	Time after last signal (0) to go into ENERGY SAVING	If the selected time (between 1 and 225 minutes) is exceeded with no shot pulses, the equipment will go into ENERGY SAVING mode. A 0 value switches off this function. **(I/O CARD REQUIRED)**
P9	Time counter	Displays the time (hours) that the equipment has been operating
P10	Time between filter change (2000)	In normal conditions, the filter must be changed every 2000 working hours. Depending on the adhesive type, this parameter can be set within this range: [0, 2000].
P11	**Enable/Disable** hose-gun channel 1 (0)	It disables the channel 1, P11=1. [0,1]
P12	**Enable/Disable** hose-gun channel 2 (0)	It disables the channel 2 P12=1. [0,1]
P13	**Enable/Disable** hose-gun channel 3 (0)	It disables the channel 3 P13=1. [0,1]
P14	**Enable/Disable** hose-gun channel 4 (0)	It disables the channel 4 P14=1. [0,1]
P15	**Enable/Disable** hose-gun channel 5 (0)	It disables the channel 5 P15=1. [0,1] **(ONLY IN 6 EXITS EQUIPMENTS)**
P16	**Enable/Disable** hose-gun channel 6 (0)	It disables the channel 6 P16=1. [0,1] **(ONLY IN 6 EXITS EQUIPMENTS)**
P17	Node number (0)	It identify the node number for communications. (4exits and 6exits)

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	Nombre	*Descripción*
P18	I/O Con-1 configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P19	I/O Con-2 configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P20	I/O Con-3 configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P21	I/O Con-1D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P22	I/O Con-2D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P23	I/O Con-3D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P24	I/O Con-4D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P25	I/O Con-5D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P26	I/O Con-6D configurable parameter (0 – Disable)	I/O states configurable functions. [0, 9]
P27	RS-485 communications section (0)	External communications mode selection parameter.. (0-Disable) **(I/O CARD REQUIRED, NO ACCESS BY COMs.)**

1. P4 parameter: Maximum temperature.

If this value is modified and after that it is being below of the programmed temperature of any channel then the channel temperatures will be the same as P4 value.

2. P16 to P26 parameters: I/O configurable parameters.

It is possible to configure the I/O card contacts functions for different functions:

Function	Number
Disabled	0
Application	1
Star/stop	2
Energy savings	3
Hose-gun channel 1	4
Hose-gun channel 2	5
Hose-gun channel 3	6
Hose-gun channel 4	7
Hose-gun channel 5	8

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Hose-gun channel 6 9

- ***Disabled*:**

With this function, we disable this parameter.

- ***Application:***

If there is a “0” (without potential, open contact) the input which has been assigned the application function during more time that appears in P8 parameter (time in minutes) and moreover it´s allowed the pump to work , then the unit goes to energy saving.

If it is selected an “1” (contact is closed) before the P8 parameter time is finished, then the timer is reset and the value of P8 is counted again.

Having the unit in energy saving when an “1” is selected (contact is closed) at the application function assigned input then the unit goes to normal working.

If there is an “1” at any assigned input the unit performance is normal and the timer doesn’t count with the P8.

If P8=0 then the application function is also disabled because the timer is disabled.

- ***Energy savings:***

While it is a “0” (circuit is open) at the input of the energy saving function the unit keeps in standard working.

When there is an “1” (contact is closed) the unit goes to energy saving. In order to keep the energy saving function on it is necessary to keep that “1” (contact is closed) at t he input.

Note:

While we have “0” (open circuit) the equipment will work in normal mode. If we put a “1” (closed circuit) then the equipment will work in energy saving mode.

In case that both application and energy saving functions are configured, the unit gives priority to the “Energy Saving” function but it is allowed to the aplication function to work normaly if there is a “0” in the “Energy Saving” function, in other words, when the unit doesn´t keep in standard working.

- ***Start/Stop:***

If it is a “0” (circuit is open) at the *Start/Stop* function input the unit will keep on working (*Start* function).

If there is an “1”(contact is closed) the unit will turn off.

- ***Hose-gun channel:***

If there is a “0” (circuit is open) at the hose-gun function input then the channel is enabled.

If there is a “1” (contact is closed) at the hose-gun function input then the channel is disabled.

3. P27 parameter: communications modes selection.

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This parameter is used to know if external communication are going to be used.

If P27= 0 it means that external communications by PROFIBUS or MODBUS protocols or by I/O States are not going to be used.

If P27= 1 then the MODBUSS communications and the I/O States are activated.

Modbus communications needs specific I/O card for communication mode.

If communications of any of the protocols and the I/O are enabled could be orders conflicts due to the wired communications priority (I/O States) with regards to MODBUS

Connection description: Hardware Tarjeta I/O:

Connector DB-9:

DB-9		
Pins		Func
1		A+
2		B-
---		---

The RS-485 communications Works by means of a specific component wich works a middleman between the microcontroles and the DB-9 male

The voltage range of communications and electronic components operation is 5V.

Programming the timer:

To enter this programme, press button, then button until the icon is indicated.

The two digits on the left show the code that represents the day of the week (with values from 1 to 7). The digits in the centre show the code of the parameter to be programmed, which is selected by the E and F keys ( )

The digits on the right show the value of the parameter. Keys G and H ( ) alter these values, within the ranges specified in Table 2.

By pressing the , the information on display is saved.

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Table 2. Codes of the timer switch on/off parameters.

d1	**01**	**XX**	Switch-on 1 time (hour)(Monday)
d1	**02**	**XX**	Switch-on 1 time (minute) (Monday)
d1	**03**	**XX**	Type of switch-on 1 (Monday)
d1	**04**	**XX**	Switch-off 1 time (hour) (Monday)
d1	**05**	**XX**	Switch-off 1 time (minute) (Monday)
d1	**06**	**XX**	Type of switch-off 1 (Monday)
d1	**07**	**XX**	Switch-on 2 time (hour) (Monday)
d1	**08**	**XX**	Switch-on 2 time (minute) (Monday)
d1	**09**	**XX**	Type of switch-on 2 (Monday)
d1	**10**	**XX**	Switch-off 2 time (hour) (Monday)
d1	**11**	**XX**	Switch-off time 2 (minute) (Monday)
d1	**12**	**XX**	Type of switch-off 2 (Monday)

This same table is valid for every day of the week, ie, 12 settings for each day.
The TYPE parameter has the following functions:
For switch-on:

TYPE=0	Switch-on selection not active
TYPE=1	The equipment goes from its present status to normal OPERATION
TYPE=2	The equipment goes from OFF to energy saving.

For switch-off:

TYPE=0	Switch-off selection not active
TYPE=1	The equipment goes from its present status to OFF
TYPE=2	The equipment goes from its present status to LOW MAINT.

For easy programming, you can copy Monday parameters by pressing the  key (D) when the first parameter of the following days is shown.

To end the process, press  again.

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Programming the clock

To enter this programme, press button, then button until the icon is indicated.
The two digits on the left show the code of the data to be programmed, which is selected by pressing the keys under these digits.
The digits in the centre show the present day and time according to the timer. These values are altered by pressing the keys under these digits.

By pressing the key, we can save this information.
Identification codes:

r1	Day of the week (1[Monday] to 7[Sunday])
r2	Present time (hour) (0 to 23)
r3	Present time (minute) (0 to 59)

To end the process, press again.

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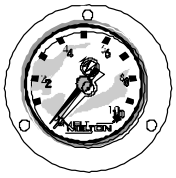
4.2. ADJUSTING THE OUTPUT PRESSURE:

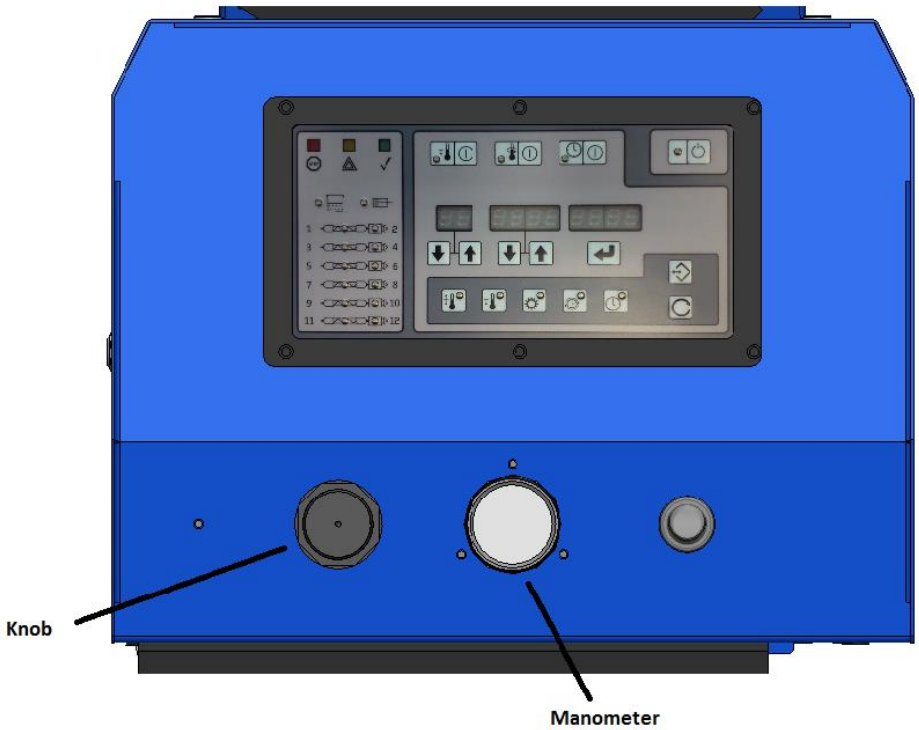
The adhesive output pressure is controlled by the pressure regulator and electrovalve unit. It is located at the front of the unit.

Pressure gauge:

This is the element that indicates pressure, in bar and psi, at which the pneumatic pump and the compensating valve are operating.



Pull the knob out to set and push it down to lock.
Set the pump pressure to 40 Psi (2.5 bar)
The pump will operate and pressurize the system.



This pressure is a starting point setting. You may need to change the pressure setting, depending on application.

The ratio between pneumatic and hydraulic pressure is 1:14. This means that, for each pneumatic bar indicated on the pressure gauge, there will be 14 hydraulic bar at the pump.

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4.3. MELTON-RECHNER LEVEL SENSOR:

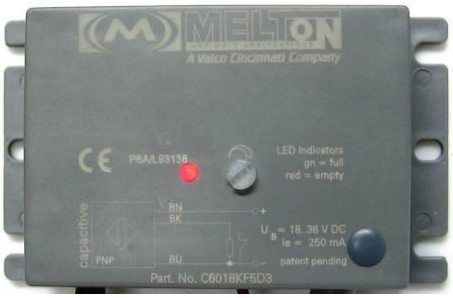
This is a capacitive level sensor.

It detects the level of adhesive. There is a three-second disconnect delay when going from a low to a high level,

Visual Indications:

Green Light → Full; Output not activated

Red-Yellow blinking light → Full; Output activated, delay at disconnect



Red Light → Empty; Output activated

- **Green Light: Positive Detection.**

The sensor interprets that the tank is full. It does not activate the output.

- **Red Light: Negative Detection.**

The sensor interprets that the tank is not full and it does activate the output

- **Red/Yellow Intermittent Light: Positive Detection, Disconnect Delay.**

After switching from a negative detection to a positive detection, the sensor maintains the feeder load signal for three seconds. This delay does not apply to the initial transition; in other words, when the probe is turned on.

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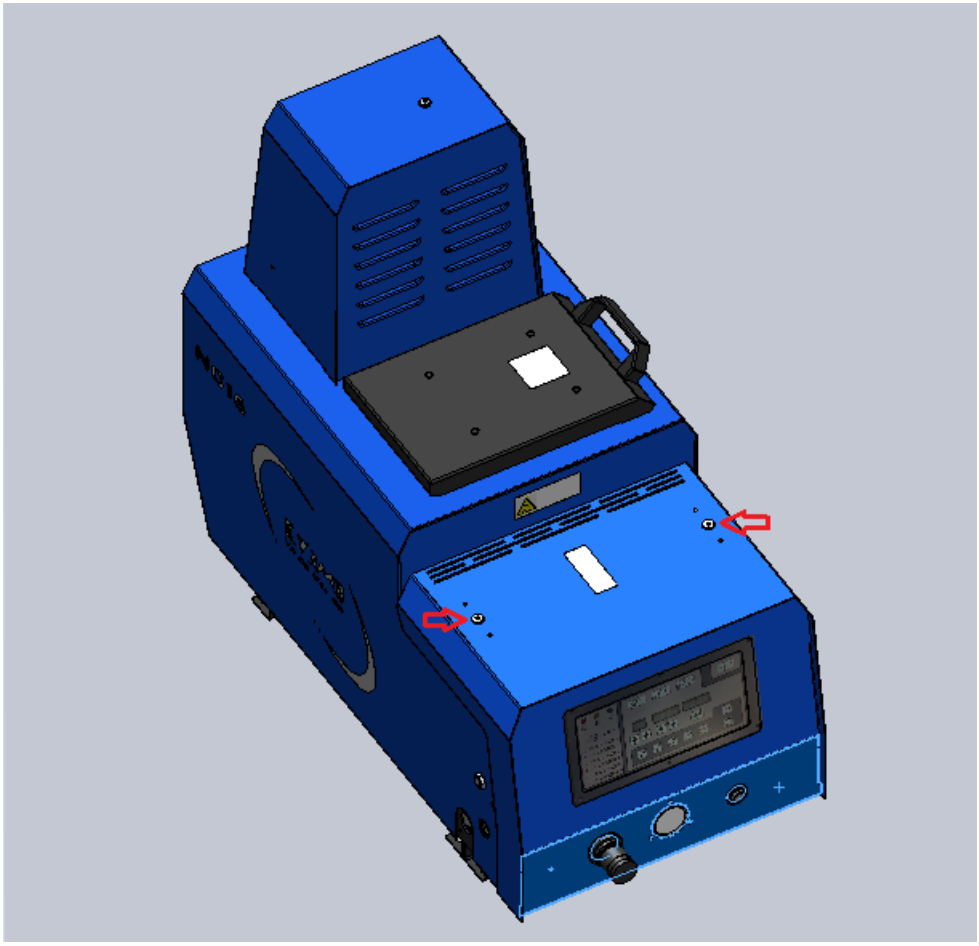
NOTE: As a last resort, if you need a longer delay it could be increased by an external timer.

PRECAUTIONS:

- The high-level detector must be situated at the level where the adhesive covers the tip of the probe slightly. If the probe is re-calibrated to the level with the probe fully covered, there may be a risk of adhesive overflow and high air filter wear due to adhesive splash during the filling process.
- It is necessary to secure the reference conductor connection to the ground of the unit (probe red cable). Its disconnection could cause that the system becomes unstable.

4.4. LEVEL SENSOR SETUP:



To adjust the sensor, follow the procedure:

Turn off and turn on the unit.

Find the electrical box of the probe into the unit.

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Drain the adhesive in the tank until this one be empty.

Remove the screw of the potentiometer.

IF THE LIGHT IS RED (NEGATIVE DETECTION):

- Turn the screw clockwise just until the light changes to RED-YELLOW (flashing). Observe that after three seconds of flashing, the light is green.
- After that, turn the screw 2 turns counterclockwise.

IF THE LIGHT IS GREEN (POSITIVE DETECTION):

- Turn the screw counterclockwise just until the light changes to red.
- Now, turn carefully the screw clockwise just until the light changes to RED-YELLOW (flashing). Observe that after three seconds of flashing, the light is green.
- After that, turn the screw 2 turns counterclockwise.

Assembly the unit and test the working.

In order for the level sensor to be calibrated properly, it must be done with the tank completely empty, or with the least amount of adhesive possible.

For more information on the level sensor, call our toll-free assistance number.

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CHAPTER 5
OPERATION

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Warning: The equipment should be used only by qualified personnel who have understood the processes to be performed and are familiar with safety measures.

5.1. INTRODUCTION:

This chapter instructions for operating the equipment are explained.

Before verify that the operator is properly protected and all safety measures are followed, providing all equipment safety measures in perfect condition.

5.2. START UP:

1º Press the main switch.

2º Check that the set of equipment are appropriate for the desired operation, adjust if otherwise.

3º When the equipment is at the set temperature and no alarm activated relay service lights.

4º Permits the main machine takes into if they are both connected. The system has two terminals for external connections.

5º Can now start the application.

The equipment does not work, if be attached to a main machine until you have the required permissions.

These terminals are shorted factory.

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FILL THE TANK:

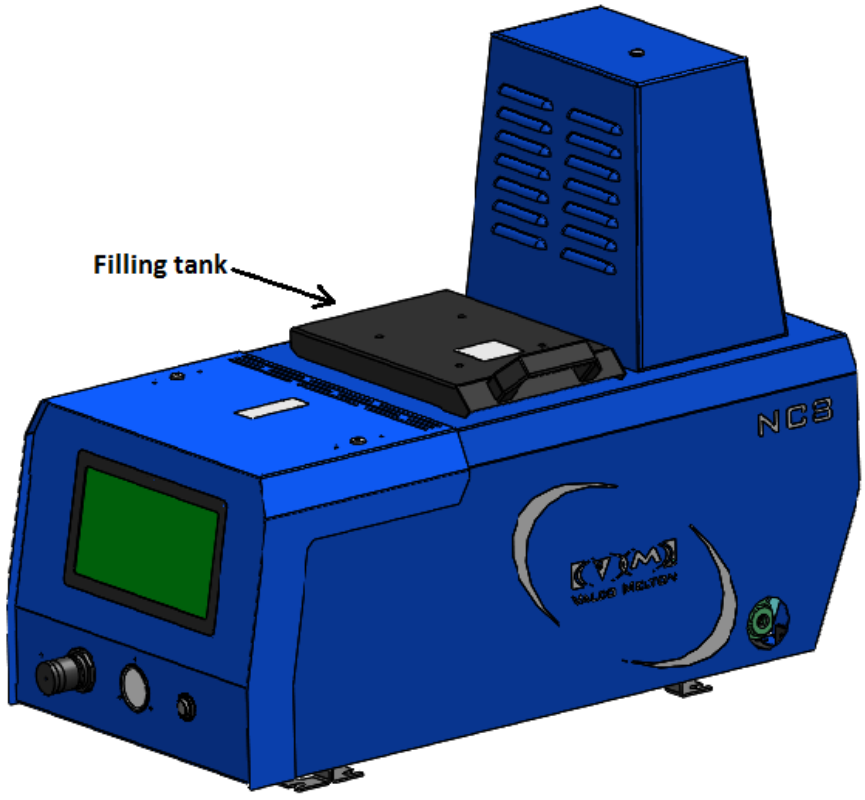
Before filling the tank please use goggles, gloves and long sleeves to avoid burns from splashing hot adhesive.

- **Standard models (Without Vacuum Feeding):**


1° Make sure the tank is clean and free of foreign particles.

2° Fill the tank heated by the hot melt material up to 10mm below the rim of the tank.

3° Close the lid of the tank immediately after filling.

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➢ **Models with Vacuum Feeding:**

1. Make sure that the tank is clean and free of foreign particles.
2. In this case, the equipment is fed automatically by the installed vacuum feeder. The sensors detect when the tank needs adhesive, as well as when it is no longer needed. This way, the person handling the equipment does not have to worry about anything except making sure the vacuum feeder is always supplied with adhesive, in the container used to hold it. Said container must be placed near the equipment so the tubes comprising the vacuum feeder are not pulled, which might cause damage.

Warning: When you wish to check the tank adhesive level, you can do so while the equipment is loading, without any problem, as the micro (sensor installed on the cover allows the equipment to detect when the cover is opened and stops the vacuum feeding. Once the cover is closed, it will begin loading again automatically.

Air tube

Vibrator

Note: Never operate the applicator if the tank is empty. If the quantity of hot-melt material is very small, the adhesive may degrade, 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.

Emptying the Tank:

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

1. Warm the equipment to the working temperature.
2. Reduce the air pressure to zero.
3. Eliminate system pressure by releasing the manual guns or opening the bleed valve.
4. Place an appropriate container under the manifold to collect the adhesive.
5. Unscrew the purging valve with a screw driver.
6. Increase the pressure gradually until adhesive flows through the purging valve and the manifold, and the tank empties.

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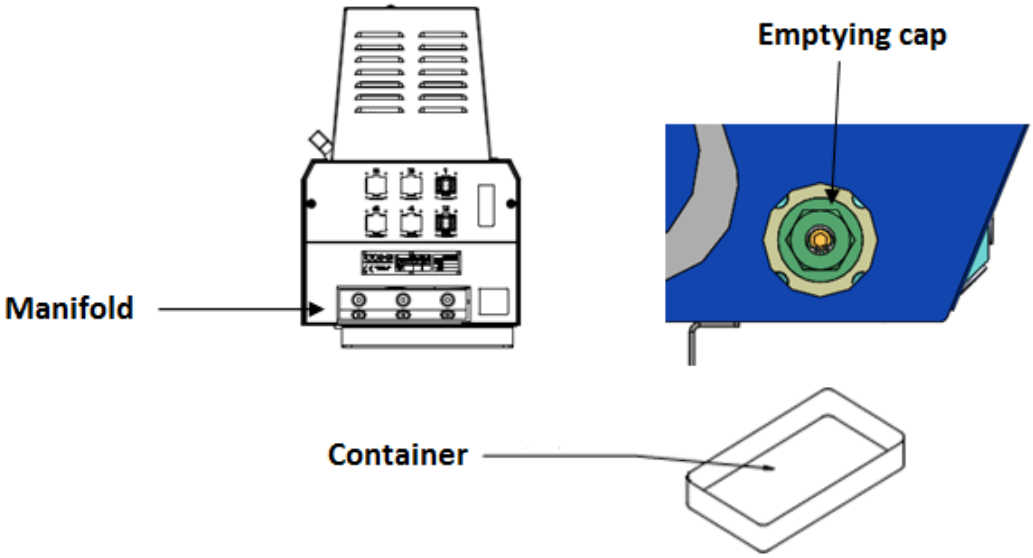
7. Changing the filter and seals on the dismantled parts is recommended once the tank is empty.



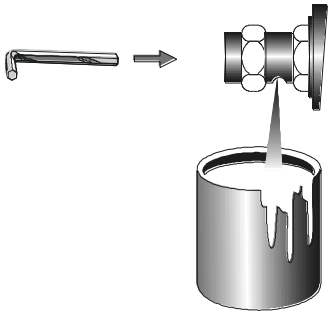
Bleed Process:

The bleed process is done to sweep away small crystallisations that may be produced in the filter, and to depressurize the system.

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

Tip:
Bleed the equipment once a week, or every 40 hours of operation.

1. To purge the filter, the applicator must be at the operating temperature.
2. Reduce the air pressure of the applicator to “0”.
3. Place a container below the equipment to collect the adhesive from the manifold.
4. Open the bleed valve with a screw driver.



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5. Increase the air pressure until the adhesive flows through the bleed hole and leaves the filter free of any contaminating particles.

6. Close the bleed valve with a screw driver.

7. Return the pressure to the appropriate working pressure.

5.3 STOPS:

There are two cases:

Pump stop:

If you wish to stop pumping, you must turn the pressure regulator to 0.

The temperature control will maintain the equipment temperature.

If the stop is to be for an extended period, activating the Setback function is recommended. (See Section 4, 4.18 and Section 5, 5.5)

Total stop:

To power down the equipment, switch the unit off.

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CHAPTER 6
MAINTENANCE

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

6.1. INTRODUCTION:

This chapter contains the procedures involved in the maintenance of the EC equipment. These maintenance procedures guarantee safe operation and increase machine life. Before starting a maintenance operation, read chapter 1. “Safety” carefully.

General recommendations for proper maintenance:

- Keep the tank as full of adhesive as possible. This will reduce the formation of charred adhesive 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 charred adhesive are the main causes of nozzle obstruction).
- Use cheesecloth to remove material leaking from the seals and other connectors when the machine is hot, but not in operation.
- Empty and clean the system completely when there are frequent obstructions, due to dirt and char.

Make sure that you are properly protected and follow all pertinent safety measures:

1. Switch off the air at the mains.
2. Switch off the main switch.
3. Lock and tag out the main switch.
4. Make sure power is off.
5. Follow all applicable safety standards.

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6.2. MAINTENANCE RECOMMENDATIONS:

The following table shows the frequency with which maintenance operations should be performed:

Frequency	Maintenance
Weekly (40 hours)	Clean the outer surface of the equipment. Use a liquid cleaner, following the instructions for the adhesive being used.
	Inspect all the electric, pneumatic and hydraulic connections. Replace or repair when necessary
	Bleed the drain valve.
6 Months (2000 hours)	Change the air regulator filter.
	Clean the tank filter.

Operation frequency depends on the type of adhesive used and the environmental conditions where the equipment is placed.

6.3. MAINTENANCE PROCESSES:

6.3.1. Cleaning the equipment

Vacuum the dust or glue remnants, or remove them with a soft cloth, especially from the manifold and bleed valves.

Clean the control panel periodically with a soft cloth. Do not use solvents, which could damage the control panel.

Use a soft cloth to remove dust and glue remnants from the cylinder, valve and exhaust mufflers.

If you use a cleaning agent, make sure that it is compatible with the adhesive being employed.

When in doubt, contact the adhesive manufacturer.

6.3.2. Bleeding the pressure regulator air filter:

Bleed the air-regulation unit by pushing the lower button on the filter.

Change the regulator filter as necessary, depending on the contaminants that accumulate in the pneumatic system.

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6.3.3 Changing Adhesive

To replace one adhesive with another, empty the system (See 5.2 "Emptying the Tank").

Emptying the system is important when changing the adhesive. Not doing so may cause equipment damage.

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CHAPTER 7
TROUBLESHOOTING THE EQUIPMENT

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

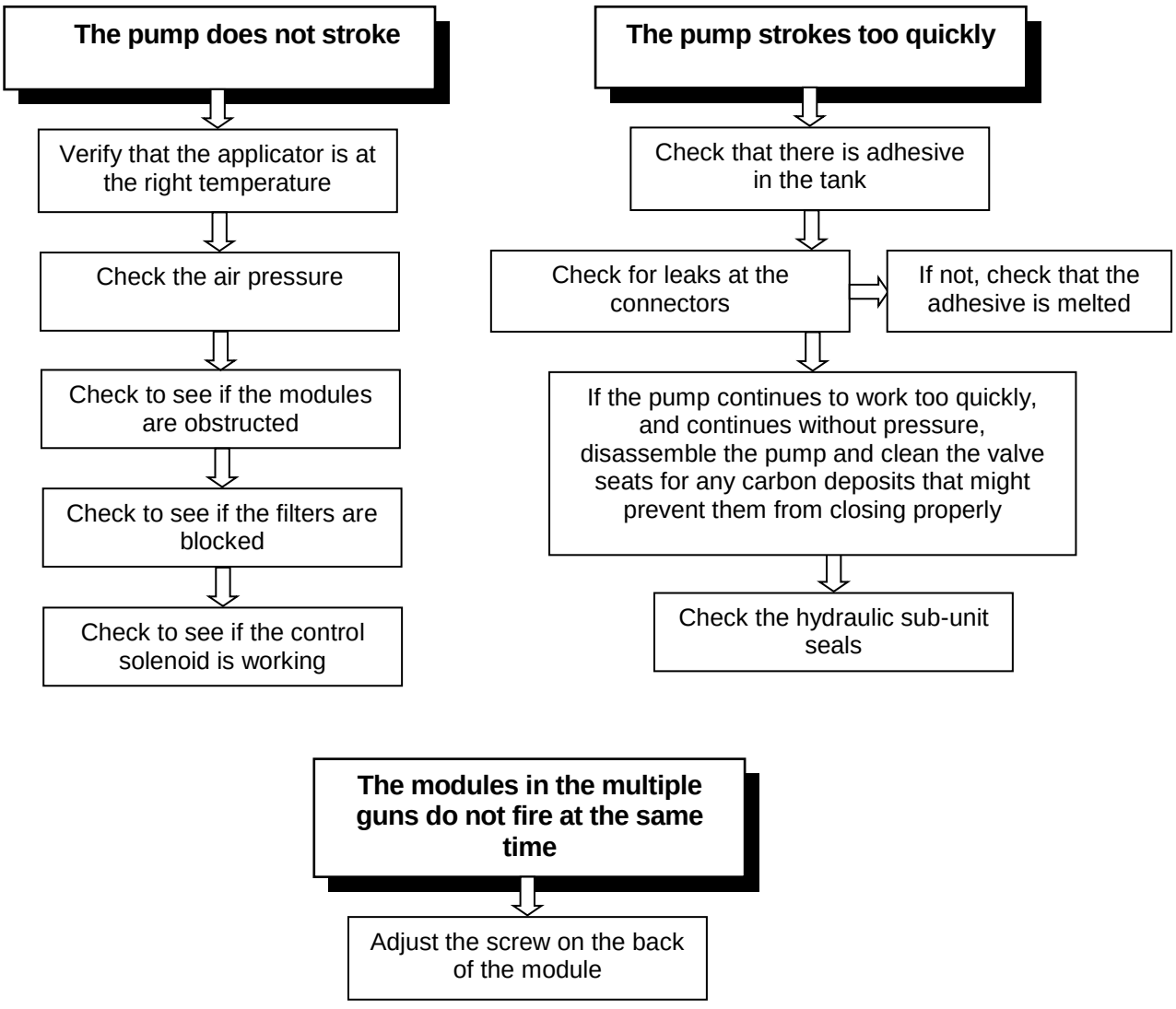
7.1. INTRODUCTION:

This chapter refers to the most common equipment faults.

Problems may occur when glue flow is reduced or stopped, or when the alert system signals a fault. Many problems can be solved 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:



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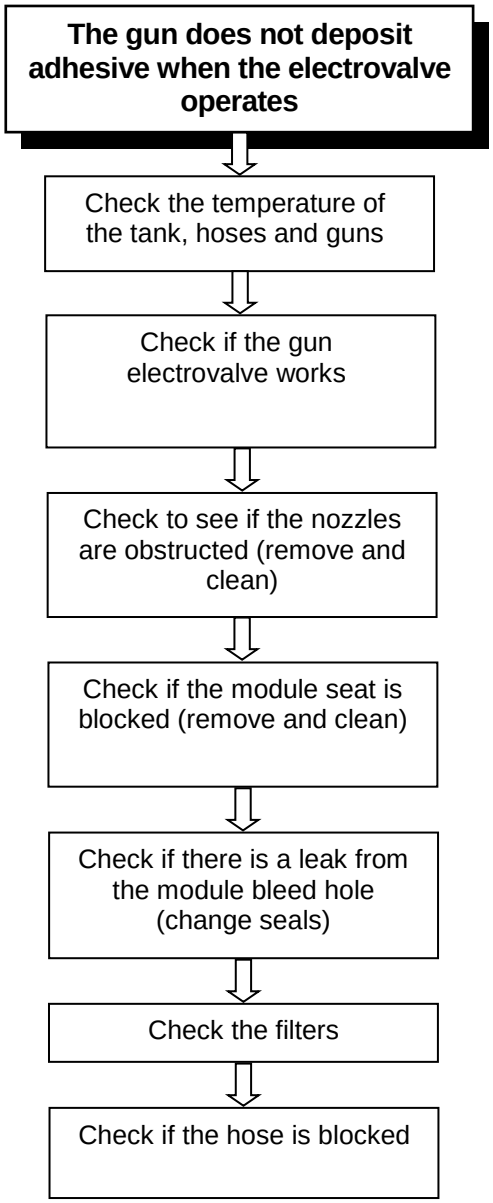

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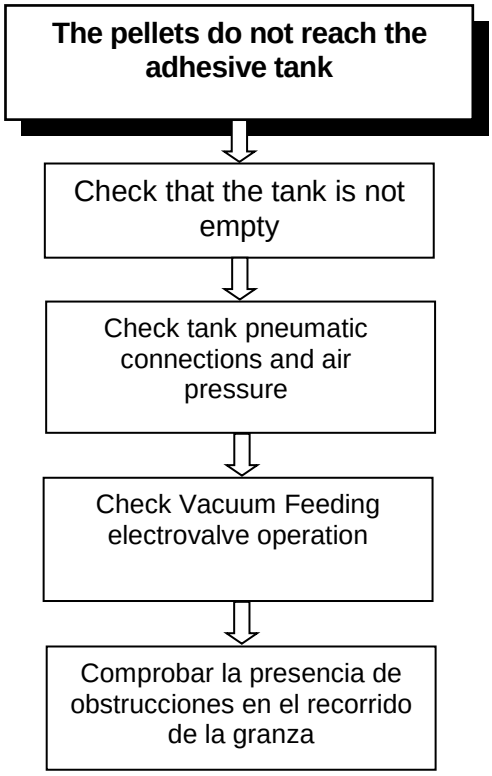

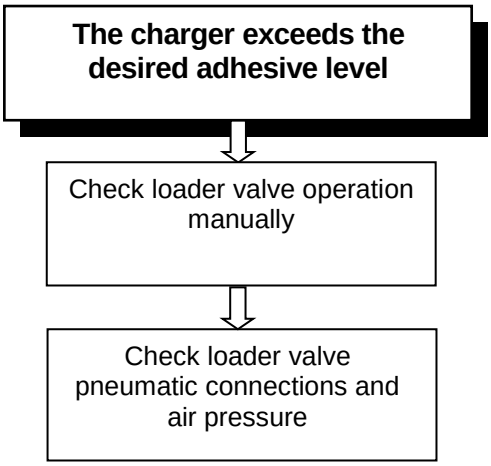

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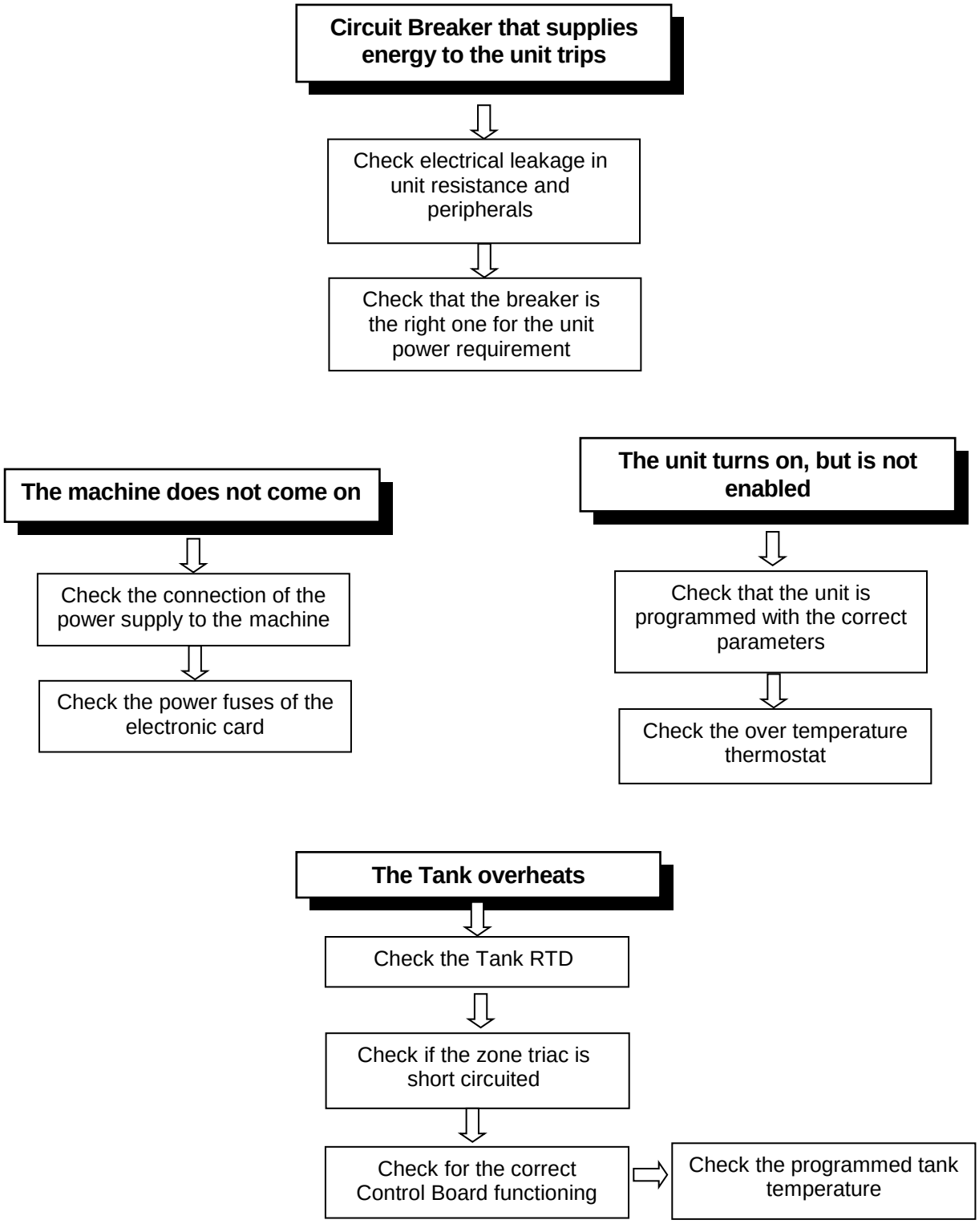
7.3. ELÉCTRICAL FAULTS:



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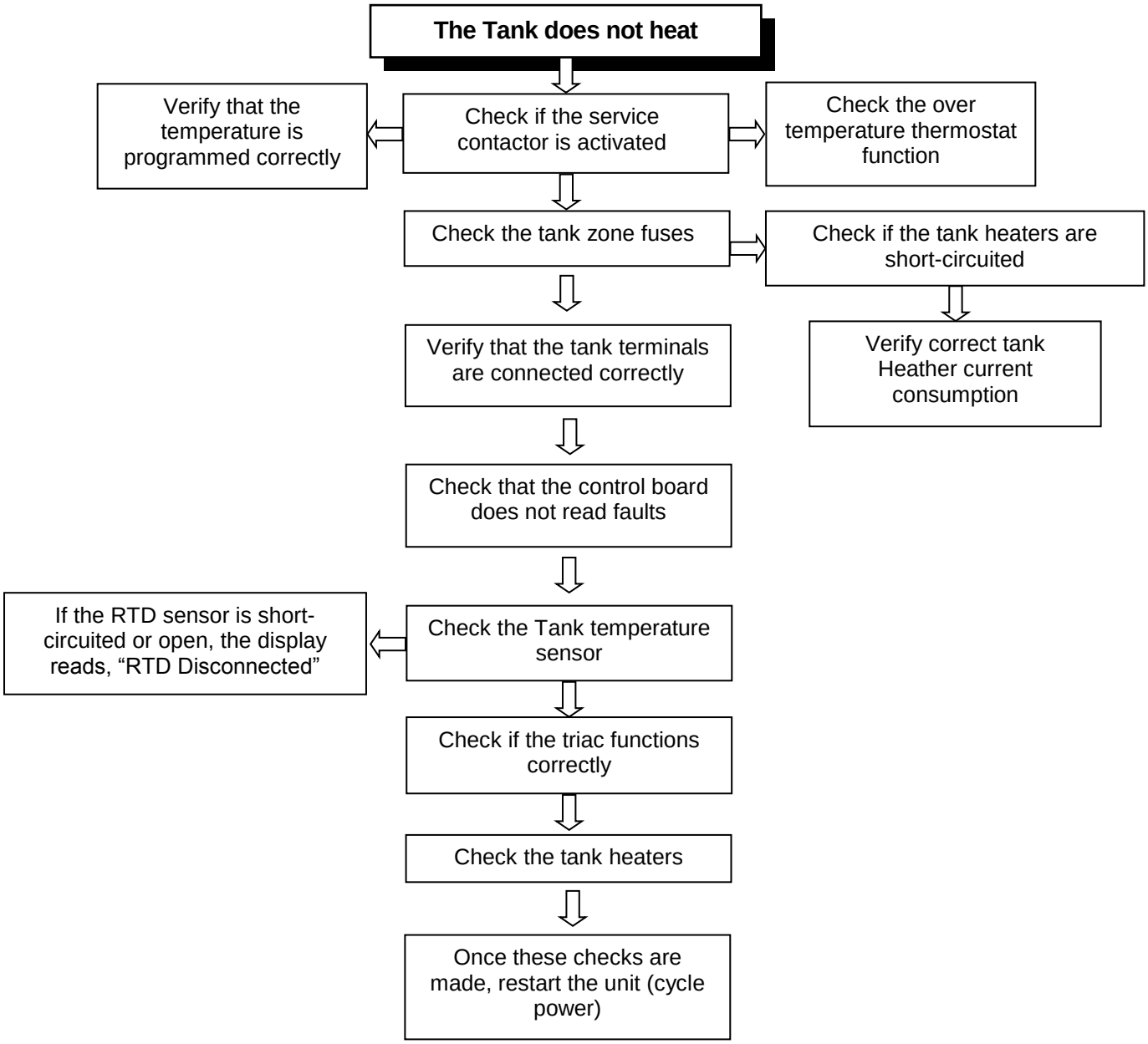

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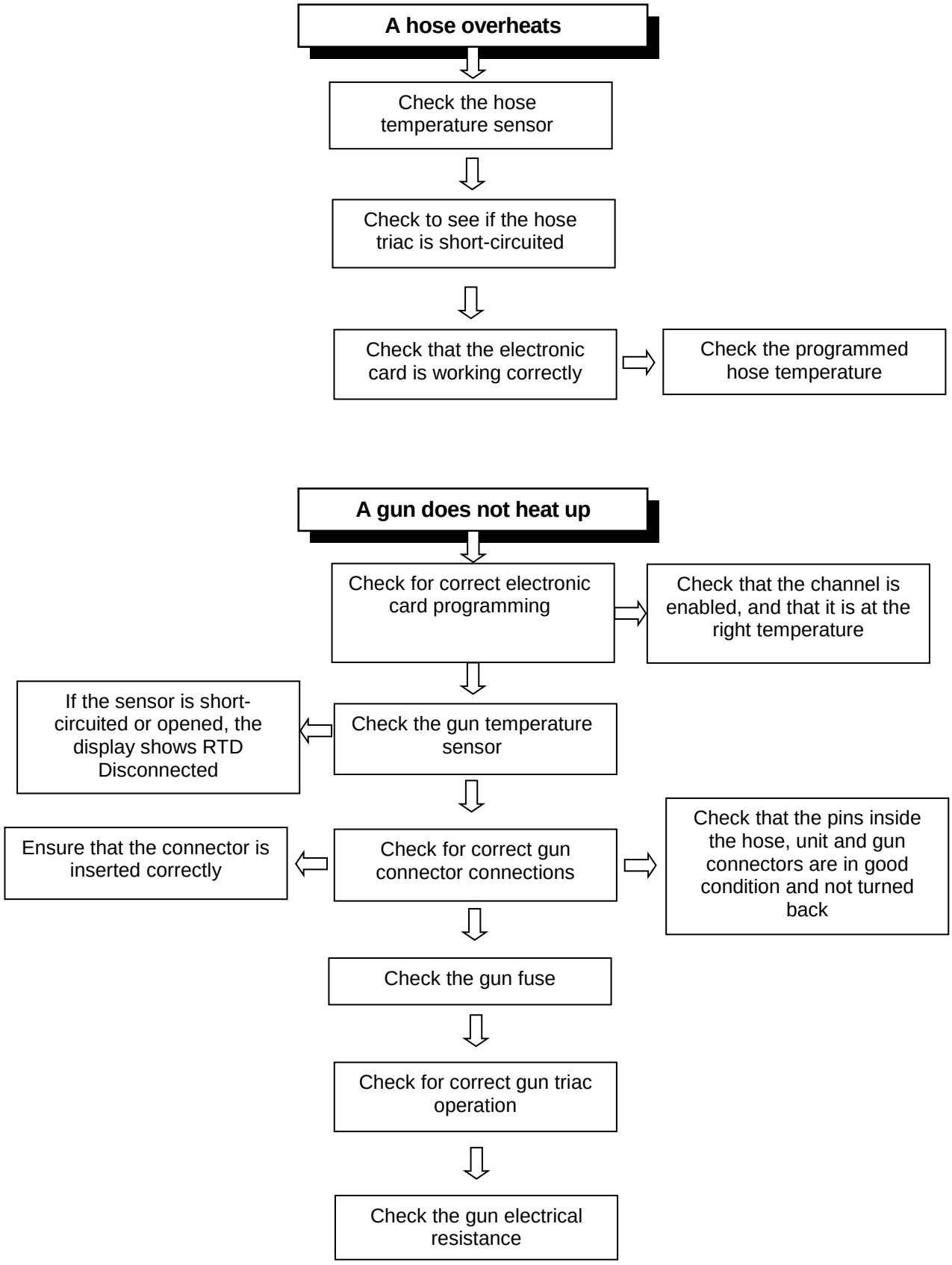

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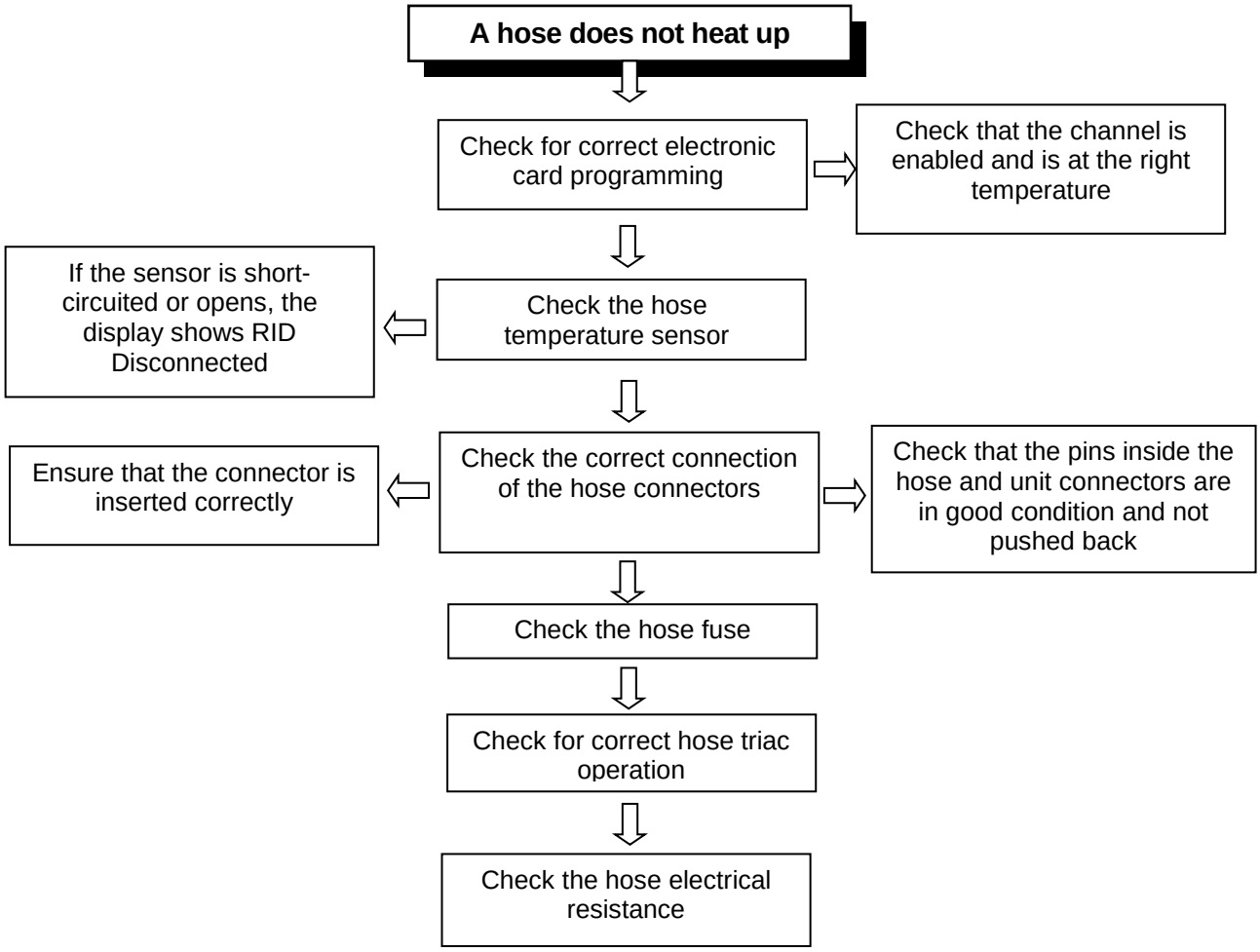

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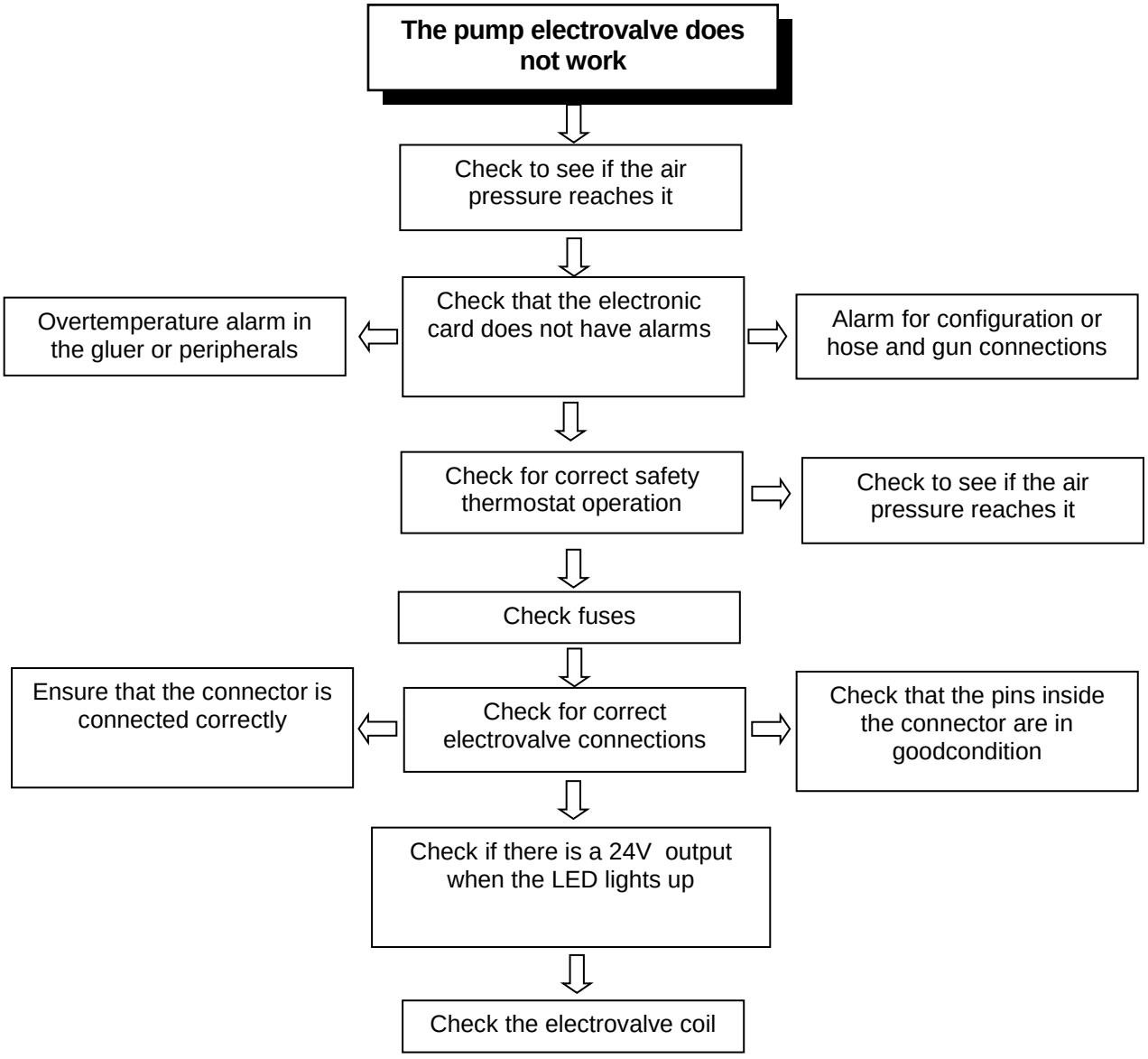

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The unit does not switch on

Check the equipment power connection

Check the fuse cabinet

The charger exceeds the desired adhesive level

Check that the probe ground wire is attached to the unit

Check that the charger timer settings are correct. Consult your ValcoMelton representative.

The charger does not fill the tank at the desired level

Check the air hoses and the correct pressure in the charger

Check that the probe ground is linked to the unit

Check that the charger timer settings are correct. Consult your ValcoMelton representative.

Check that the alarm timer settings are correct. Consult your ValcoMelton representative.

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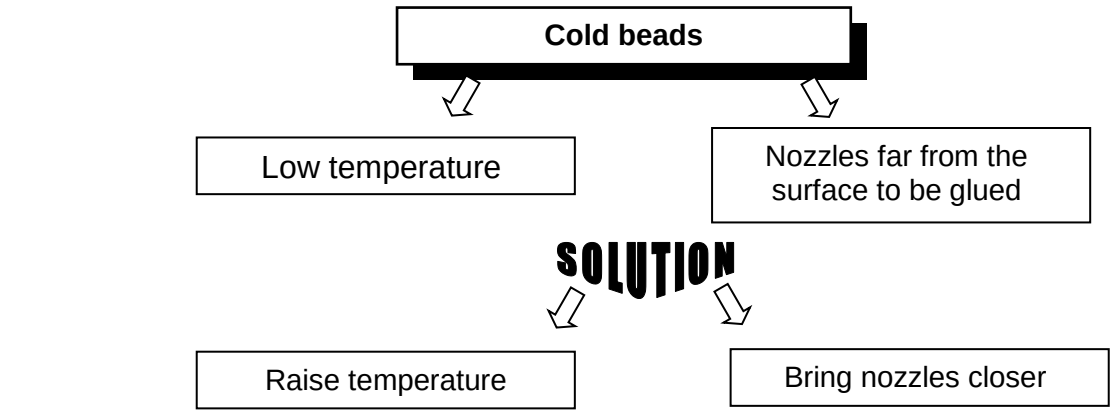
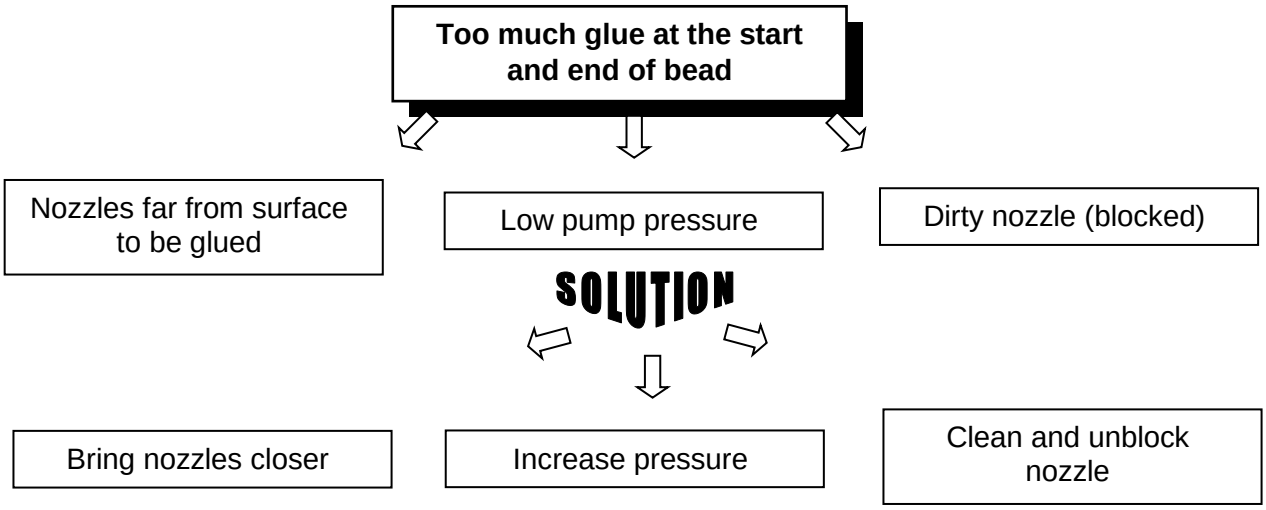
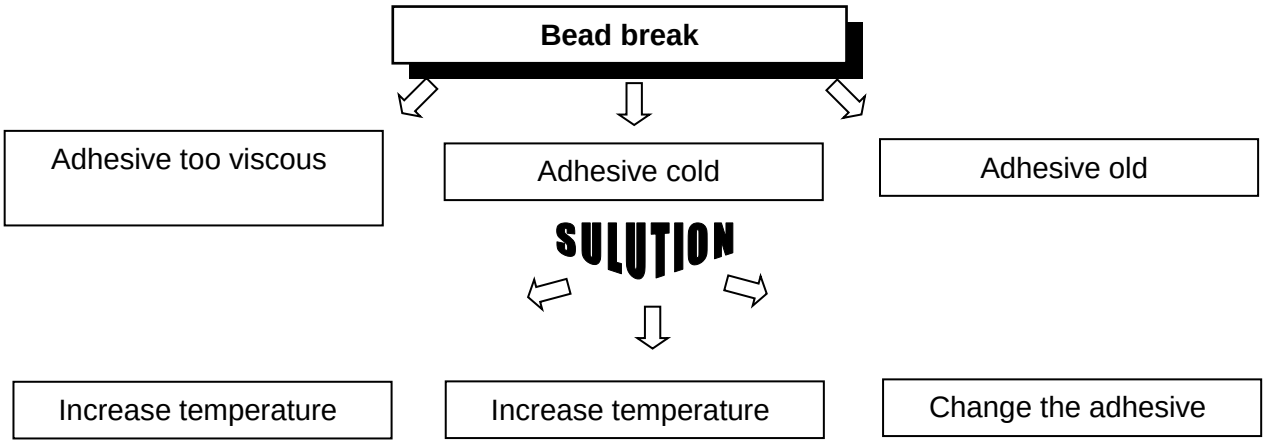
7.4. ADHESIVE APPLICATION PROBLEMS:







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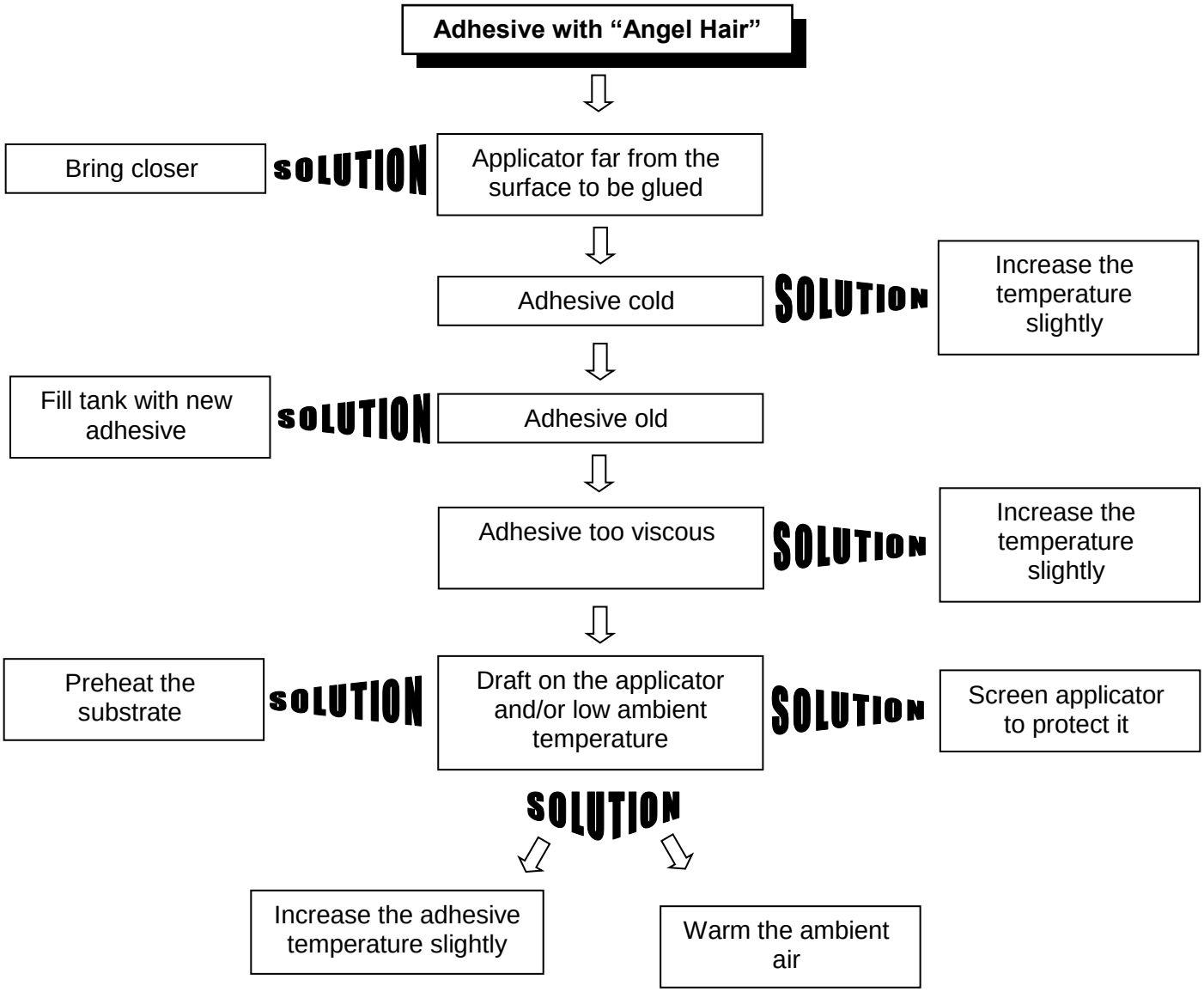

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Drops of adhesive forming on the applicator nozzle

- Hole blocked and/or seat worn or dirty
- Incorrect adjustment
- Incorrect air pressure to shut-off valves

SOLUTION

- Clean and/or replace dirty and/or worn parts
- Adjust the stroke opening
- Adjust air pressure

Frequent nozzle obstructions

- Rinse the system

SOLUTION

- Increase in solids

SOLUTION

- Clean filters

SOLUTION

- Change adhesive type
- Reduce temperature

Too much adhesive flow

- Excessive pump pressure
- Valve stroke opening too large
- Nozzle outlet too large

SOLUTIONS

- Reduce pump pressure
- Close by twisting several times
- Change to a smaller nozzle

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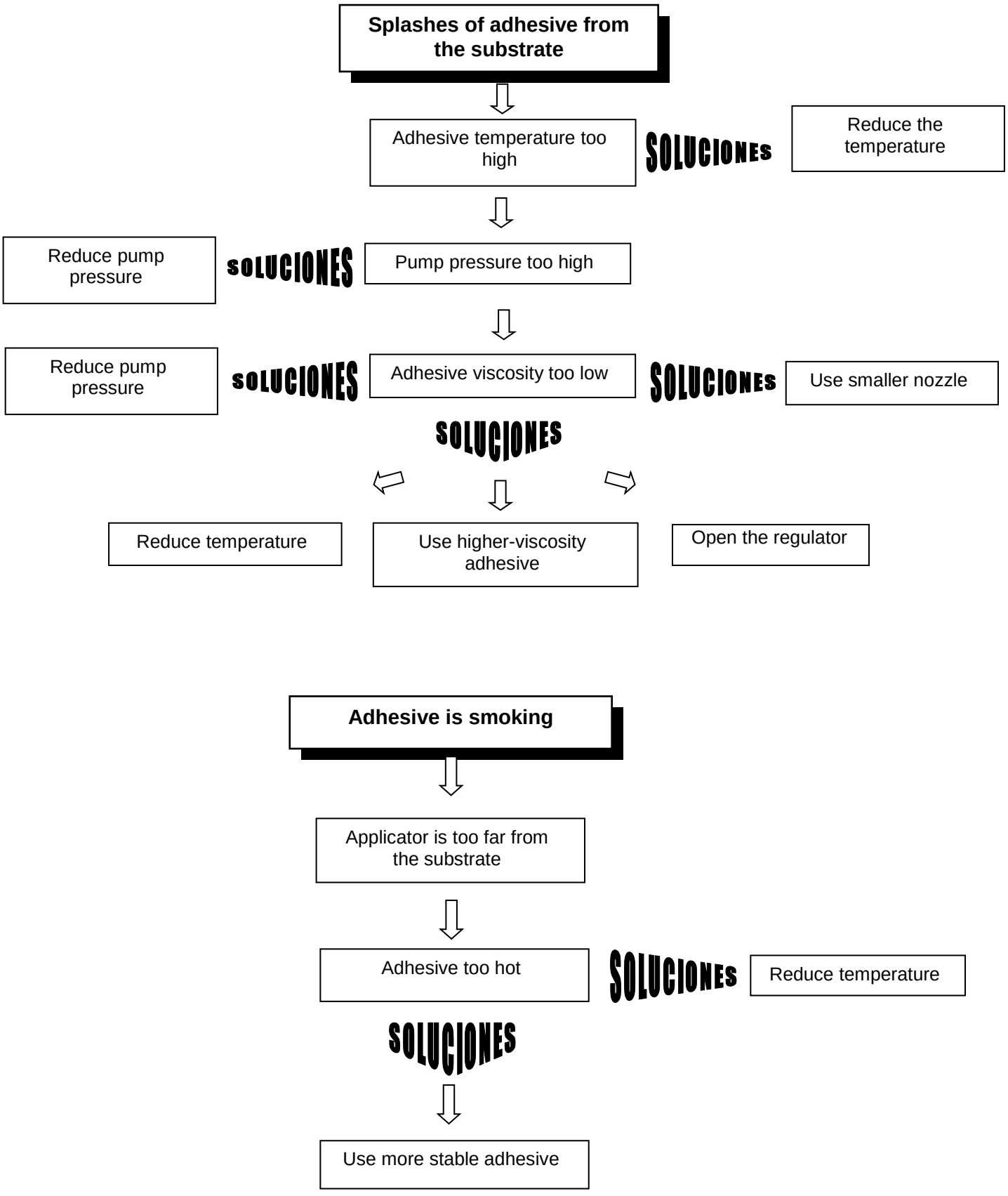

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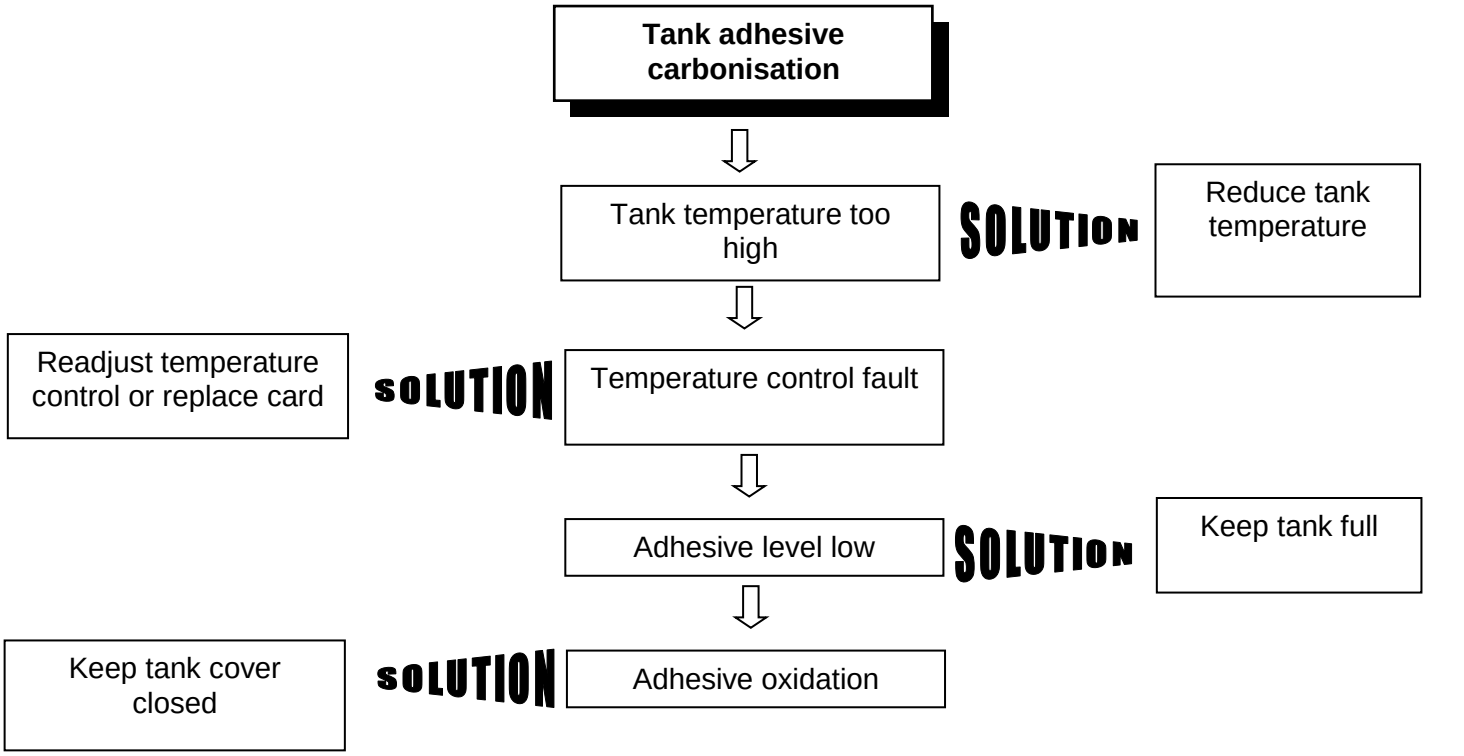

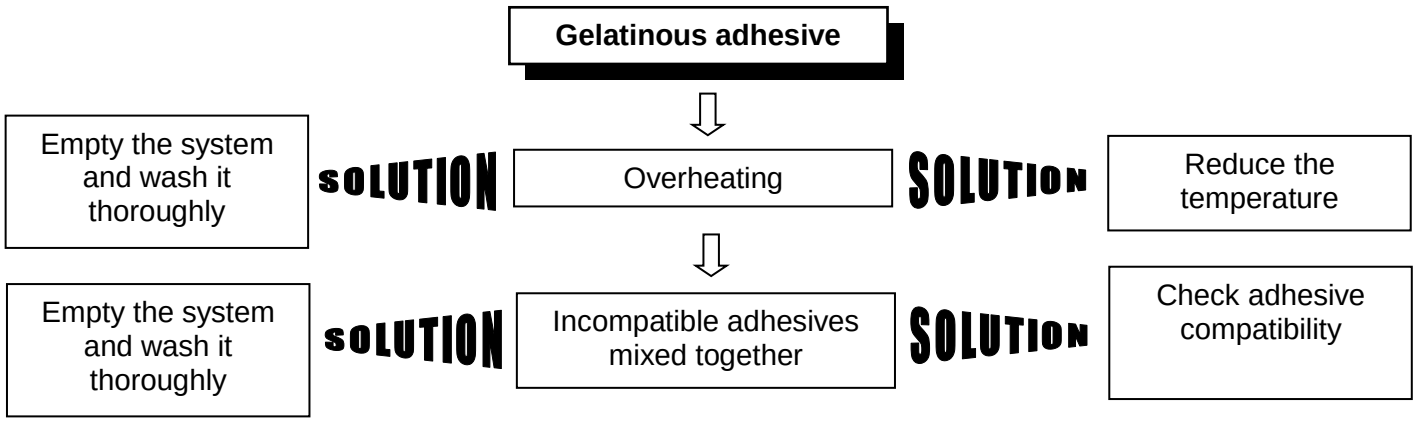

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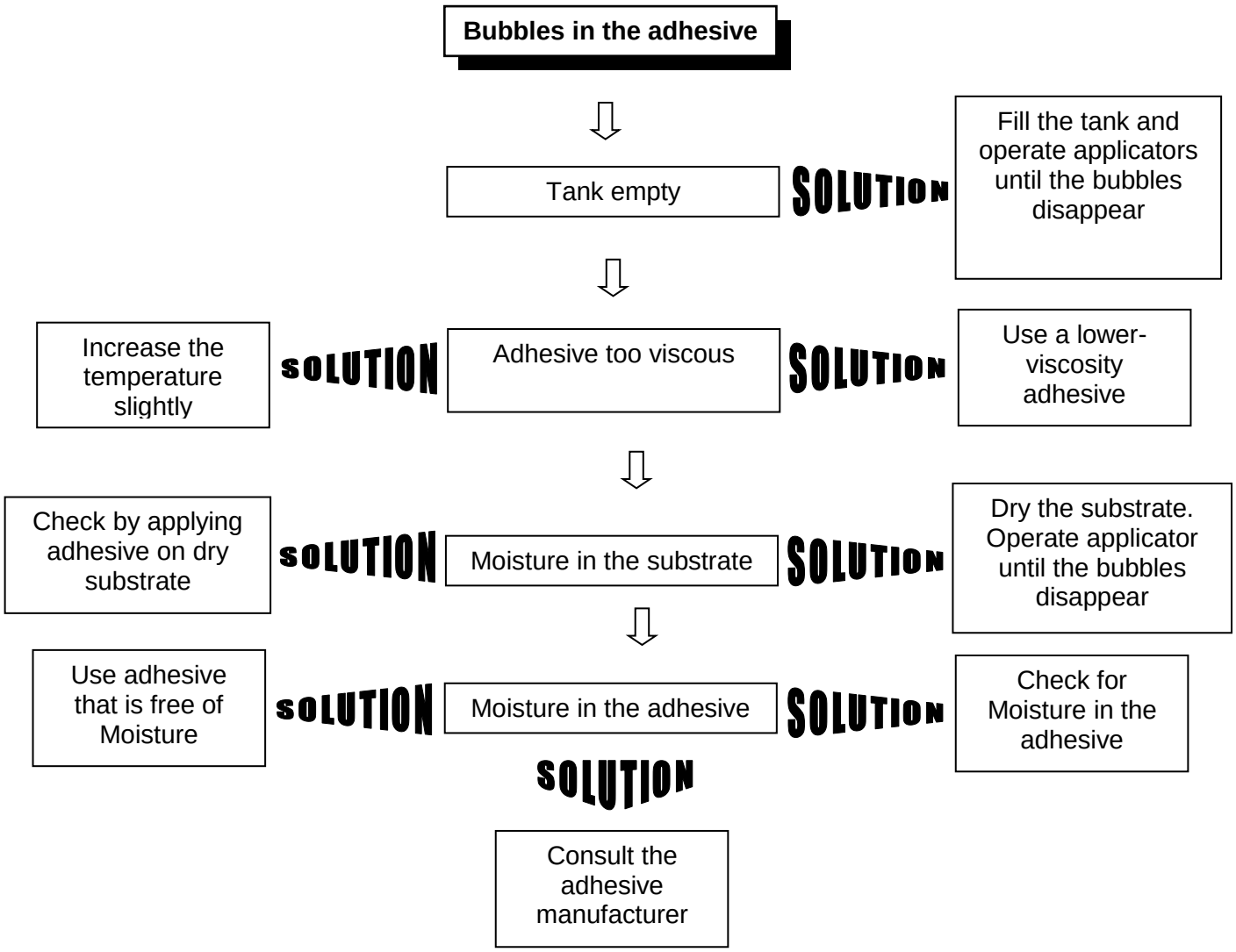

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CHAPTER 8
EQUIPMENT REPAIR GUIDE

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

8.1. INTRODUCTION:

This chapter explains the procedures for dismantling and replacing some components. These procedures must be done during maintenance tasks, or when there is a failure.

Before beginning, make sure the operator is properly protected and all safety measures are being followed.

1. Switch off the air at the mains.
2. Switch off the main switch.
3. Lock and tag out the main switch.
4. Make sure the electricity is off.
5. Follow applicable safety and health standards.

Attached are the exploded views that illustrate the procedures.

8.2. CHANGING THE 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 on hand, to replace when necessary, is recommended. This replacement is quick and improves equipment performance.

1. To change the filter, the applicator should be at working temperature.
2. Reduce the applicator air pressure to "0".
3. Place a receptacle below to collect the adhesive from the manifold.
4. Open the drain valve with a screwdriver to eliminate residual pressure.
5. Open the filter plug screw with a screwdriver, and take out the filter unit.
6. Place the filter into the manifold and screw it in with a screwdriver.
7. Close the drain valve with a screwdriver.
8. Set to the desired working pressure.

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8.3. REPAIRING THE MANIFOLD:

The manifold is the element that distributes Hot-Melt, after it has been filtered, to the hoses and guns.

It is assembled at the bottom of the tank so that the tank heaters heat it indirectly.

The manifold has six outlet ports to connect the Hot-Melt hoses; three at the bottom and another three at the front.

Do not disassemble the manifold. This operation should only be done if there is a Hot-Melt leak between the tank and the manifold.

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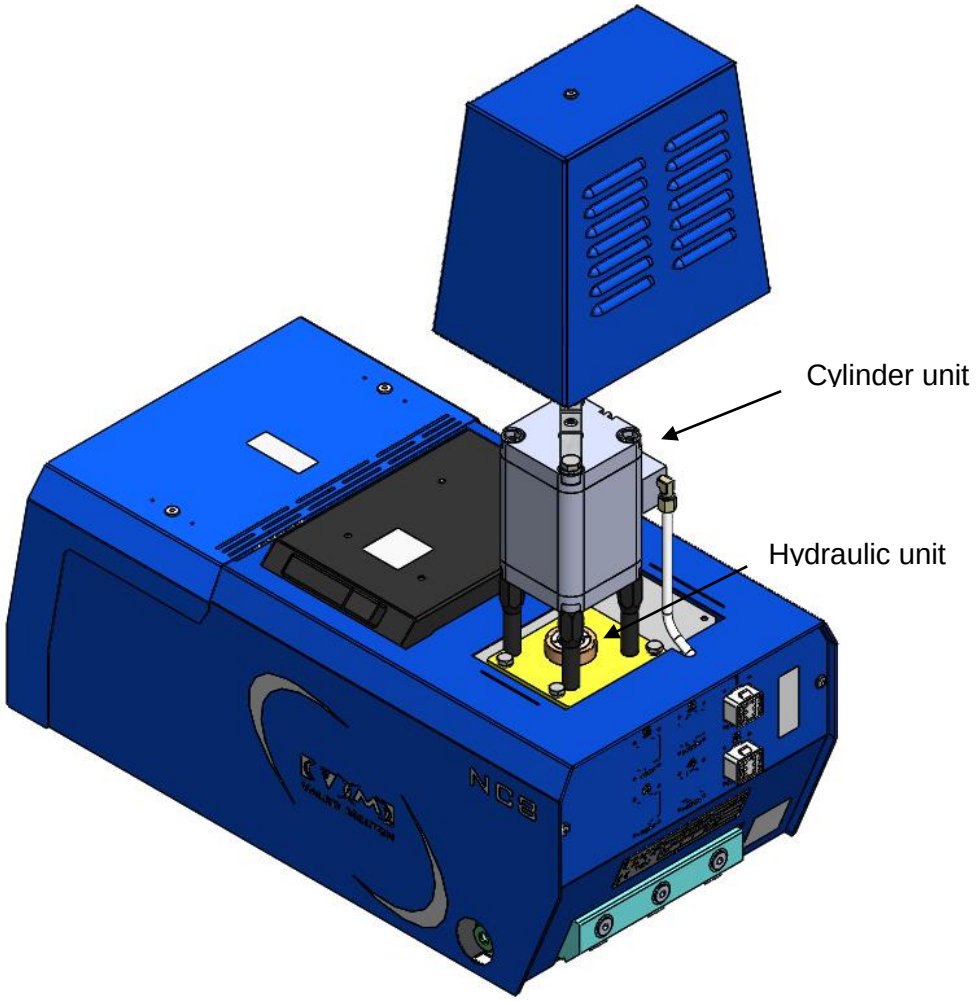
8.4. REPAIRING THE PNEUMATIC PUMP UNIT:

The pump unit consists of a valve, a shifter valve, a pneumatic cylinder and a double-acting hydraulic pump, equipped with a pressure compensator to avoid a drop in flow rate that occurs when changing pump direction, and to enable maximum uniformity in Hot-Melt flow.



Before disassembling the hydraulic unit, put on goggles, gloves and long sleeves to avoid possible burns from splashes of hot adhesive.

1. Warm the tank until the adhesive is melted.
2. Reduce the air pressure to zero.
3. Eliminate system pressure by releasing the guns manually or by opening the bleed valve.
4. Disconnect the electricity.
5. Disconnect the regulator unit electrically and mechanically.

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6. Loosen the two pump cover screws 1/4 turn and lift the pump casing.

Follow the assembly procedure instructions carefully.

Positioning and alignment of some elements are critical to perfect pump operation.

In the event the pump not working correctly, carry out the following checks.

Is the air pipe connected?
Does the electrovalve work?
Is the equipment at the right temperature?
Is the regulator working at the right pressure?
Are the filters clean?
Are the modules blocked?
Is the shaft aligned correctly?

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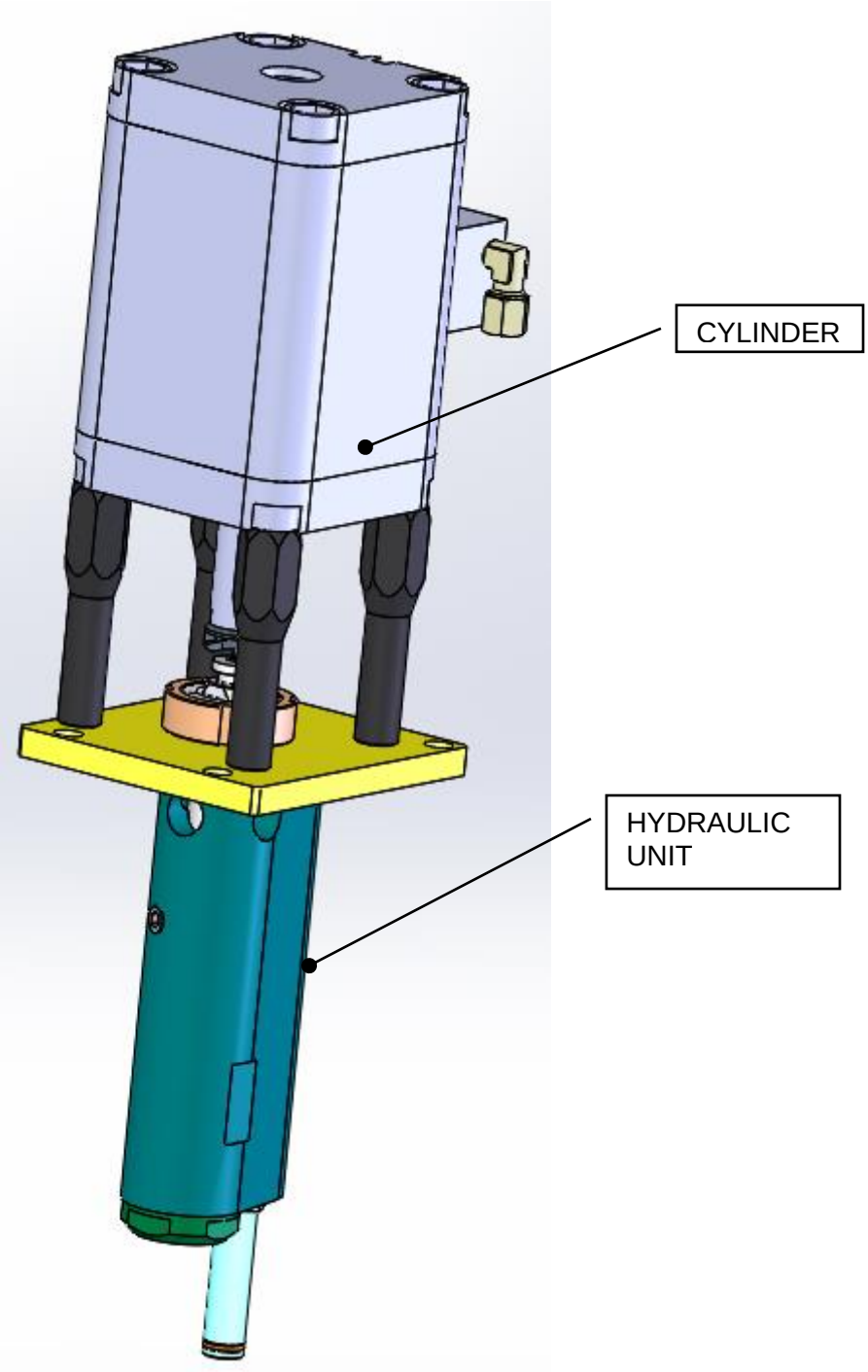
8.4.1 High Flow Pump:



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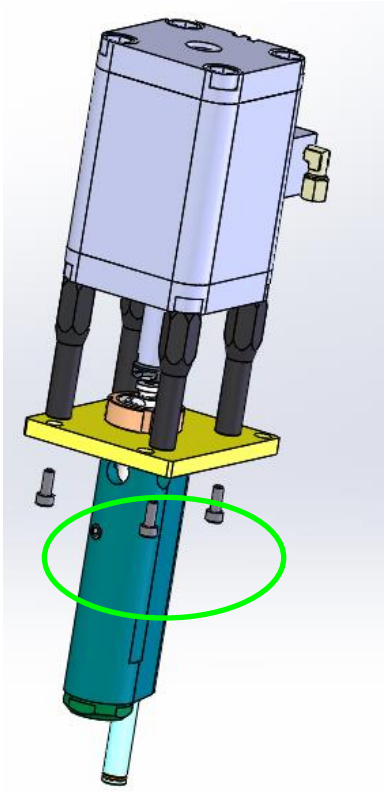
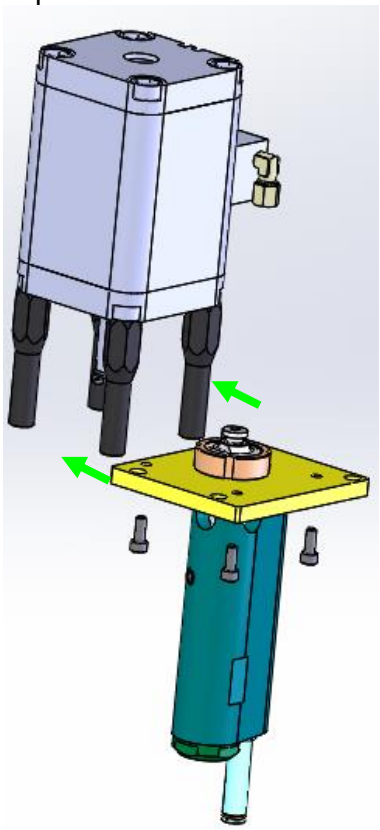
8.4.1.1 CYLINDER:

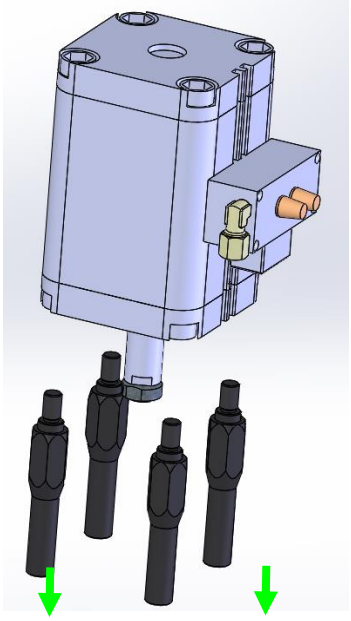
1. Loosen the screws.



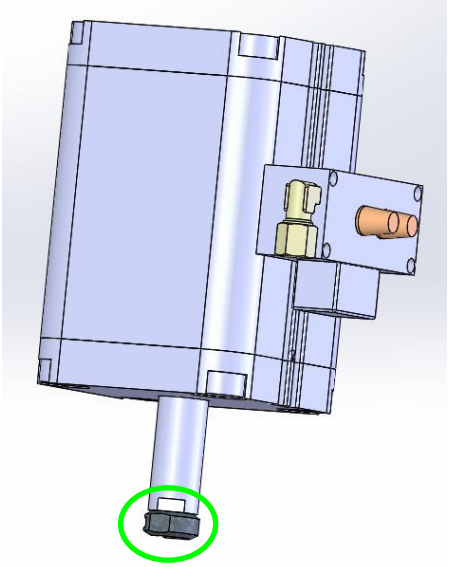
2. Separate the units.



3. Loosen the four standoffs.



4. Loosen the shaft knob and socket joint.



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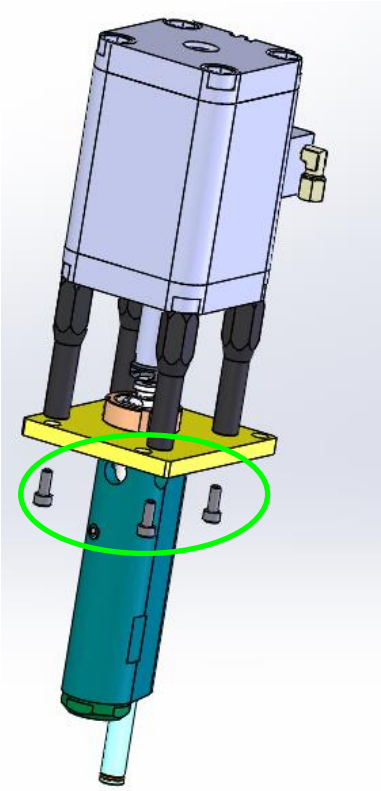
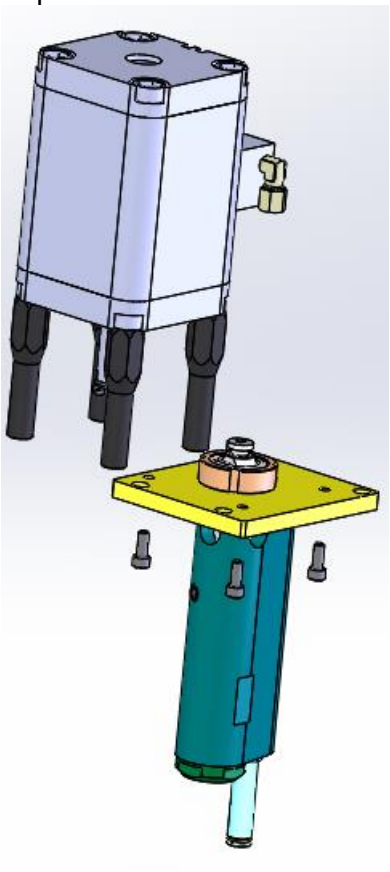
8.4.1.2 HYDRAULIC UNIT:

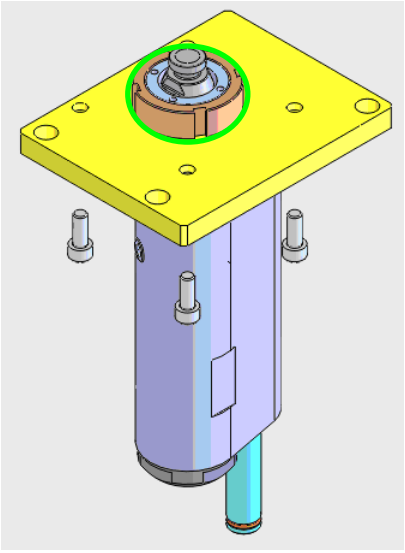
1. Loosen the screws.



2. Separate the units.



3. Turn and separate the nut.



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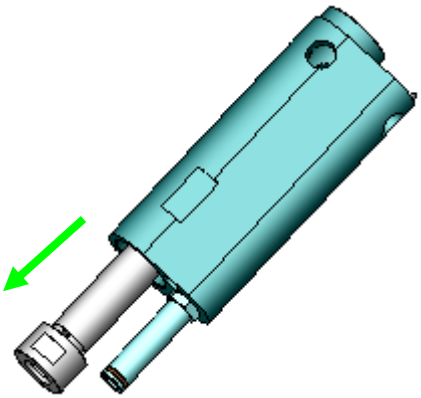
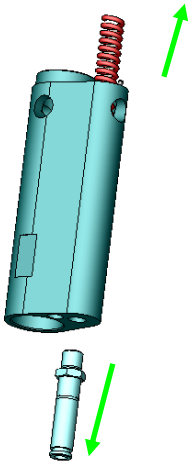
4. Loosen.

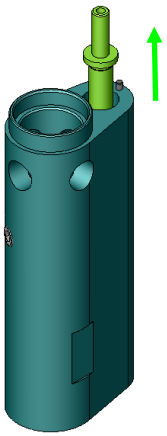
5. Remove the shaft.



6. Remove the spring and inlet tube.



7. Remove the spring guide.



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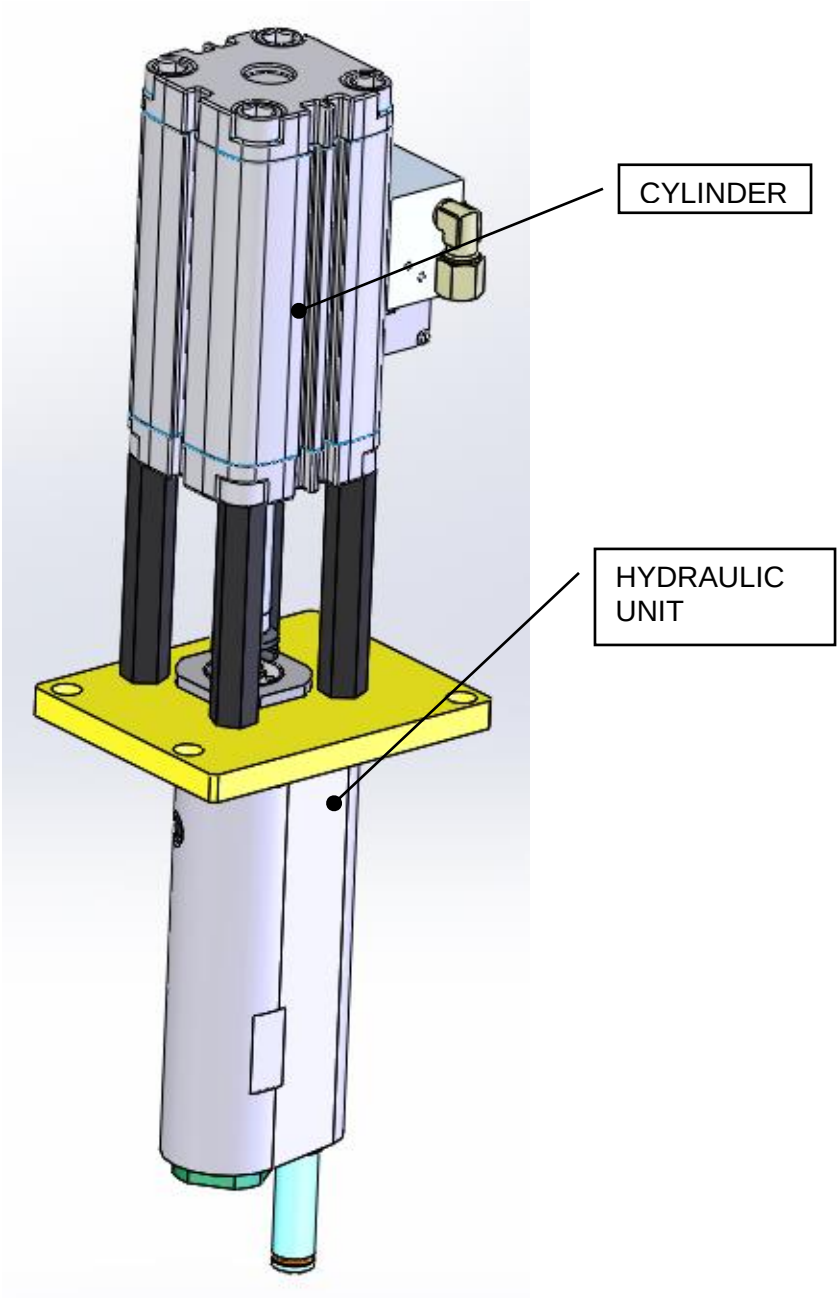
8.4.2 Low Flow Pump:



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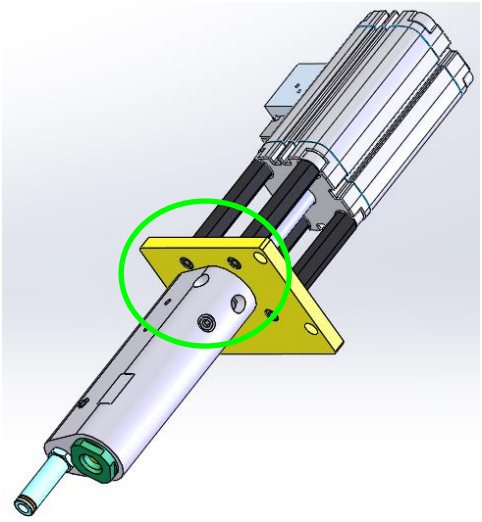
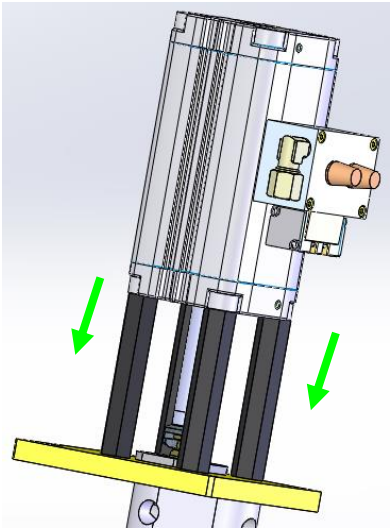
8.4.2.1 CYLINDER:

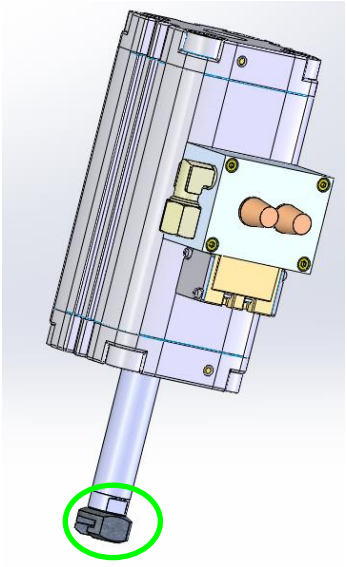
1. Loosen the four screws on the bottom.



2. Loosen the four standoffs.



3. Loosen the shaft knob and socket joint.



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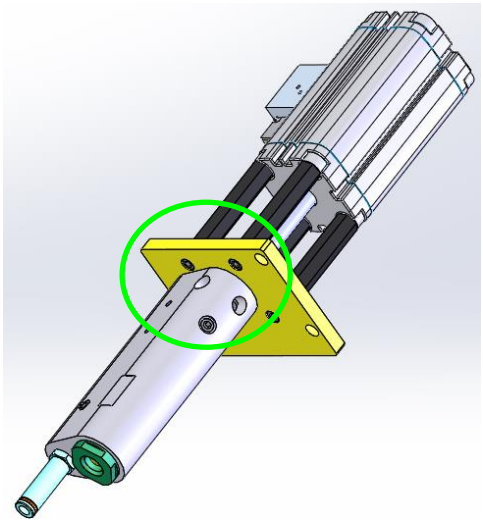
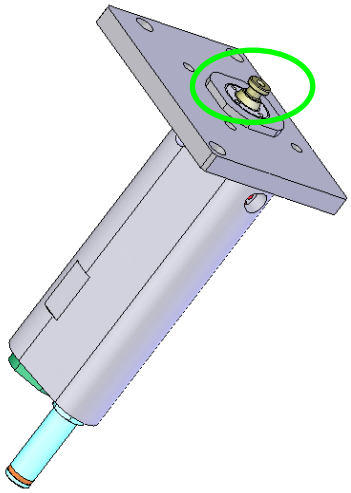
8.4.2.2 HYDRAULIC UNIT:

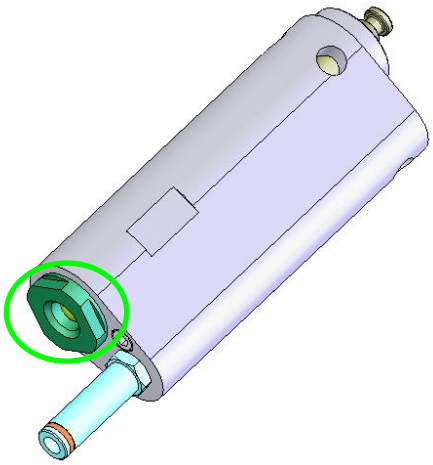
1. Loosen the four screws on the bottom.



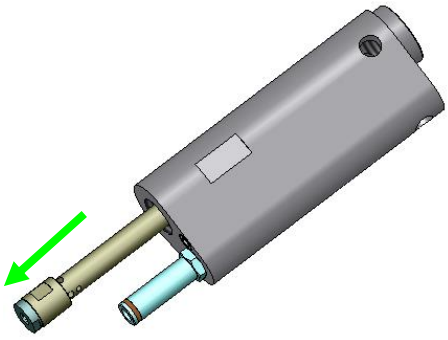
2. Loosen.



3. Loosen.



4. Remove the shaft.



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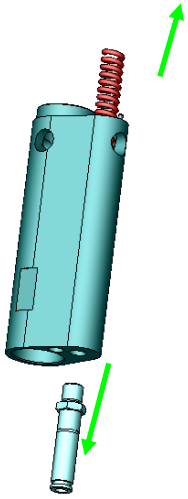
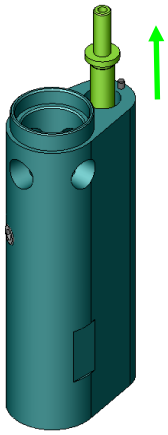
5. Remove the spring and inlet tube.

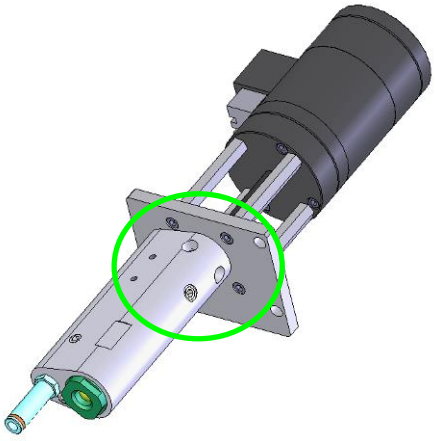


6. Remove the spring guide.

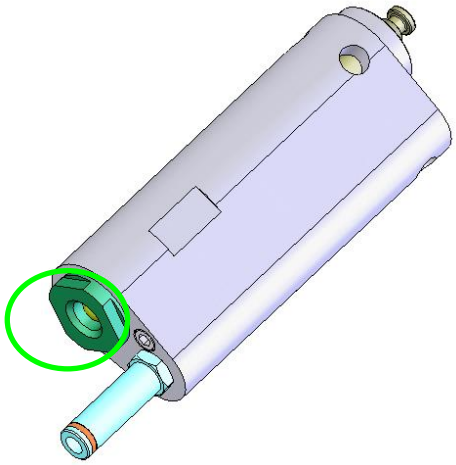


8.5. CLEANING VALVES:

1. Loosen the four screws on the bottom.



2. Loosen.



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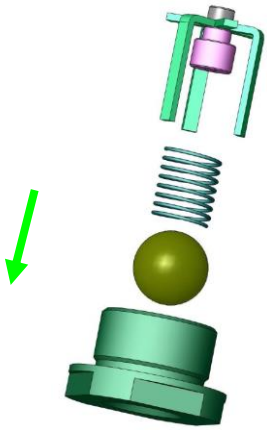
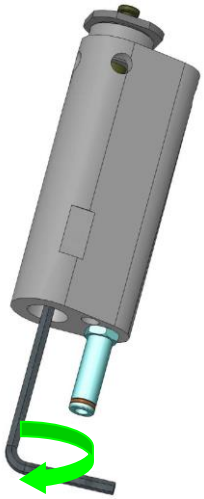
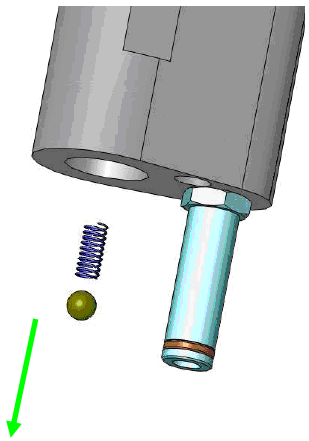
3. Clean the valve.



4. Use the M6 Allen wrench to remove the compression valve.



7. Remove the ball and spring and clean.



8.6. REPAIRING ELECTRIC COMPONENTS:

If one of the electric components needs to be repaired, proceed according to the part listings in Addendum A and the electric diagrams in Addendum B.

All these operations should be performed with the machine switched off at the mains and disconnected from the main air circuit, making

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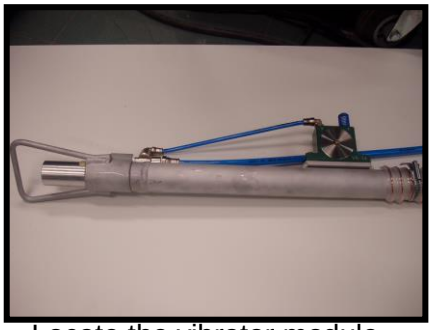
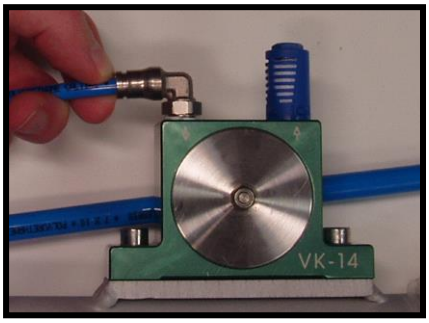
8.7. REPAIRING VACUUM FEEDER:

For any electrical part requiring replacement, contact your Melton dealer. For mechanical, stress the following:

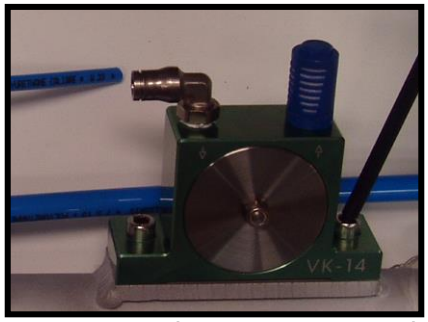
Changing the vibrator module



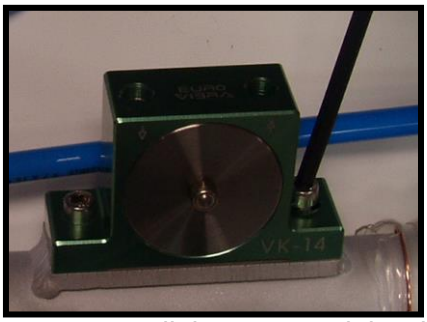
Locate the vibrator module, mounted on the loader arm



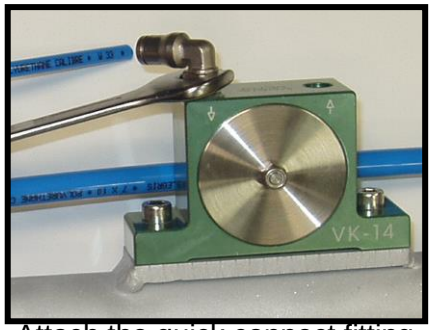
Remove the air hose fitting. Press the plunger



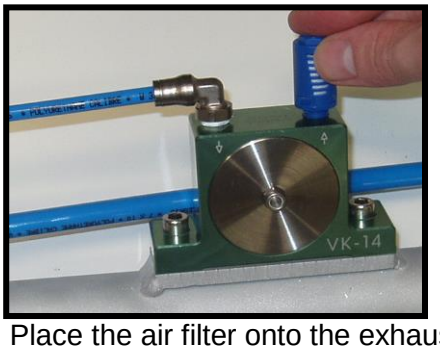
Remove the two screws and remove the module



Install the new module with the screws



Attach the quick connect fitting to the air inlet



Place the air filter onto the exhaust module

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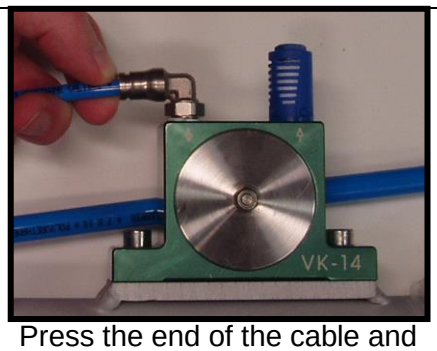
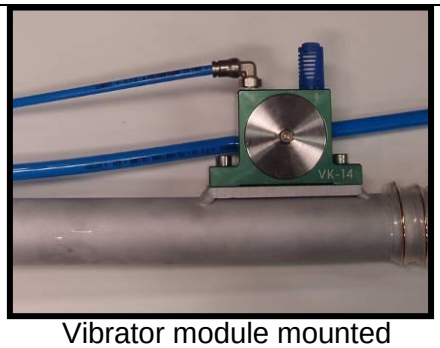


Press the end of the cable and insert the air hose



Vibrator module mounted

Open the main air inlet.
Turn on the equipment.

The equipment is ready again!

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CHAPTER 9
LOG SHEETS

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DATE	INCIDENCE

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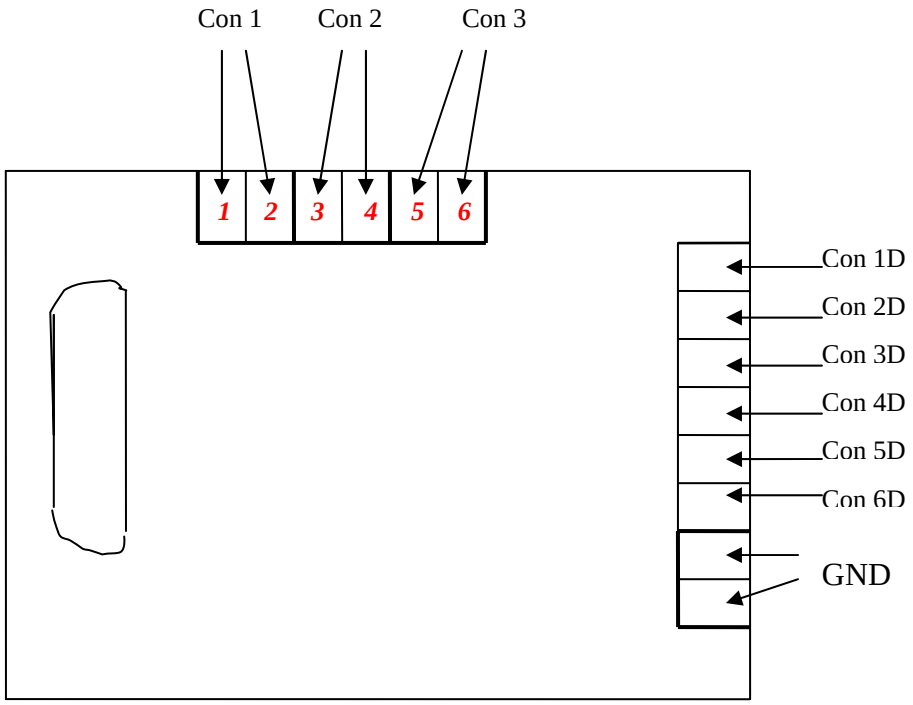
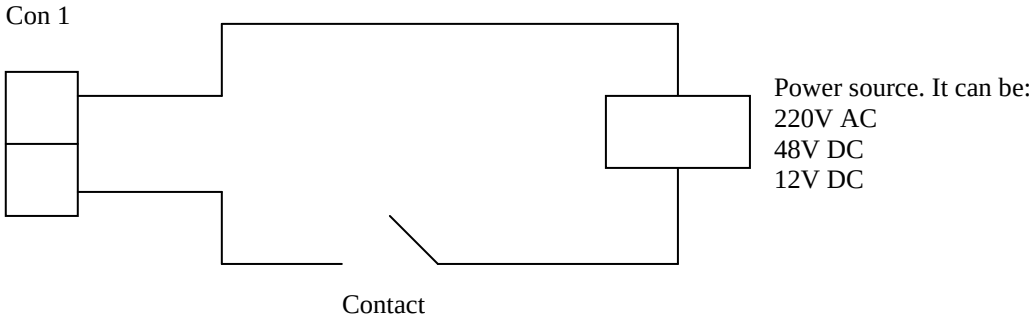
I/O board of six outputs by States.

I/O board scheme.



Note: Con 1 power is needed. It will be connected in the following way.



Rest of terminals: (dry-contact; Like Switches)

"0" → No signal (Open)
"1" → Signal ON (Close); 3 to 4; 5 to 6; _D to GND.

Programmable parameters (Only on 6Outs Control card)

Input	Correspondent "P" parameter	Typical Configuration. (Fixed in 4outs)
Con 1	18	1
Con 2	19	2
Con 3	20	3
Con 1D	25	4
Con 2D	21	5
Con 3D	22	6
Con 4D	23	7
Con 5D	24	8
Con 6D	25	9

For each connector input a different function can be set. Selecting a input value between 0 and 9. See the table below:

Function	Number
Disable	0
Aplication	1
Stand By	2
On/Off	3
Hose-Gun channel 1	4
Hose-Gun channel 2	5
Hose-Gun channel 3	6
Hose-Gun channel 4	7
Hose-Gun channel 5	8
Hose-Gun channel 6	9

Aplication.

This function Works in the following way: Once we have the pump permission and P8 parameter is different from 0 happens the following, P8 value is the time to wait if there is not any signal in this input before the equipments passes to stand by mode. If we pass the P8 value in minutes with any pulse in this input the machine goes to stand by mode.

Once the machine is in stand by mode there are 2 options to make it working in Normal mode.

a) Pushing the Stand by button on the machine screen
b) Giving a pulse for the application input. (If there is an input before the P8 time has passed, the time counter starts again)

Stand By

While the input is not “close” “1” in the stand by input the machine Works in a normal mode.

While the signal is closed in this input, the machine goes to stand by mode.

On / Off

While the input is not “close” “1” in the on/off input the machine Works in a normal mode.

While the signal is closed in this input, the machine goes to stand by mode.

Hose-Gun channel

While the input is not “close” “1” that has the hose-gun channel function, this channel works in a normal mode (enable). If the signal is closed in one input, the channel is disabling.

It works exactly in the same way for the rest of hose-gun channels.

*NOTE:

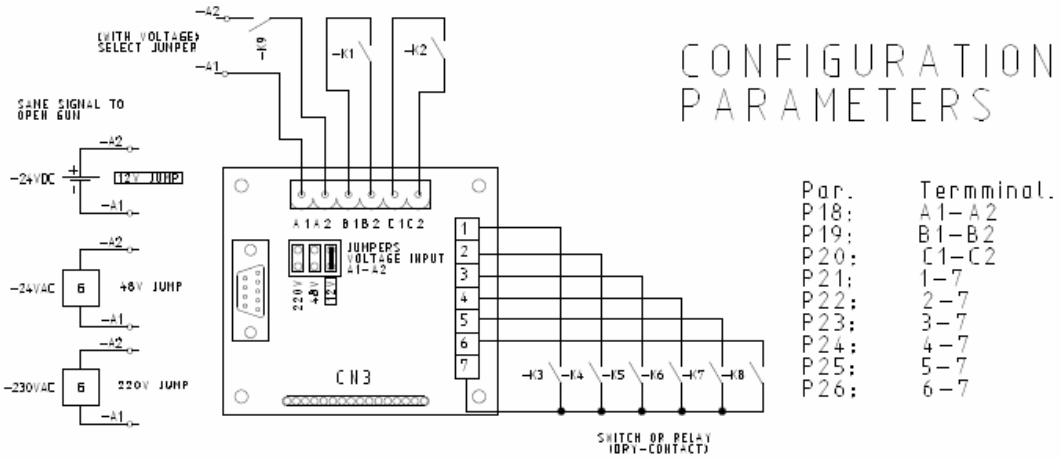
We put a the input when we close circuit between GNR of I/O Card Con1 (1-2)

Con *X* D – GND

Con2 (3-4)

Con3 (5-6)

If we send potential over 12Vdc it’s input can be broken.



**CAUTION:

If we program this function the system follows the last signal, so the wire connection has more priority than pushbuttons.

i.e. We programmed the on/off input, if we try to turn off the unit by the pushbuttons, the unit goes to off, and just next the unit see the state off input and it goes on. So we can’t use the pushbuttons functions if we use i/o inputs.

DESPIECE / PART LISTING

EQUIPO NC 4,8,16 /NC 4,8,16 EQUIPMENT

R035010201

1

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5. CONJUNTO TABIQUE TERMICO / THERMAL WALL ASSEMBLY:.....11

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6.1. CONJUNTO DISTRIBUIDOR SERIE EC / EC SERIES MANIFOLD ASSEMBLY (916XX127): 21

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8. CONJUNTO CARCASA BOMBA /PUMP COVER ASSEMBLY:.....26

9. CONJUNTO CARCASA CENTRAL / CENTER HOSING ASSEMBLY:.....27

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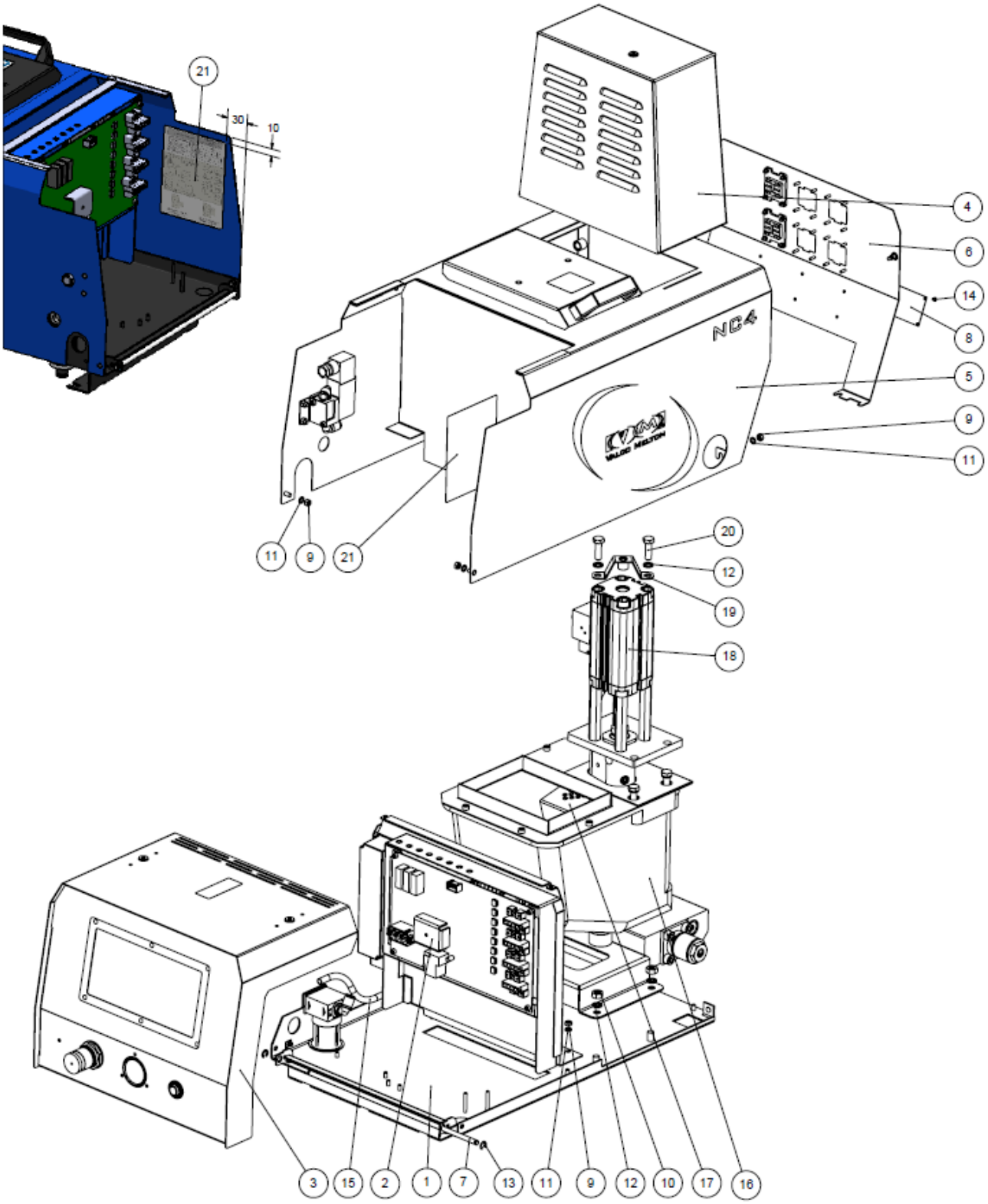
1. CONJUNTO ENCOLADOR NC4 / NC4 EQUIPMENT ASSEMBLY:



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Nº	Descripción	Description	Ref.	Qty
1	SUBCONJUNTO CUNA SERIE NC	NC SERIES SUPPORT ASSEMBLY	PAGE 9	1
2	SUBCONJUNTO TABIQUE TÉRMICO NC	NC THERMAL WALL ASSEMBLY	PAGE 11	1
3	SUBCONJUNTO PANEL FRONTAL NC	NC FRONT PANEL ASSEMBLY	PAGE 24	1
4	SUBCONJUNTO CARCASA BOMBA NC	NC PUMP COVER ASSEMBLY	PAGE 26	1
5	SUBCONJUNTO CARCASA CENTRAL NC	NC CENTER HOUSING ASSEMBLY	PAGE 27	1
6	SUBCONJUNTO PANEL TRASERO NC	NC REAR PANEL ASSEMBLY	PAGE 30	1
7	EJE BISAGRA PORTONES	DOOR AXLE	917XX578	1
8	CHAPA MATRICULA	ID PLATE	917XX326	1
9	TUERCA HEXAGONAL M5 INOX.	STAINLESS M5 HEX NUT	910XX359	6
10	TUERCA HEXAGONAL M8 INOX.	STAINLESS M8 HEX NUT	911XX120	4
11	ARANDELA GROVER 5 INOX.	STAINLESS 5 GROVER WASHER	910XX085	6
12	ARANDELA GROVER 8 INOX.	STAINLESS 8 GROVER WASHER	910XX135	4
13	ANILLO RETENCIÓN LATERAL 5	RING LATERAL RETENTION 5	914XX254	2
14	REMACHE POP 2.4X5.1	2.4X5.1 POP RIVET	915XX249	2
15	TUBO TEFLÓN Ø8-Ø6 L=625MM	L=625MM Ø8-Ø6 TEFLON TUBE	988XX019	1
16	SUBCONJUNTO DEPOSITO NC4	NC4 TANK ASSEMBLY	PAGE 13	1
17	REJILLA DEPOSITO C4	C4 TANK GRILLE	915XX367	1
18	CONJUNTO BOMBA	PUMP ASSEMBLY	PAGE 31	1
19	HORQUILLA AMARRE CILINDRO LF-NMT PARA NC	LOW FLOW NC CYLINDER MOORING FORK	911XX542	1
20	TORNILLO HEXAGONAL M8X25 INOX.	HEXAGONAL SCREW M8X25 STAINLESS	911XX516	2
21	PEGATINA CONEXIONES ELECTRICAS		DEPENDING MODEL	1

Nº	4 salidas	6 salidas
21	911XX581	911XX582

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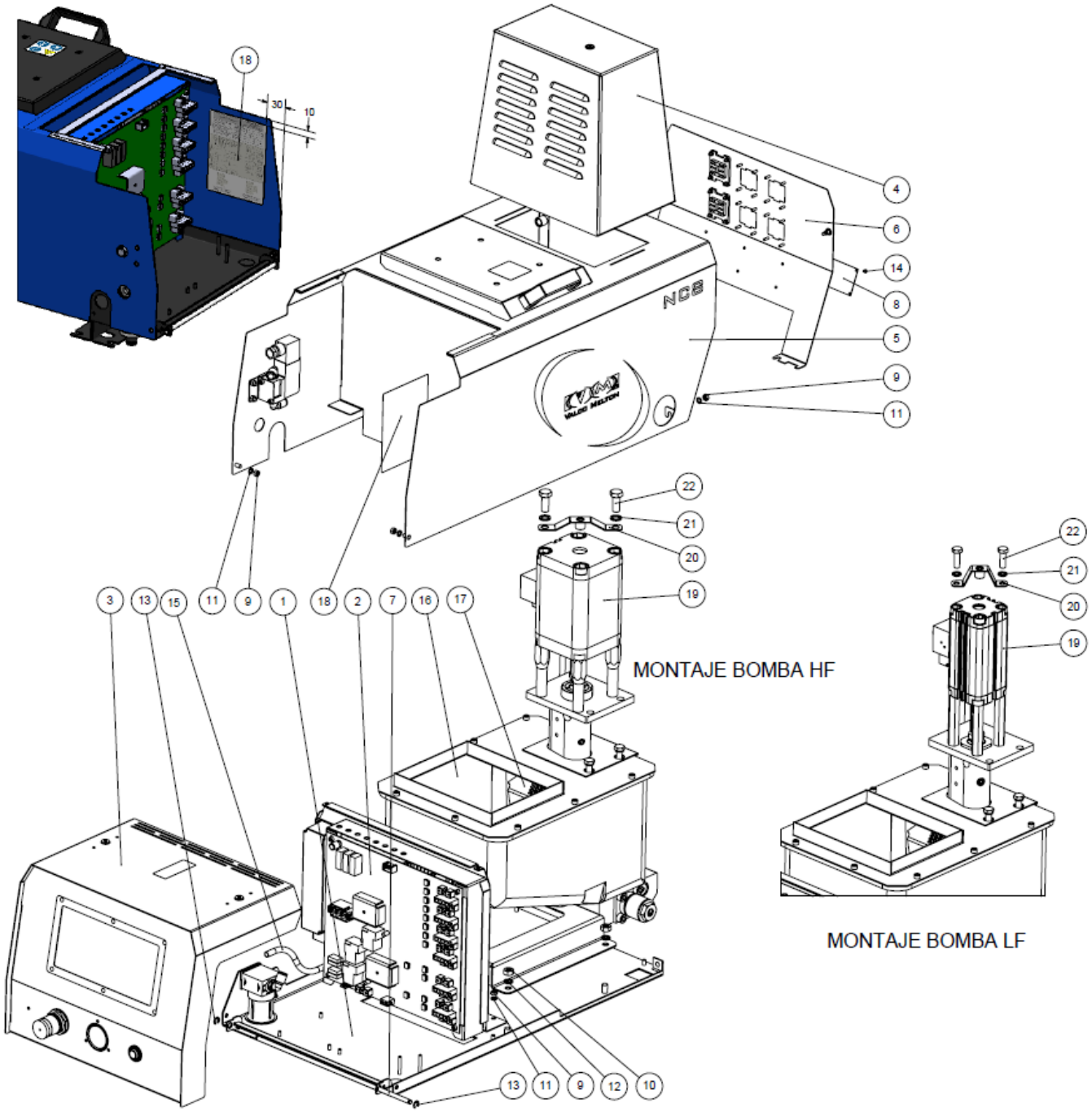
2. CONJUNTO ENCOLADOR NC8 / NC8 EQUIPMENT ASSEMBLY:



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Nº	Descripción	Description	Ref.	Qty
1	SUBCONJUNTO CUNA SERIE NC	NC SERIES SUPPORT ASSEMBLY	PAGE 9	1
2	SUBCONJUNTO TABIQUE TÉRMICO NC	NC THERMAL WALL ASSEMBLY	PAGE 11	1
3	SUBCONJUNTO PANEL FRONTAL NC	NC FRONT PANEL ASSEMBLY	PAGE 24	1
4	SUBCONJUNTO CARCASA BOMBA NC	NC PUMP COVER ASSEMBLY	PAGE 26	1
5	SUBCONJUNTO CARCASA CENTRAL NC	NC CENTER HOUSING ASSEMBLY	PAGE 27	1
6	SUBCONJUNTO PANEL TRASERO NC	NC REAR PANEL ASSEMBLY	PAGE 30	1
7	EJE BISAGRA PORTONES	DOOR AXLE	917XX578	1
8	CHAPA MATRICULA	ID PLATE	917XX326	1
9	TUERCA HEXAGONAL M5 INOX.	STAINLESS M5 HEX NUT	910XX359	6
10	TUERCA HEXAGONAL M8 INOX.	STAINLESS M8 HEX NUT	911XX120	4
11	ARANDELA GROVER 5 INOX.	STAINLESS 5 GROVER WASHER	910XX085	6
12	ARANDELA GROVER 8 INOX.	STAINLESS 8 GROVER WASHER	910XX135	4
13	ANILLO RETENCIÓN LATERAL 5	RING LATERAL RETENTION 5	914XX254	2
14	REMACHE POP 2.4X5.1	2.4X5.1 POP RIVET	915XX249	6
15	TUBO TEFLÓN Ø8-Ø6 L=600MM	L=600MM Ø8-Ø6 TEFLON TUBE	988XX019	1
16	SUBCONJUNTO DEPOSITO NC8	NC8 TANK ASSEMBLY	PAGE 16	1
17	REJILLA DEPOSITO C8	C8 TANK GRILLE	910XX982	1
18	PEGATINA CONEXIONES ELECTRICAS		DEPENDING MODEL	
19	CONJUNTO BOMBA	PUMP ASSEMBLY	DEPENDING MODEL	1
20	HORQUILLA AMARRE CILINDRO	CYLINDER MOORING FORK	DEPENDING MODEL	1
21	ARANDELA GROVER INOX.	STAINLESS GROVER WASHER	DEPENDING MODEL	2
22	TORNILLO HEXAGONAL INOX.	HEXAGONAL SCREW STAINLESS	DEPENDING MODEL	2

Nº	4 salidas	6 salidas
18	911XX581	911XX582

Nº	NC8-HF	NC8-LF
20	911XX510	911XX542
21	915XX578	910XX135
22	900XX114	911XX125

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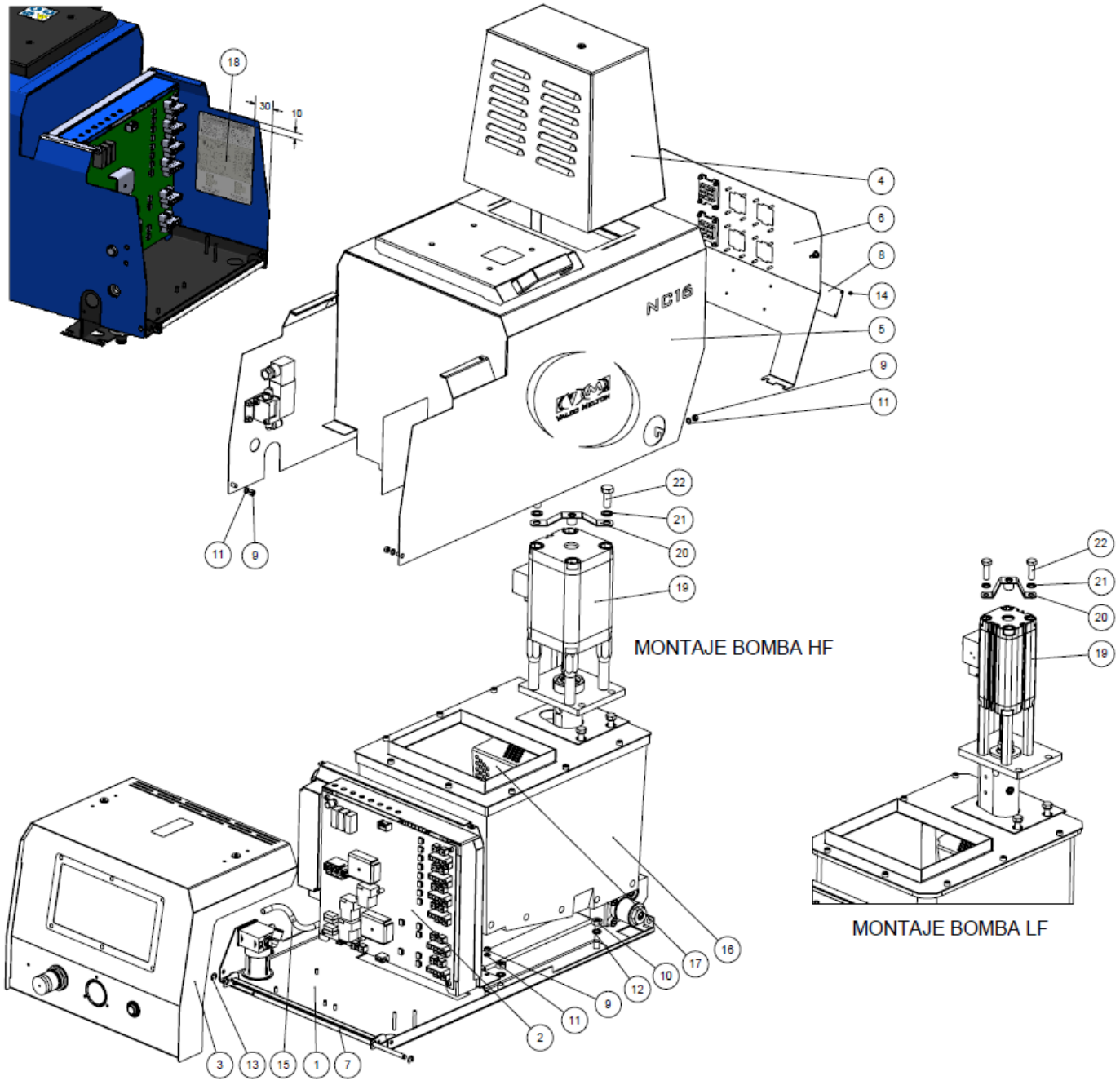
3. CONJUNTO ENCOLADOR NC16 / EC16 EQUIPMENT ASSEMBLY:



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Nº	Descripción	Description	Ref.	Qty
1	SUBCONJUNTO CUNA SERIE NC	NC SERIES SUPPORT ASSEMBLY	PAGE 9	1
2	SUBCONJUNTO TABIQUE TÉRMICO NC	NC THERMAL WALL ASSEMBLY	PAGE 11	1
3	SUBCONJUNTO PANEL FRONTAL NC	NC FRONT PANEL ASSEMBLY	PAGE 24	1
4	SUBCONJUNTO CARCASA BOMBA NC	NC PUMP COVER ASSEMBLY	PAGE 26	1
5	SUBCONJUNTO CARCASA CENTRAL NC	NC CENTER HOUSING ASSEMBLY	PAGE 27	1
6	SUBCONJUNTO PANEL TRASERO NC	NC REAR PANEL ASSEMBLY	PAGE 30	1
7	EJE BISAGRA PORTONES	DOOR AXLE	917XX578	1
8	CHAPA MATRICULA	ID PLATE	917XX326	1
9	TUERCA HEXAGONAL M5 INOX.	STAINLESS M5 HEX NUT	910XX359	6
10	TUERCA HEXAGONAL M8 INOX.	STAINLESS M8 HEX NUT	911XX120	4
11	ARANDELA GROVER 5 INOX.	STAINLESS 5 GROVER WASHER	910XX085	6
12	ARANDELA GROVER 8 INOX.	STAINLESS 8 GROVER WASHER	910XX135	4
13	ANILLO RETENCIÓN LATERAL 5	RING LATERAL RETENTION 5	914XX254	2
14	REMACHE POP 2.4X5.1	2.4X5.1 POP RIVET	915XX249	6
15	TUBO TEFLÓN Ø8-Ø6 L=600MM	L=600MM Ø8-Ø6 TEFLON TUBE	988XX019	1
16	SUBCONJUNTO DEPOSITO NC16	NC16 TANK ASSEMBLY	PAGE 19	1
17	REJILLA DEPOSITO K14	K14 TANK GRILLE	917XX581	1
18	PEGATINA CONEXIONES ELECTRICAS			
19	CONJUNTO BOMBA	PUMP ASSEMBLY	PAGE 31	1
20	HORQUILLA AMARRE CILINDRO HF-NMT PARA NC	HIGH FLOW NC CYLINDER MOORING FORK	DEPENDING MODEL	1
21	ARANDELA GROVER M10 INOX.	STAINLESS M10 GROVER WASHER	DEPENDING MODEL	2
22	TORNILLO HEXAGONAL M10X25 INOX.	HEXAGONAL SCREW M8X25 STAINLESS	DEPENDING MODEL	2

Nº	4 salidas	6 salidas
18	911XX581	911XX582

Nº	NC8-HF	NC8-LF
20	911XX510	911XX542
21	915XX578	910XX135
22	900XX114	911XX125

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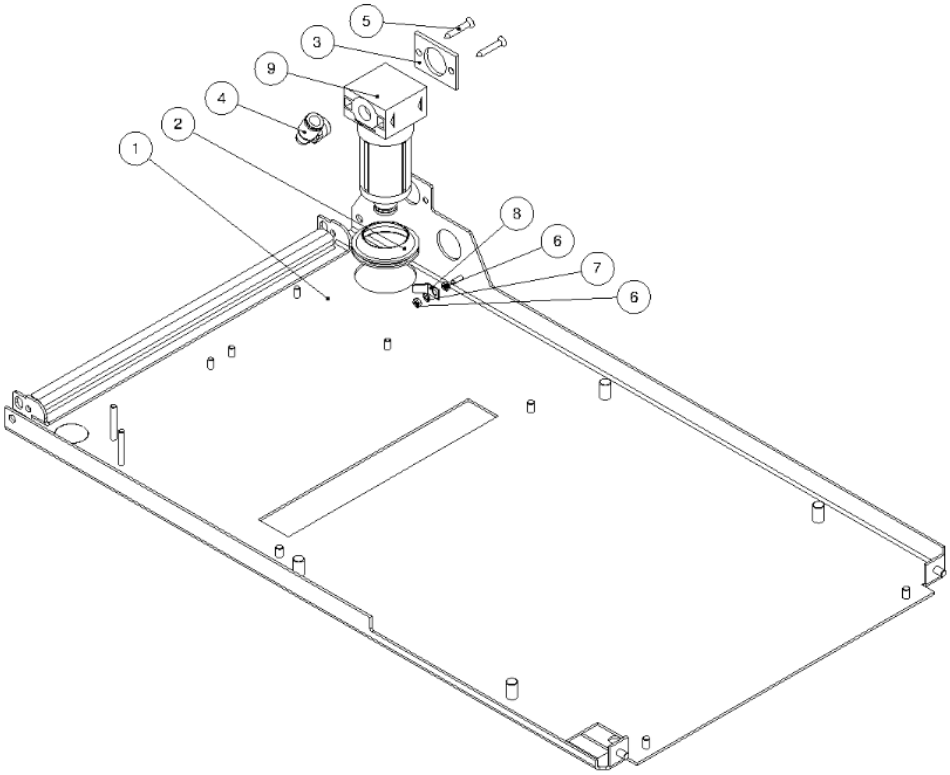
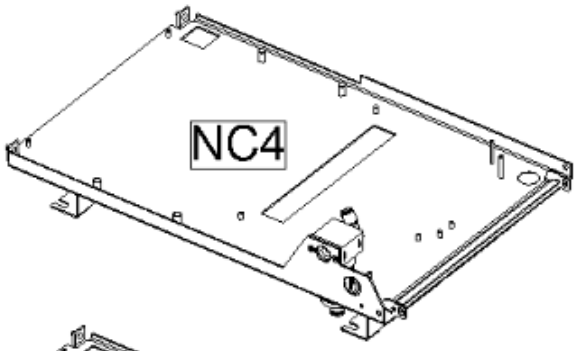
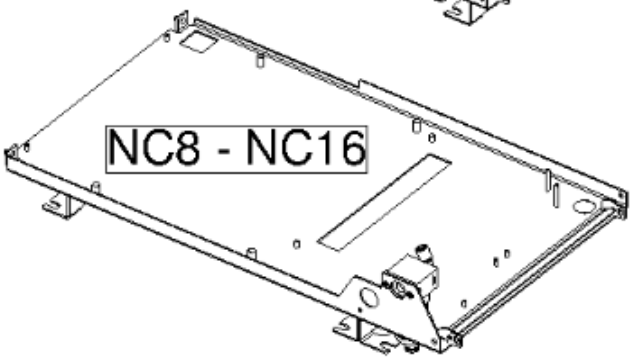
4. CONJUNTO CUNA / BASE ASSEMBLY:







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Nº	Descripción	Description	Ref.	Qty
1	CUNA NC	NC BASE	DEPENDING MODEL	1
2	JUNTA FILTRO	FILTER GASKET	914XX980	1
3	JUNTA LATERAL FILTRO AIRE	AIR FILTER LATERAL GASKET	914XX981	1
4	RACOR 90º 1/4" E/R TUBO 8	AIR FITTING 1/4"-T8 90º	988XX051	1
5	TORNILLO AVELLANADO ROSCA CHAPA 3.9X25	SCREW COUNTERSINK	918XX633	2
6	TUERCA HEXAGONAL M3 INOX.	STAINLESS M3 HEX NUT	914XX982	2
7	ARANDELA DENTADA M3	WASHER M3	910XX397	1
8	TERMINAL FASTON M-PANEL TE938	FASTON TERMINAL M-PANEL TE938	915XX158	1
9	FILTRO TOMAS 1/4"	1/4" TOMAS FILTER	918XX450	1

Nº	NC4	NC8-16
1	914XX978	914XX979

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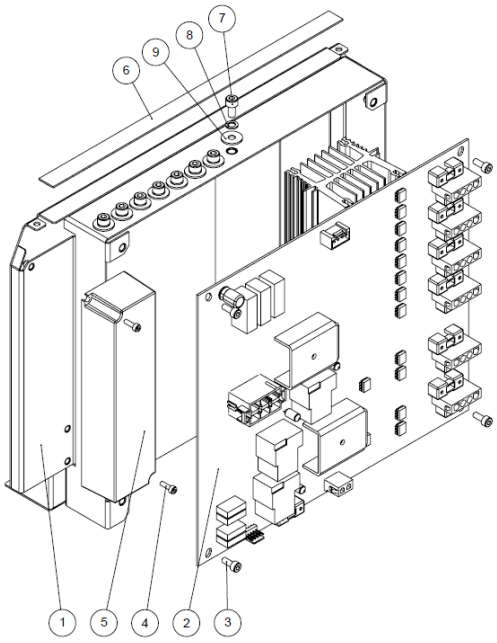
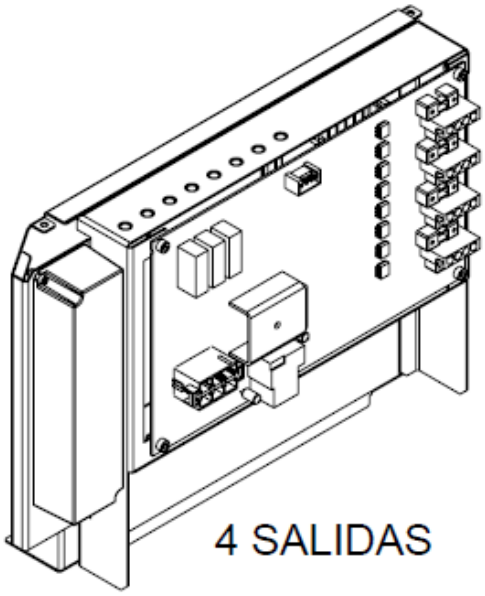
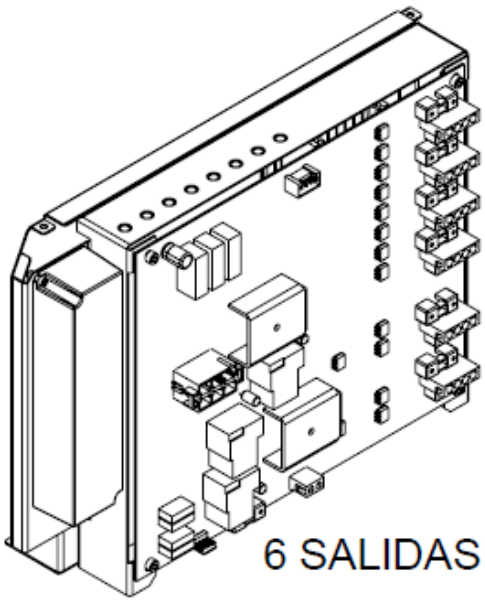
5. Conjunto tabique termico / thermal wall assembly:







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Nº	Descripción	Description	Ref.	Qty
1	TABIQUE TERMICO	THERMAL WALL	DEPENDING MODEL	1
2	TARJETA POTENCIA	PCB ASSY, 12 ZONE POWER BOARD		1
3	TORNILLO ALLEN M4X10 INOX.	SCREW ALLEN M4X10	910XX129	4
4	TORNILLO ALLEN M3X10 INOX.	SCREW ALLEN M3X10	910XX084	2
5	MAZO FUENTE ALIMENTACION NC	NC POWER SUPPLY	912XX393	1
6	ESPUMA AISLANTE 285MM	150 EURO-FOAM JOINT	913XX244	1
7	TORNILLO ALLEN M5x10 INOX.	SCREW ALLEN M5X10 SS	910XX968	8
8	ARANDELA GROWER M5 INOX.	WASHER GROWER M5 SS	910XX085	8
9	ARANDELA PLANA INOX DIN 9021	STAINLESS DIN 9021 5X15 PLANE WASHER	917XX478	8

Nº	4 SALIDAS	6 SALIDAS
1	911XX518	911XX517
2	911XX519	911XX520

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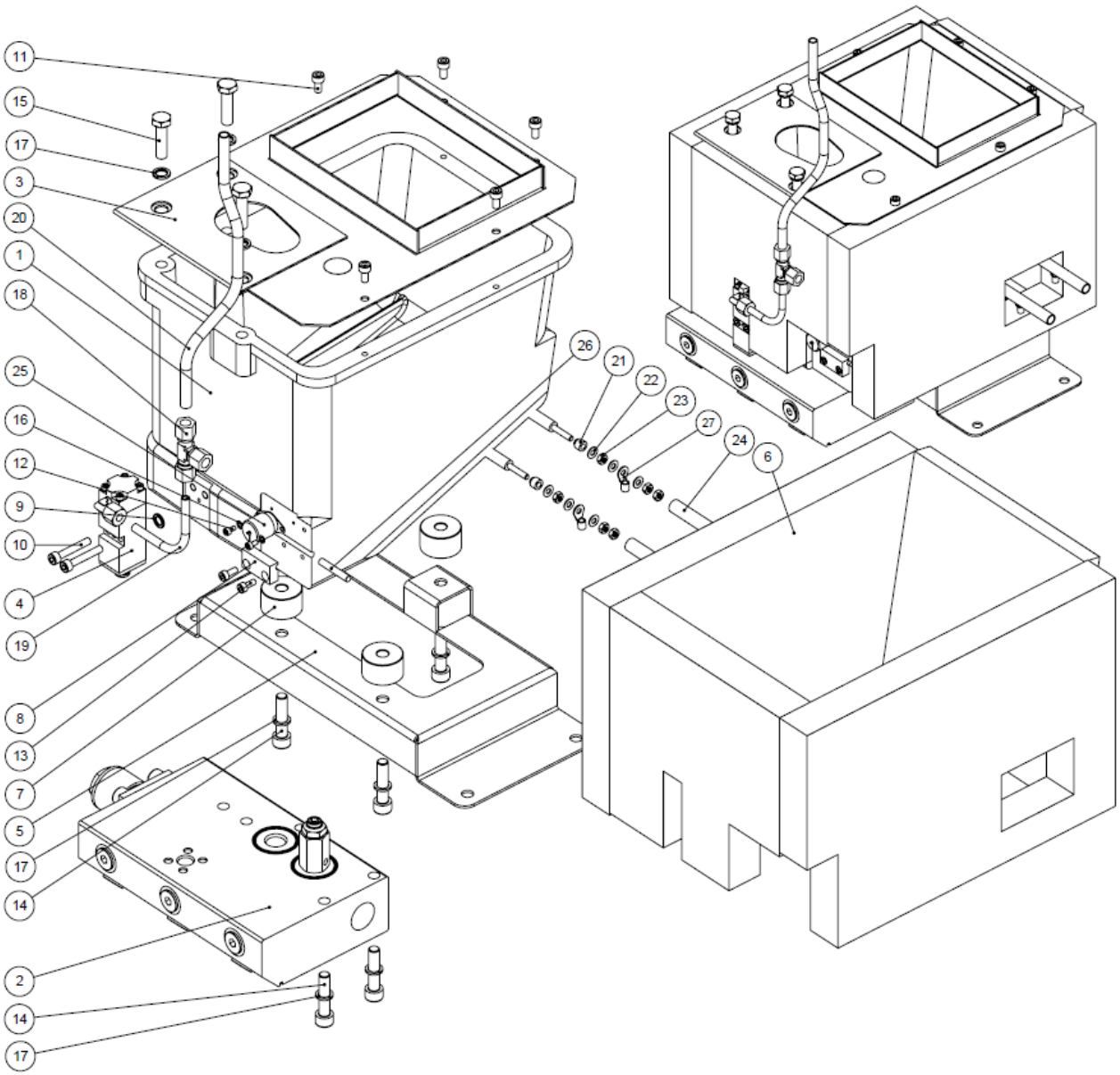
6. Conjunto deposito NC / NC Tank assembly:

NC4



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Nº	Descripción	Description	Ref.	Qty
1	KIT DEPOSITO EC4	EC4 TANK KIT	PAG 16	1
2	SUBCONJUNTO DISTRIBUIDOR SERIE EC	EC SERIES MANIFOLD ASSEMBLY	PAG 21	1
3	CHAPA BOCA DEPOSITO NC4	NC4 TANK TOP PLATE	911XX521	1
4	CONJUNTO MODULO DESCARGA	DOWNLOAD MODULE ASSEMBLY	919XX404	1
5	SOPORTE DEPÓSITO EC4	EC4TANK SUPPORT	917XX020	
6	KIT AISLAMIENTO DEPOSITO EC4	EC4 TANK INSULATION KIT	916XX836	1
7	AISLANTE PATA DEPOSITO	INSULATION TANK LEG	910XX072	3
8	BRIDA SONDA	SENSOR BRIDLE	914XX169	1
9	JUNTA TORICA VITON 7,65X1,78	7,65X1,78 VITON O´RING	910XX324	1
10	TORNILLO ALLEN 10-32 UNF 1-1/4” INOX	STAINLESS 10-32 UNF 1-1/4” ALLEN SCREW	912XX368	2
11	TORNILLO ALLEN M5X10 INOX.	STAINLESS M5X10 ALLEN SCREW	910XX968	5
12	TORNILLO ALLEN 3X6 INOX.	STAINLESS 3X6 ALLEN SCREW	911XX132	2
13	TORNILLO ALLEN M4X10 INOX.	STAINLESS M4X10 ALLEN SCREW	910XX129	2
14	TORNILLO ALLEN M8X35 INOX.	STAINLESS M8X35 ALLEN SCREW	915XX238	8
15	TORNILLO HEXAGONAL M8X30 INOX	STAINLESS M8X30 HEX SCREW	911XX125	3
16	ARANDELA DENTADA M3	STAINLESS 8 GROVER WASHER	910XX135	2
17	ARANDELA GROVER 8 INOX	STAINLESS 8 GROVER WASHER	910XX135	11
18	RACOR T CON OVALILLO TUBO 8 / SALIDA LATERAL TUBO Ø6	TUBE Ø6 LATERAL OUTPUT / TUBE 8 FITTING T WITH OVALILLO	918XX448	1
19	TUBO MODULO DESCARGA EC4 – EC8	EC4 - EC8 DOWNLOAD MODULE TUBE	918XX446	1
20	TUBO ACOMETIDA BOMBA LF	LF PUMP RUSH TUBE	918XX447	1
21	CASQUILLO CERÁMICO RESISTENCIA B PAIL	BPAIL CARTRIDGE HEATER CERAMIC BUSHING	913XX492	2
22	ARANDELA PLANA M4 INOX	M4 PLAIN WASHER STAINLESS	914XX330	6
23	TUERCA HEXAGONAL M4 INOX	HEXAGONAL NUT M4 STAINLESS	915XX159	6
24	TUBO IBERSIL SILICONA 8 NEGRO 2,5KV, LONG 75MM	SILICONE PIPE Ø8 BLACK 2.5KV LENG 75MM		1
25	MAZO TERMOSTATO	THERMOSTAT	DEPENDING MODEL	1
26	MAZO SONDA TEMPERATURA	TEMPERATURE PROBE	DEPENDING MODEL	1
27	TERMINAL PALA REDONDA 340ºC M4 2,7-6,6MM	340ºC M4 2,7-6,6MM ROUND BLADE TERMINAL		2
28	MAZO RESISTENCIA DEPOSITO C04 / C08	C04 / C08 TANK RESISTANCE	DEPENDING MODEL	1

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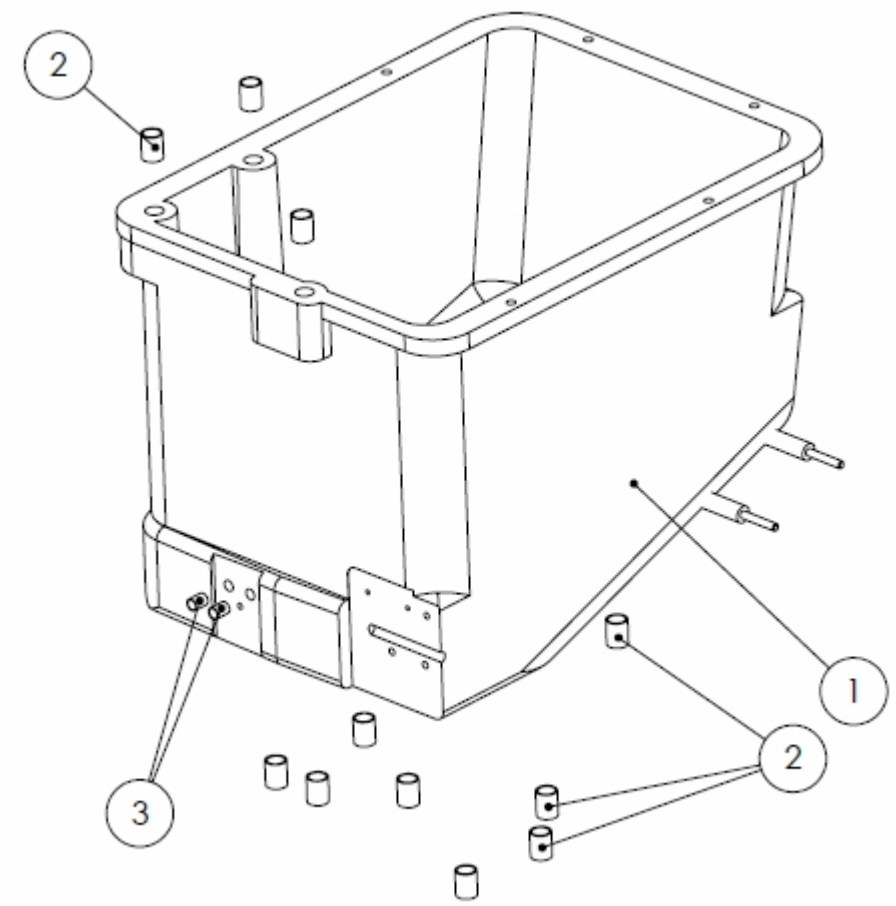
Kit deposito EC4 / EC4 tank kit (916XX746):



Nº		Descripción	Description		Qty
1		DEPOSITO EC4 MECANIZADO	EC MECHANIZED TANK		1
2		HELICOIL M8X12	M8X12 HELICOIL		11
3		HELICOIL M5X7,5	M5X7,5 HELICOIL		2

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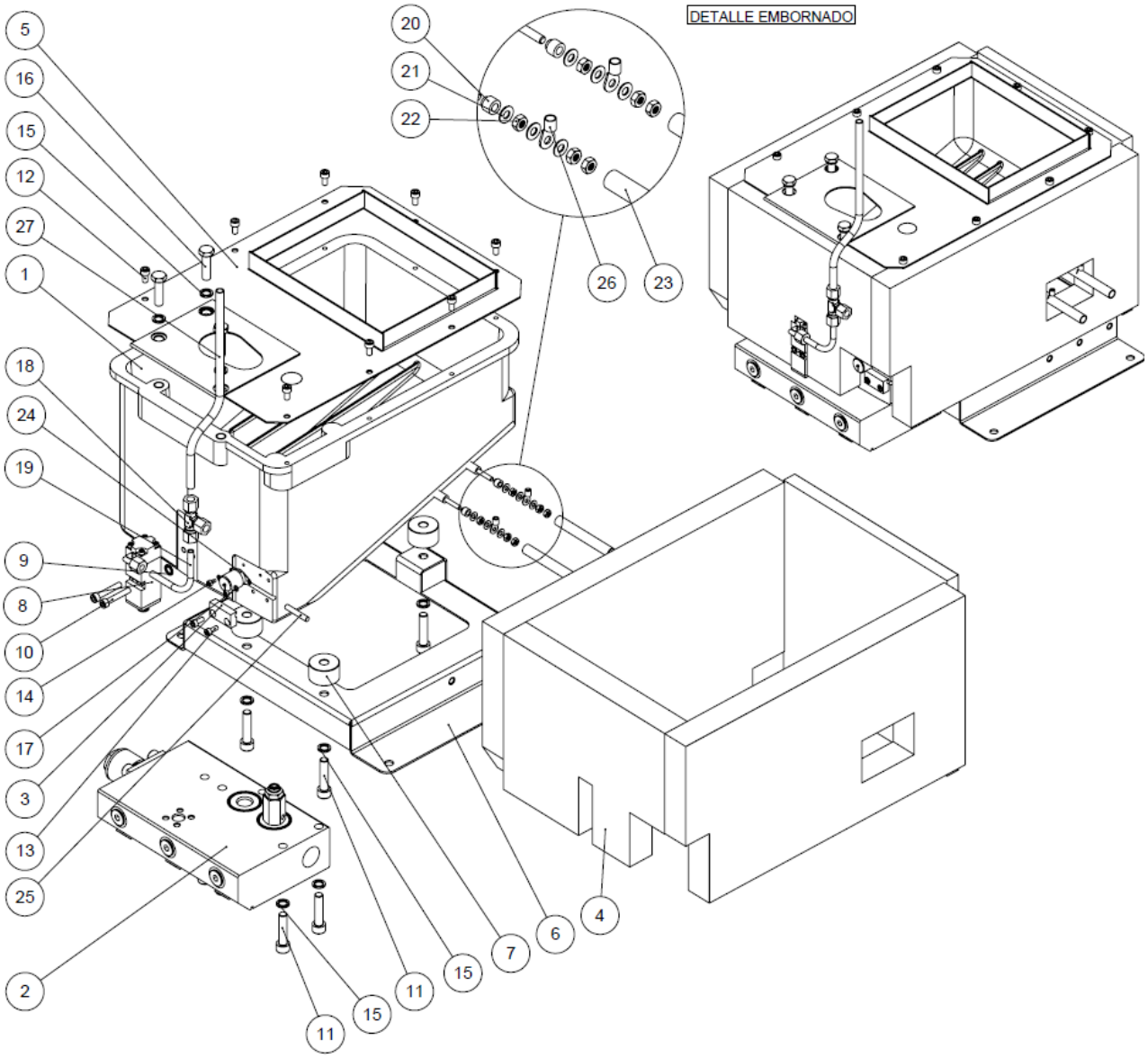
NC8



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Nº	Descripción	Description	Ref.	Qty
1	KIT DEPOSITO EC8	EC8 TANK KIT	PAG 19	1
2	SUBCONJUNTO DISTRIBUIDOR SERIE EC	EC SERIES MANIFOLD ASSEMBLY	PAG 21	1
3	BRIDA SONDA	SENSOR BRIDLE	914XX169	1
4	KIT AISLAMIENTO DEPOSITO EC8	EC8 TANK INSULATION KIT	916XX835	1
5	CHAPA BOCA DEPOSITO NC8	NC8 TANK TOP PLATE	911XX522	1
6	SOPORTE DEPÓSITO EC8	EC8TANK SUPPORT	917XX055	
7	AISLANTE PATA DEPOSITO	INSULATION TANK LEG	910XX072	3
8	CONJUNTO MODULO DESCARGA	DOWNLOAD MODULE ASSEMBLY	919XX404	1
9	JUNTA TORICA VITON 7,65X1,78	7,65X1,78 VITON O´RING	910XX324	1
10	TORNILLO ALLEN 10-32 UNF 1-1/4" INOX	STAINLESS 10-32 UNF 1-1/4" ALLEN SCREW	912XX368	2
11	TORNILLO ALLEN M8X35 INOX.	STAINLESS M8X35 ALLEN SCREW	915XX238	8
12	TORNILLO ALLEN M5X10 INOX.	STAINLESS M5X10 ALLEN SCREW	910XX968	5
13	TORNILLO ALLEN M4X10 INOX.	STAINLESS M4X10 ALLEN SCREW	910XX129	2
14	TORNILLO ALLEN 3X6 INOX.	STAINLESS 3X6 ALLEN SCREW	911XX132	2
15	ARANDELA GROVER 8 INOX	STAINLESS 8 GROVER WASHER	910XX135	11
16	TORNILLO HEXAGONAL M8X30 INOX	STAINLESS M8X30 HEX SCREW	911XX125	3
17	ARANDELA DENTADA M3	STAINLESS 8 GROVER WASHER	910XX135	2
18	RACOR T CON OVALILLO TUBO 8 / SALIDA LATERAL TUBO Ø6	TUBE Ø6 LATERAL OUTPUT / TUBE 8 FITTING T WITH OVALILLO	918XX448	1
19	TUBO MODULO DESCARGA EC4 – EC8	EC4 - EC8 DOWNLOAD MODULE TUBE	918XX446	1
20	CASQUILLO CERÁMICO RESISTENCIA B PAIL	BPAIL CARTRIDGE HEATER CERAMIC BUSHING	913XX492	2
21	ARANDELA PLANA M4 INOX	M4 PLAIN WASHER STAINLESS	914XX330	6
22	TUERCA HEXAGONAL M4 INOX	HEXAGONAL NUT M4 STAINLESS	915XX159	6
23	TUBO IBERSIL SILICONA Ø8 NEGRO 2,5KV LONG 75MM	SILICONE PIPE Ø8 BLACK 2.5KV LEN 75MM		2
24	MAZO TERMOSTATO	THERMOSTAT	DEPENDING MODEL	1
25	MAZO SONDA TEMPERATURA	TEMPERATURE PROBE	DEPENDING MODEL	1
26	TERMINAL PALA REDONDA 340ºC M4 2,7-6,6MM	340ºC M4 2,7-6,6MM ROUND BLADE TERMINAL		2
27	TUBO ACOMETIDA BOMBA EC8 NEUMATICS	EC8 LF PUMP ADMISSION TUBE	DEPENDING MODEL	1
28	MAZO RESISTENCIA DEPOSTIO	TANK RESISTANCE	DEPENDING MODEL	1

Nº	BOMBA LF	BOMBA HF
26	918XX447	911XX577

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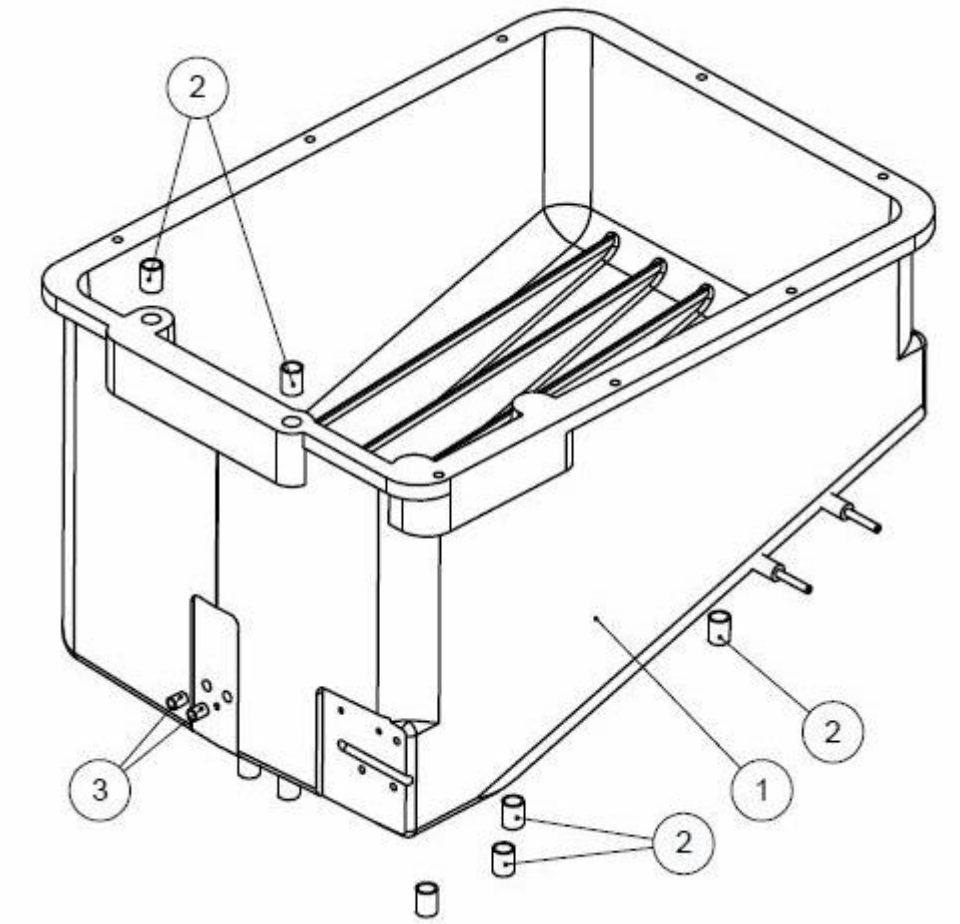
Kit deposito EC8 / EC8 tank kit (916XX749):



Nº	Descripción	Description	Qty
1	DEPOSITO EC8 MECANIZADO	EC MECHANIZED TANK	1
2	HELICOIL M8X12	M8X12 HELICOIL	10
3	HELICOIL M5X7,5	M5X7,5 HELICOIL	2

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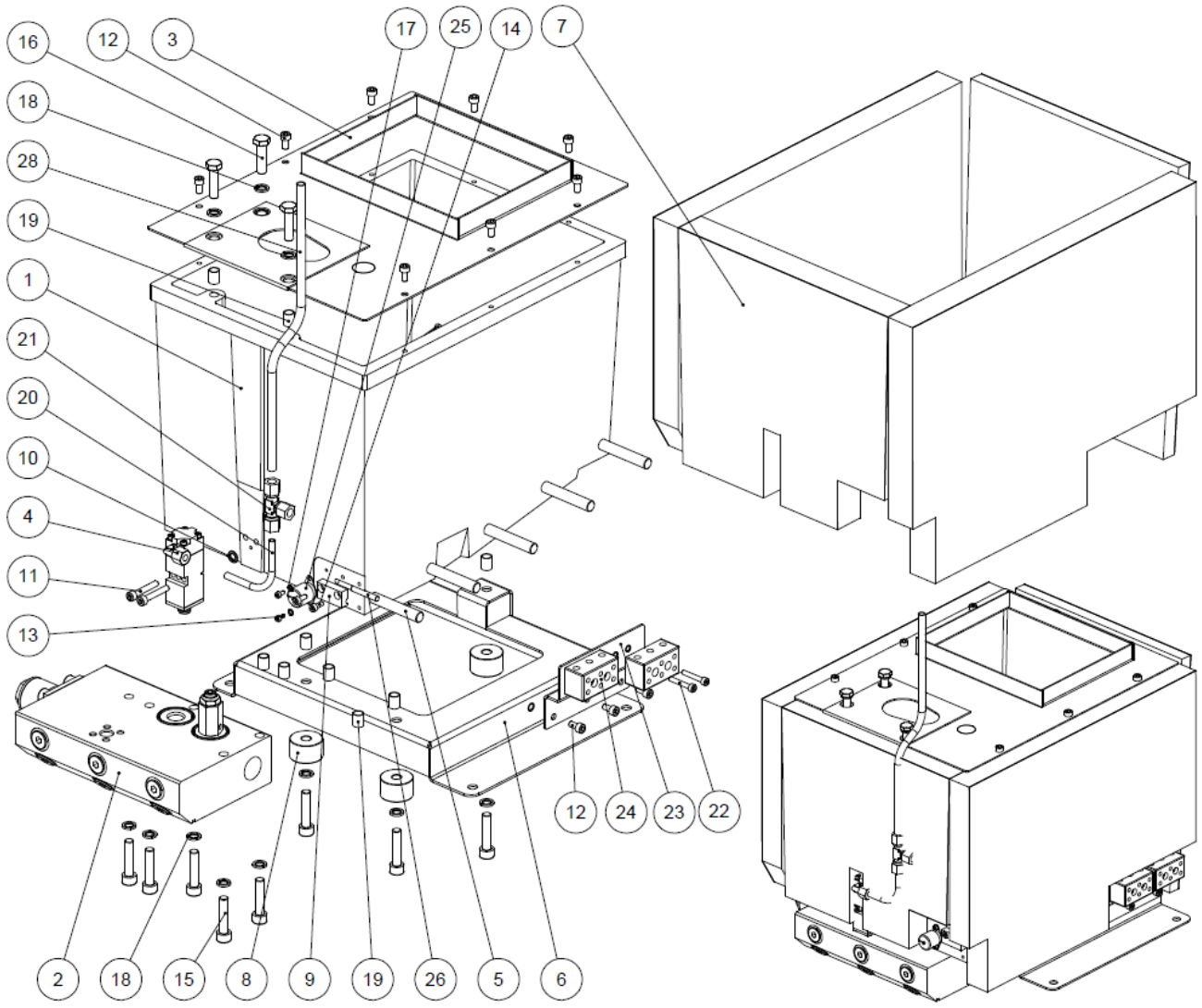
NC16



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Nº	Descripción	Description	Ref.	Qty
1	DEPOSITO 14 KG MECANIZADO EC	EC MECANIZED 14 KG TANK	917XX050	1
2	SUBCONJUNTO DISTRIBUIDOR SERIE EC	EC SERIES MANIFOLD ASSEMBLY	PAG 21	1
3	CHAPA BOCA DEPOSITO NC16	NC16 TANK TOP PLATE	911XX523	1
4	CONJUNTO MODULO DESCARGA	DOWNLOAD MODULE ASSEMBLY	919XX404	1
5	RESISTENCIA 10X220X800 W	10X220X800 W HEATER BAR	911XX144	5
6	SOPORTE DEPOSITO EC8	EC8 TANK SUPPORT	917XX055	1
7	KIT AISLAMIENTO DEPOSITO EC14	EC14 TANK INSULATION KIT	916XX834	1
8	AISLANTE PATA DEPOSITO	INSULATION TANK LEG	910XX072	3
9	BRIDA SONDA	SENSOR BRIDLE	914XX169	1
10	JUNTA TORICA VITON 7,65X1,78	7,65X1,78 VITON O´RING	910XX324	1
11	TORNILLO ALLEN 10-32 UNF 1-1/4” INOX	STAINLESS 10-32 UNF 1-1/4” ALLEN SCREW	912XX368	2
12	TORNILLO ALLEN M5X10 INOX.	STAINLESS M5X10 ALLEN SCREW	910XX968	11
13	TORNILLO ALLEN 3X6 INOX.	STAINLESS 3X6 ALLEN SCREW	911XX132	2
14	TORNILLO ALLEN M4X10 INOX.	STAINLESS M4X10 ALLEN SCREW	910XX129	2
15	TORNILLO ALLEN M8X35 INOX.	STAINLESS M8X35 ALLEN SCREW	915XX238	8
16	TORNILLO HEXAGONAL M8X30 INOX	STAINLESS M8X30 HEX SCREW	911XX125	3
17	ARANDELA DENTADA M3	STAINLESS 8 GROVER WASHER	910XX135	2
18	ARANDELA GROVER 8 INOX	STAINLESS 8 GROVER WASHER	910XX135	11
19	HELICOIL M8X12	M8X12 HELICOIL	915XX173	9
20	TUBO MODULO DESCARGA EC4 – EC8	EC4 - EC8 DOWNLOAD MODULE TUBE	918XX446	1
21	RACOR T CON OVALILLO TUBO 8 / SALIDA LATERAL TUBO Ø6	TUBE Ø6 LATERAL OUTPUT / TUBE 8 FITTING T WITH OVALILLO	918XX448	1
22	TORNILLO ALLEN M4X25 INOX.	STAINLESS M4X25 ALLEN SCREW	917XX407	4
23	SOPORTE REGLETAS DEPOSITO NC16	NC16 TANK SOCKET STRIPS SUPORT	911XX792	1
24	REGLETA CERAMICA 3P	3P CERAMIC SOCKET STRIPS	911XX791	2
25	MAZO TERMOSTATO	THERMOSTAT	DEPENDING MODEL	1
26	MAZO SONDA DE TEMPERATURA	TEMPERATURE PROBE		1
27	MAZO RESISTENCIA DEPOSITO NC16	NC16 TANK RESISTANCE		1
28	TUBO ACOMETIDA EC14 HF NUMATICS	EC14 HF NUMATICS ATTACK TUBE		1

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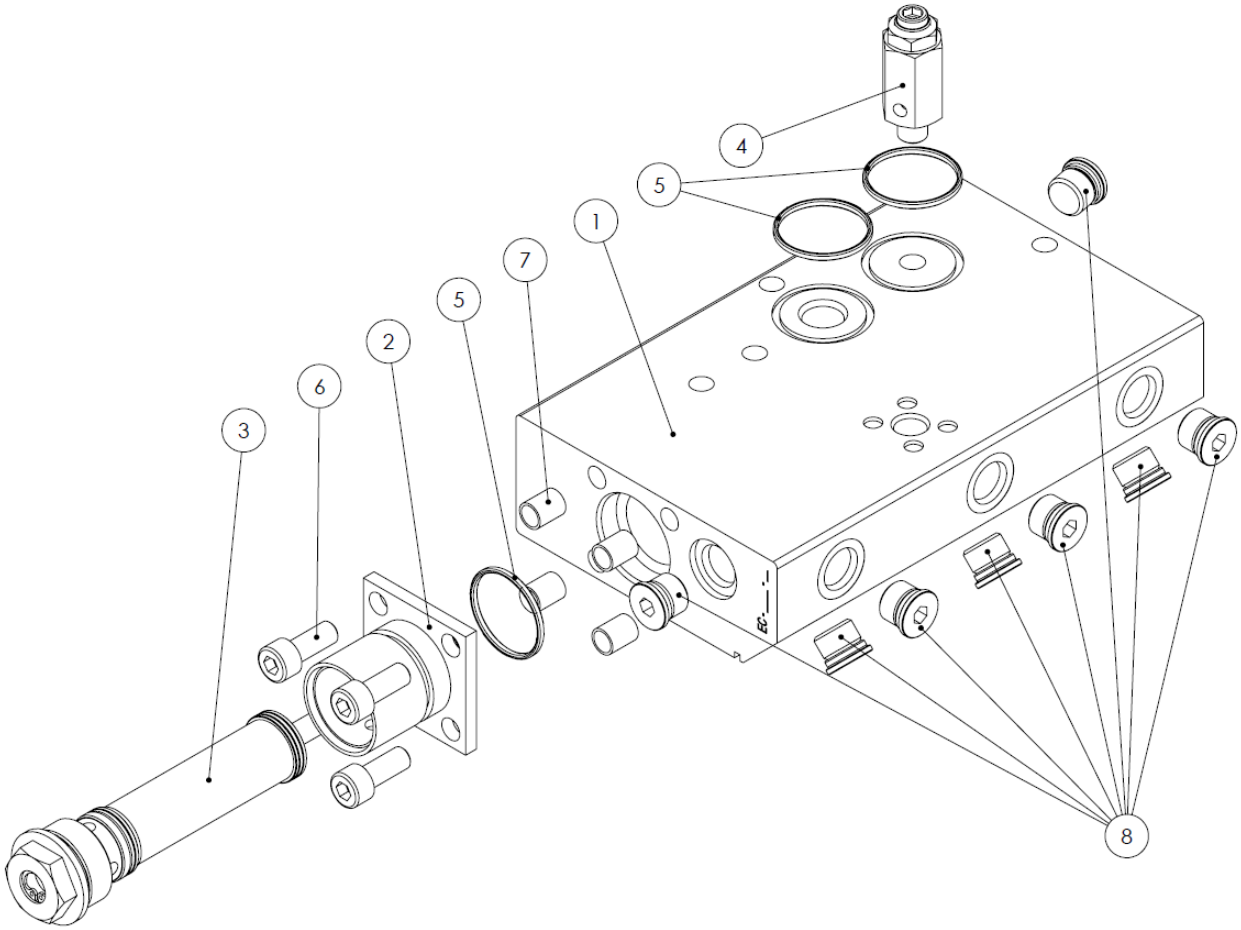
6.1. CONJUNTO DISTRIBUIDOR SERIE EC / EC SERIES MANIFOLD ASSEMBLY (916XX127):



Nº	Descripción	Description	Ref.	Qty
1	CUERPO DISTRIBUIDOR SERIE EC	EC SERIES MANIFOLD BODY	917XX094	1
2	BRIDA ROSCA FILTRO	FILTER THREADED BRIDLE	915XX820	1
3	SUBCONJUNTO FILTRO EC	EC FILTER ASSEMBLY	PAG 23	1
4	CONJUNTO VÁLVULA DE SEGURIDAD	SECURITY VALVE ASSEMBLY	PAG 24	1
5	JUNTA TORICA VITON 30X2	30X2 VITON O'RING	914XX090	3
6	TORNILLO ALLEN M8X20 INOX.	STAINLESS M8X20 ALLEN SCREW	915XX190	4
7	HELICOIL M8X12	M8X12 HELICOIL	915XX173	4
8	TAPÓN 9/16" CON JUNTA	9/16" PLUG W/GASKET	917XX031	8

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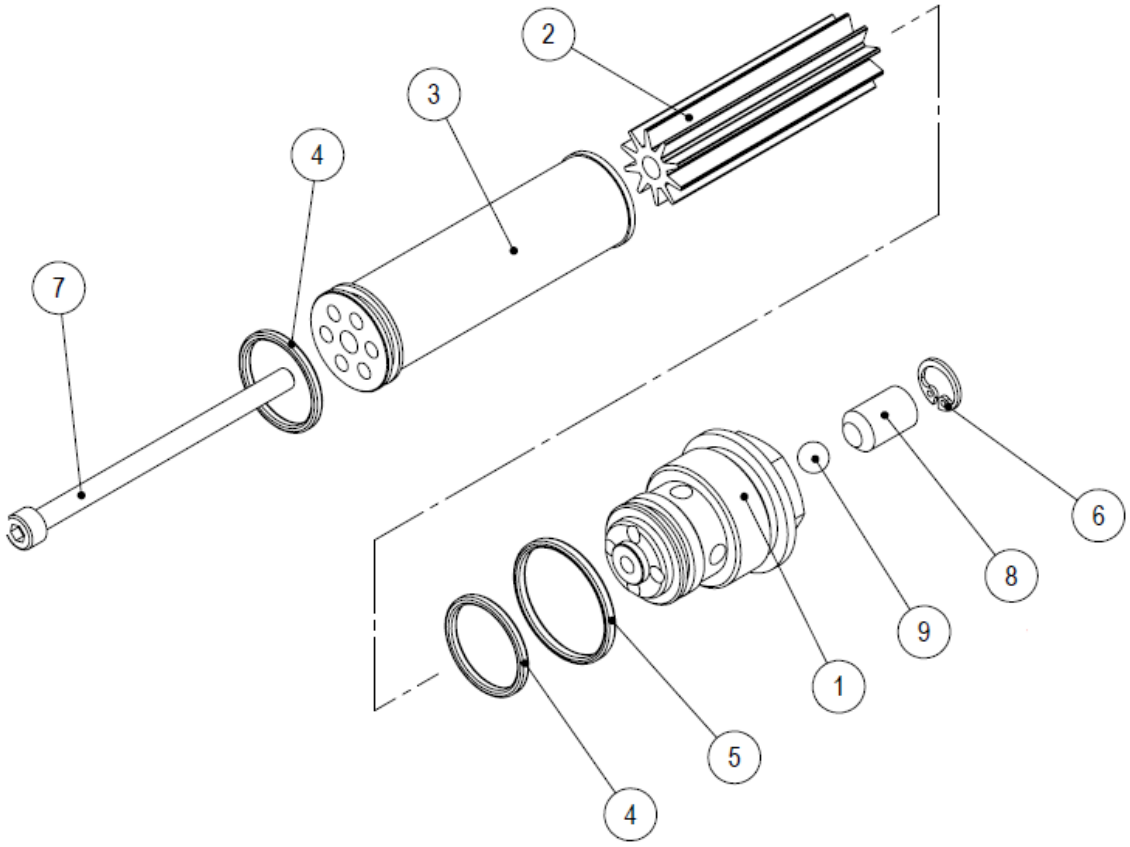
6.1.1. CONJUNTO FILTRO / FILTER ASSEMBLY: (916XX757)



Nº	*Descripción*	*Description*	*Ref.*	*Ref.*	*Qty*
1	TORNILLO FILTRO + TORN PURGADOR	FILTER SCREW + BLEEDER SCREW		917XX570	1
8	ESPARRAGO ROSCADO M10X16 INOX	STAINLESS M10X16 THREADED STUD	917XX571		1
9	BOLA 7 INOX	Ø7 BALL			1
6	ANILLO ELASTICO AGUJERO 12	HOLE 12 ELASTIC RING	910XX765		1
2	DISTANCIAL INTERIOR FILTRO EC/K	EC/K FILTER INTERNAL SPACER	917XX117		1
3	CARTUCHO FILTRO 0.23 EC/K	EC/K 0.23 FILTER CARTRIDGE	917XX119		1
4	JUNTA TORICA VITON 20X2	VITON O-RING Ø20X2	910XX047		2
5	JUNTA TORICA VITON 26X2	VITON O-RING Ø26X2	914XX177		1
7	TORNILLO ALLEN M5X80 INOX.	ALLEN SCREW M5X80 STAINLESS	917XX120		1

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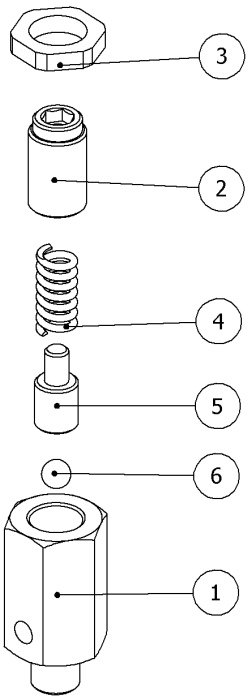
6.1.2. CONJUNTO VALVULA DE SEGURIDAD / SECURITY VALVE ASSEMBLY: (917XX087)



Nº	Descripción	Description	Ref.	Qty
1	CUERPO VÁLVULA	VALVE BODY	914XX097	1
2	CASQUILLO REGULADOR MUELLE	LOADING SCREW	910XX209	1
3	TUERCA TRASERA	RETAINING NUT	910XX208	1
4	MUELLE	SPRING	915XX388	1
5	PIVOTE CENTRAJE BOLA	SPRING MOUNT	910XX206	1
6	BOLA ACERO 6	6 STEEL BALL	914XX094	1

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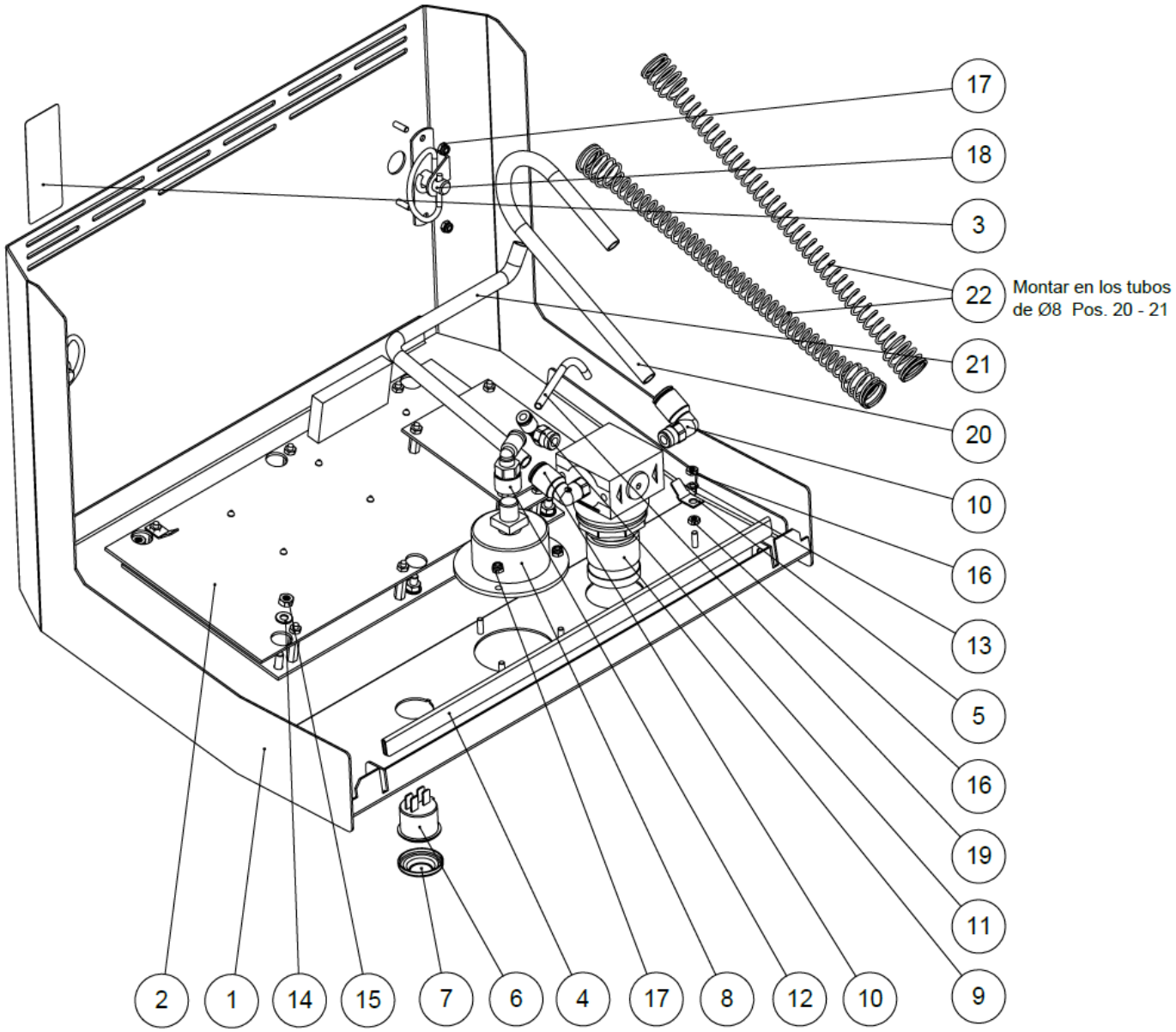
7. PANEL FRONTAL / FRONT PANEL ASSEMBLY:



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Nº	Descripción	Description	Ref.	Qty
1	PANEL FRONTAL NC	NC FRONT PANNEL	911XX526	1
2	TARJETA CONTROL	CONTROL BOARD NC	Depending model	1
3	PEGATINA RIESGO ELÉCTRICO	ELECTRIC RISK STICKER	917XX266	1
4	JUNTA LABIO INFERIOR PORTÓN DELANTERO	FRONT GATE BOTTOM LIP JOINT	913XX544	1
5	TERMINAL FASTON M-PANEL TE938	M-PANLE TE938 FASTON THERMINAL	915XX158	1
6	INTERRUPTOR REDONDO SERIE EC	EC SERIE ROUND SWITCH	918XX637	1
7	CUBIERTA INTERRUPTOR REDONDO	ROUND SWITCH COVER	918XX638	1
8	MANÓMETRO 0 A 6 CON MARCO	PRESSURE GAUGE 0-6 WITH FRAME	918XX849	1
9	REGULADOR TOMAS 1/8” 0-12 BAR	1/8” TOMAS PRESSURE REGULATOR	917XX268	1
10	RACOR 90º 1/8” E/R TUBO 8	1/8” TUBE 8 FITTING	988XX018	2
11	RACOR 90º 1/8” TUBO 4 E/R	1/8” TUBE 4 90º FITTING	943XX051	1
12	RACOR 90º HEMBRA 1/8” TUBO Ø4 ER	1/8" TUBE 4 90º FEMALE FITTING	914XX377	1
13	ARANDELA DENTADA M3	M3 TOOTHED WASHER	910XX397	1
14	ARANDELA PLANA M4	M4 PLAIN WASHER	914XX330	6
15	TUERCA HEXAGONAL M4 INOX.	STAINLESS M4 HEX NUT	915XX159	6
16	TUERCA HEXAGONAL M3 INOX.	STAINLESS M3 HEX NUT	914XX982	2
17	TUERCA HEXAGONAL AUTOBLOC. M3 DIN 985	HEXAGONAL AUTOBLOC.M3 DIN985 NUT	911XX326	7
18	CIERRE DE PRESION SOUTHCO	SOUTHCO PRESSURE CLOSING	914XX649	2
19	TUBO POLIURETANO 4X2.5 L=120MM	4X2.5 L=120MM POLYURETHANE TUBE	917XX269	1
20	TUBO POLIURETANO 8X5,5 L=220MM	8X5,5 L=220MM POLYURETHANE TUBE	918XX639	1
21	TUBO POLIURETANO 8X5,5 L=220MM	8X5,5 L=220MM POLYURETHANE TUBE	918XX639	1
22	MUELLE PROTECCION TUBOS	TUBE PROTECTION SPRING	912XX497	2

4 salidas	6 salidas
911XX527	911XX528

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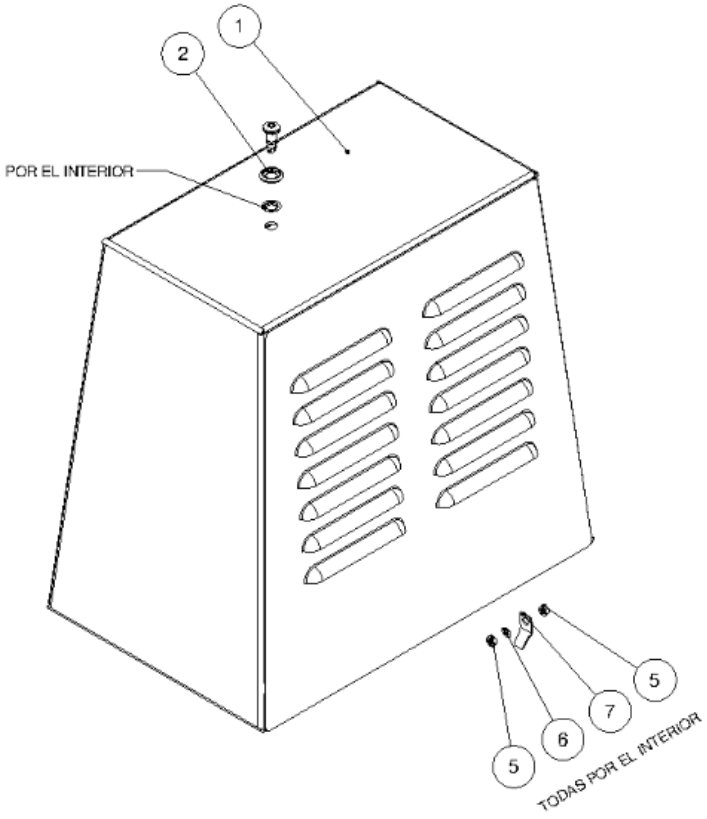
8. CONJUNTO CARCASA BOMBA / PUMP COVER ASSEMBLY:



Nº	Descripción	Description	Ref.	Qty.
1	CARCASA BOMBA NC	NC PUMP COVER	DEPENDING MODEL	1
2	ARANDELA TORNILLO CAUTIVO	WASHER CAPTIVE SCREW	914XX378	1
3	TORNILLO 1/4 VUELTA	1/4 SCREW	917XX263	1
4	RETÉN	SCREW RETAINER	917XX264	1
5	TUERCA HEXAGONAL M3 INOX	STAINLESS M3 HEX NUT	914XX982	2
6	ARANDELA DENTADA M3	M3 TOOTHED WASHER	910XX397	1
7	TERMINAL FASTON	FASTON TERMINAL	915XX158	1

NC4	NC8-NC16
911XX529	911XX530

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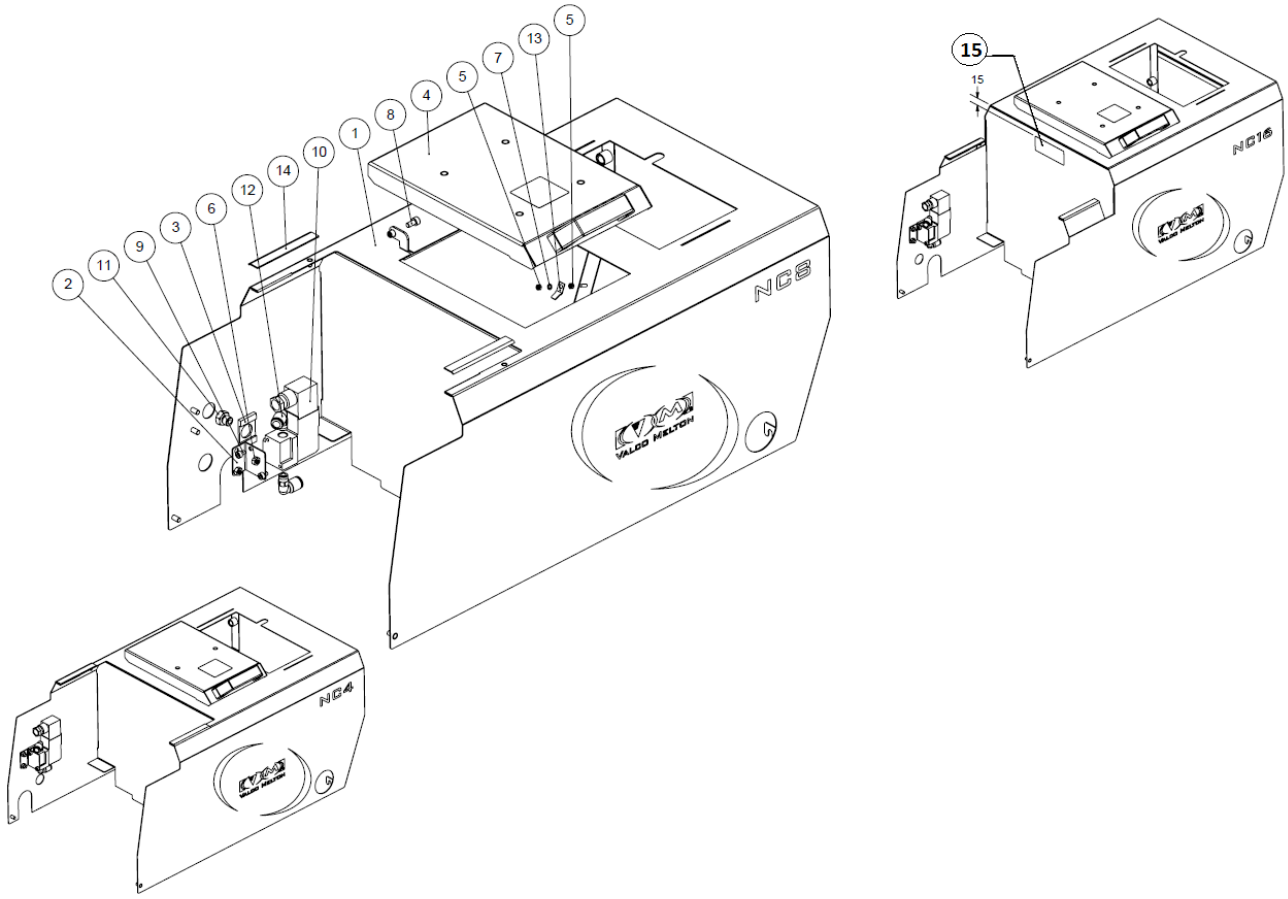
9. CONJUNTO CARCASA CENTRAL / CENTER HOUSING ASSEMBLY:



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Nº		Descripción	Description	Ref.	Qty
1		CARCASA CENTRAL	CENTER HOUSING	DEPENDING MODEL	1
2		SOPORTE ELCTROVALVULA	ELCTROVALVE SUPPORT	917XX283	1
3		JUNTA ESCAPE VALVULA	VALVE GASKET	917XX284	1
4		SUBCONJUNTO TAPA DEPOSITO NC	NC TANK LID ASSEMBLY	PAGE 29	1
5		TUERCA HEXAGONAL M3 INOX.	STAINLESS M3 HEX NUT	914XX982	2
6		TUERCA HEXAGONAL M5 INOX.	STAINLESS M5 HEXAGONAL NUT	910XX359	2
7		ARANDELA DENTADA M3	M3 TOOTHED WASHER	910XX397	1
8		TORNILLO ALLEN M5X10 INOX.	SCREW ALLEN M5X10 SS	910XX968	2
9		TORNILLO ALLEN M4X6 INOX.	SCREW ALLEN M4X6 SS	910XX981	2
10		ELECTROVALVULA 3/2-1/8-24V DC	3/2-1/8-24V DC SOLENOID	917XX285	1
11		SILENCIADOR NYLON NEGRO G1/8	G1/8" BLACK NYLON SILENCER	912XX456	1
12		RACOR 90º 1/8” E/R TUBO 8	AIR FITTING 1/8"-T8 90º	988XX018	2
13		TERMINAL FASTON M-PANEL TE938	M-PANEL TE938 FASTON THERMINAL	915XX158	1
14		JUNTA EURO-FOAM 150	150 EURO-FOAM JOINT	913XX244	2

Nº	NC4	NC8	NC16
1	911XX531	911XX532	911XX533

NOTA: Solo para NC16/ Only for NC16

Nº	Descripción	Description	Ref.	Qty.
15	PEGATINA ALTA TEMPERATURA FLEXMELT	FLEXMELT HIGH TEMPERATURE RISK BUMPER	913XX124	1

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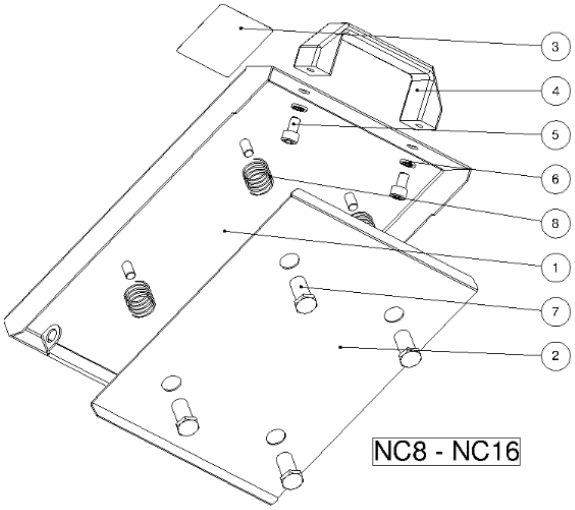
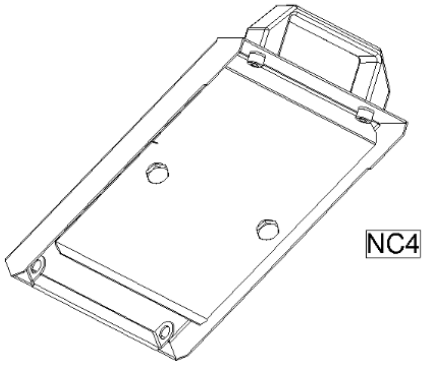
9.1 CONJUNTO TAPA DEPÓSITO/ TANK LID ASSEMBLY

NC8 and NC16 (912XX009)
NC4 (912XX010)





Nº		Descripción	Description	Ref.	Qty
1		TAPA DEPÓSITO	TANK LID	Depending modle	1
2		CONTRATAPA DEPÓSITO	TANK LID BASE		1
3		PEGATINA RIESGO ALTA TEMPERATURA V1	HIGH TEMPERATURE RISK STICKER	917XX212	1
4		ASA PEQUEÑA NEGRA CIEGA	BLACK SMALL HANDLE	917XX338	1
5		TORNILLO ALLEN M6X10 INOX.	SCREW ALLEN M6X10 SS	915XX082	2
6		ARANDELA GROVER M6 INOX.	WASHER GROWER M6 SS	915XX163	2
7		TUERCA CONTRATAPA	BACH COVER NUT	917XX259	Depending model
8		MUELLE TAPA DEPÓSITO	TANK LID SPRING	914XX333	

Nº	NC4	NC8-NC16
1	911XX534	911XX536
2	914XX146	915XX297

Nº	NC4	NC8-NC16
7	2	4
8		

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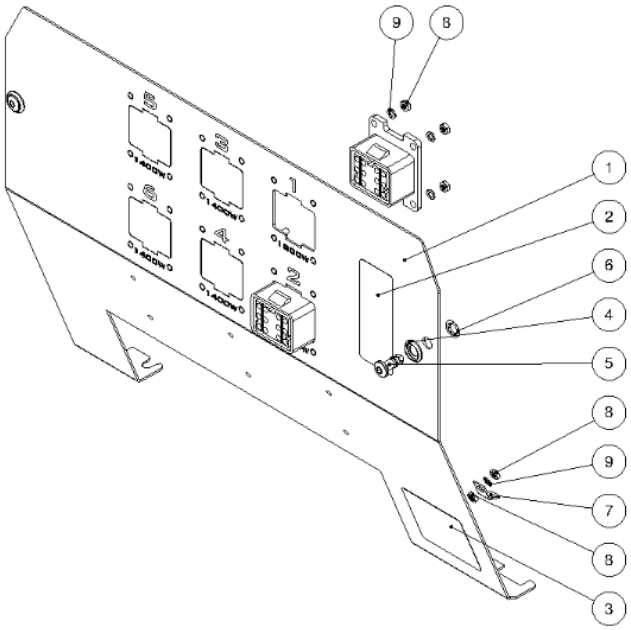
10. CONJUNTO PANEL TRASERO / REAR PANEL COVER ASSEMBLY:



Nº	Descripción	Description	Ref.	Qty.
1	PANEL TRASERO NC	NC REAR PANEL	911XX535	1
2	PAGATINA RIESGO ELECTRICO V1	ELECTRIC RISK STICKER	900XX190	1
3	PEGATINA RIESGO ALTA TEMPERATURA V1	HIGH TEMPERATURE RISK STICKER	917XX212	1
4	ARANDELA TORNILLO CAUTIVO	WASHER CAPTIVE SCREW	914XX378	2
5	TORNILLO 1/4 VUELTA SOUTHCO	1/4 SOUTHCO SCREW	917XX263	2
6	RETEN SOUTCHO	SOUTHCO SCREW RETAINER	917XX264	2
7	TERMINAL FASTON	FASTON TERMINAL	915XX158	1
8	TUERCA HEXAGONAL M3 INOX	STAINLESS M3 HEX NUT	914XX982	DEPENDING MODEL
9	ARANDELA DENTADA M3	M3 TOOTHED WASHER	910XX397	

Salidas / Outputs	2 SALIDAS	4 SALIDAS	6 SALIDAS
8	10	18	26
9	9	17	25

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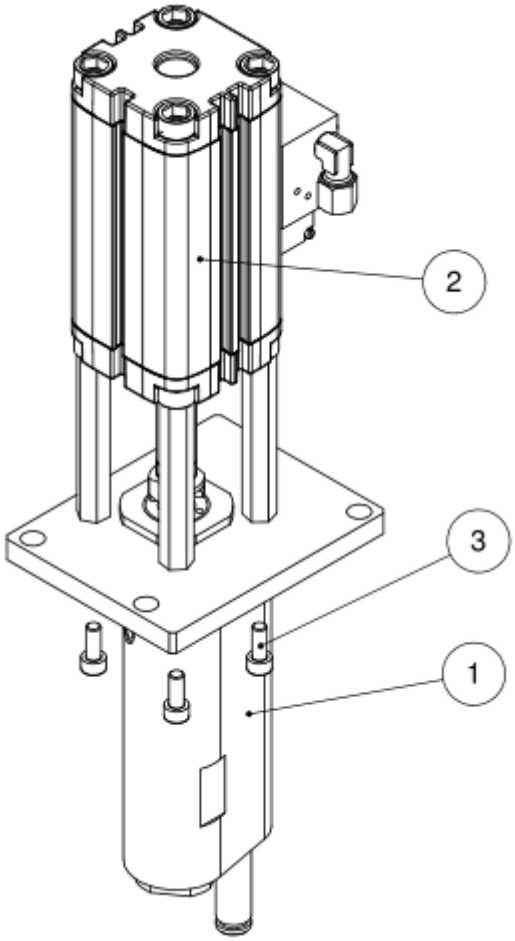
11. CONJUNTO BOMBA/ PUMP ASSEMBLY

11. A) CONJUNTO BOMBA LF / PUMP ASSEMBLY LF (916XX656):



Nº	Descripción	Description	Ref.	Qty
1	SUBCONJUNTO GRUPO HIDRÁULICO	HYDRAULIC GROUP ASSEMBLY	PAGE 33	1
2	SUBCONJUNTO CILINDRO NEUMÁTICO	PNEUMATIC CYLINDER ASSEMBLY	PAGE 32	1
3	TORNILLO ALLEN M6X15 INOX.	STAINLESS M6X15 ALLEN SCREW	915XX090	4

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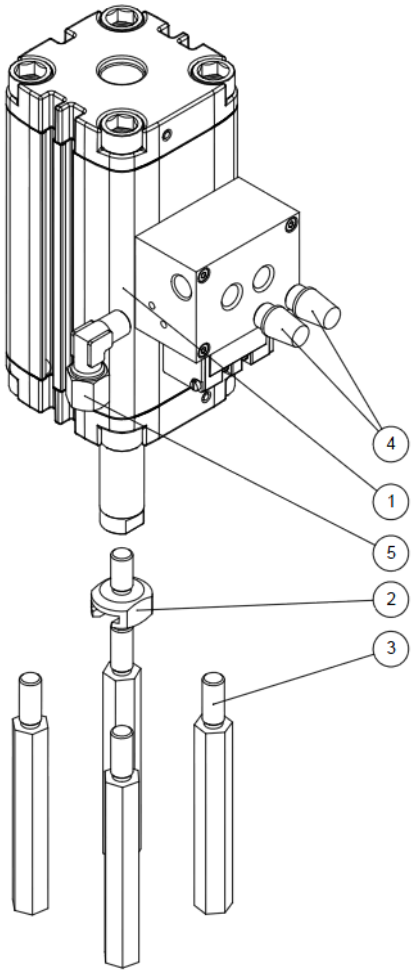
11.1.A) CONJUNTO CILINDRO LF NMT / LF NMT CYLINDER ASSEMBLY (913XX331)



Nº	*Descripción*	*Description*	*Ref.*	*Qty*
1	CILINDRO Ø50 ALTA TEMPERATURA NMT	NMT Ø50 HIGH TEMPERATURE CYLINDER	913XX586	1
2	ROTULA CILINDRO VALCO NITRURADO GASEOSO	VALCO CYLINDER KNEECAP	915XX374	1
3	DISTANCIAL CILINDRO K LF NMT	K LF NMT CYLINDER SPACER	913XX890	4
4	SILENCIADOR LARGO G1/8-B	G1/8-B LARGE SILENCER	914XX041	2
5	RACOR 90º R1/8 / ER8-BN	90º FITTING R1/8 / ER8-BN		1

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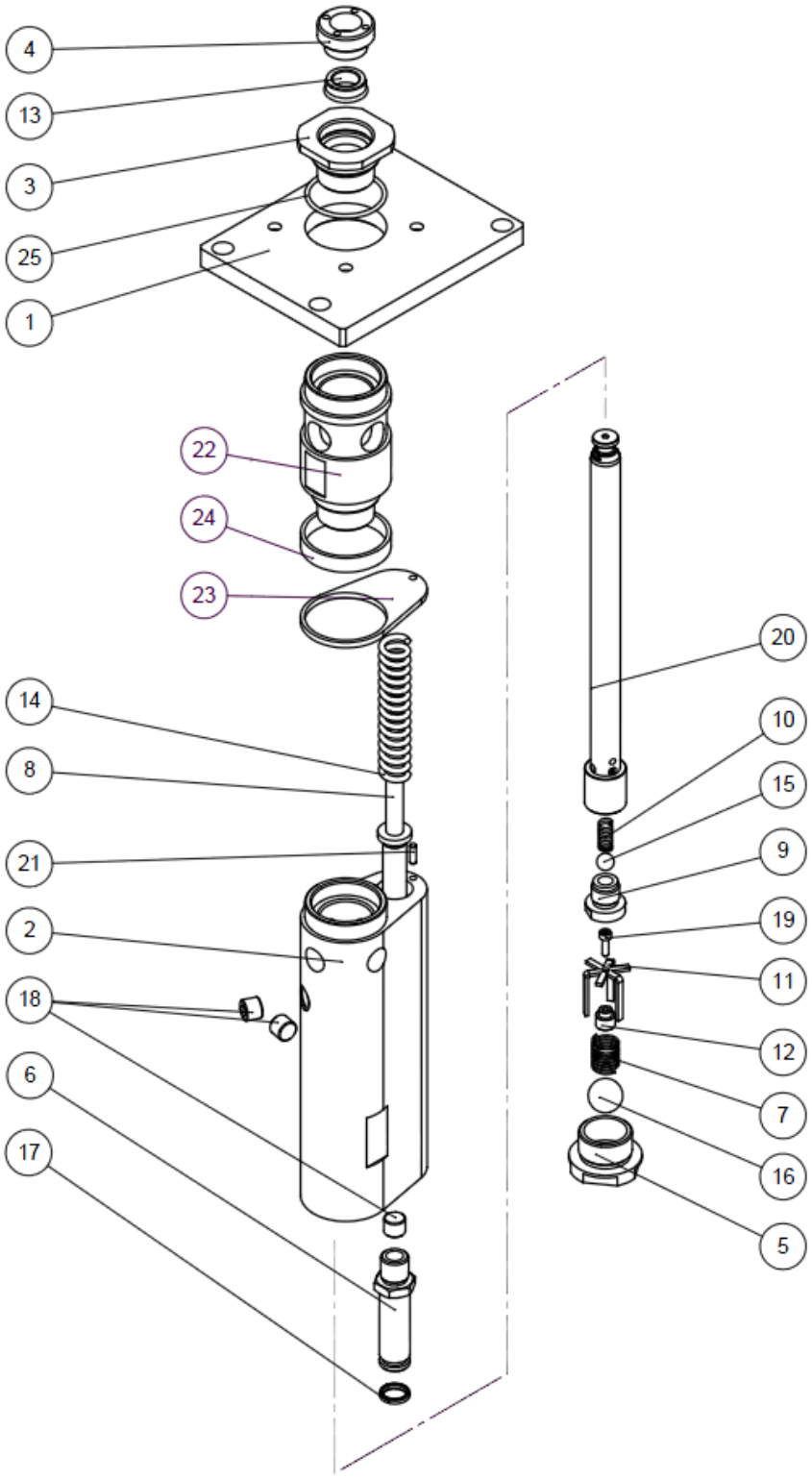
11.2.A) CONJUNTO GRUPO HIDRAULICO LF / LF HYDRAULIC GROUP ASSEMBLY (916XX758):



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Nº	Descripción	Description	Ref.		Qty
1	PLACA BASE BOMBA K / C4 – L – V1	K / C4 – L – V1 PUMP BASE PLATE	917XX123		1
2	CUERPO BOMBA LF – V1	LF – V1 PUMP BODY	917XX186		1
3	TORNILLO PORTAJUNTA BOMBA LF	LF PUMP SEAL SCREW	915XX468	919XX328	1
4	TUERCA PORTAJUNTA BOMBA LF	LF PUMP SEAL NUT	915XX471		5
13	JUNTA COLLARÍN EJE BOMBA	AXLE PUMP VARISEAL	915XX467		1
5	VÁLVULA ASPIRACIÓN	ASPIRATION VALVE	914XX034	916XX327	1
7	MUELLE VÁLVULA ASPIRACIÓN	ASPIRATION VALVE SPRING	914XX032		3
11	GUÍA BOLA VÁLVULA ASPIRACIÓN	ASPIRATION VALVE BALL GUIDE	914XX031		1
12	TOPE BOLA VÁLVULA ASPIRACIÓN	ASPIRATION VALVE BALL LIMIT	914XX938		1
16	BOLA 16	16 BALL	910XX119		1
19	TORNILLO ALLEN M3X10 INOX	STAINLESS M3X10 ALLEN SCREW	910XX084		1
6	TUBO IMPULSIÓN	IMPULSION TUBE	914XX024	914XX024	2
17	JUNTA TORICA VITON 10X2	10X2 VITON O'RING	914XX025		2
8	EJE GUÍA VÁLVULA COMPENSACIÓN	COMPENSATION VALVE AXLE GUIDE	914XX022		8
9	VÁLVULA COMPRESIÓN	COMPRESSION VALVE	914XX030		2
10	MUELLE VÁLVULA COMPRESIÓN	COMPRESSION VALVE SPRING	914XX028		1
14	MUELLE 8X16X76 ROJO	RED 8X16X76 SPRING	910XX407		2
15	BOLA 8	8 BALL	910XX122		8
18	TAPÓN 1/8" GAS BSP	1/8" GAS BSP PLUG	910XX001		3
20	EJE BOMBA LF EC4 - EC8	EC4 – EC8 LF PUMP AXLE	917XX187		11
	EJE BOMBA LF EC14	EC14 LF PUMP AXLE	917XX188		9
21	PASADOR CILÍNDRICO 3X10	3X10 CYLINDER PIN	910XX581		1
25	JUNTA TÓRICA VITÓN 34X2	VITON O RING 34X2	911XX725		1

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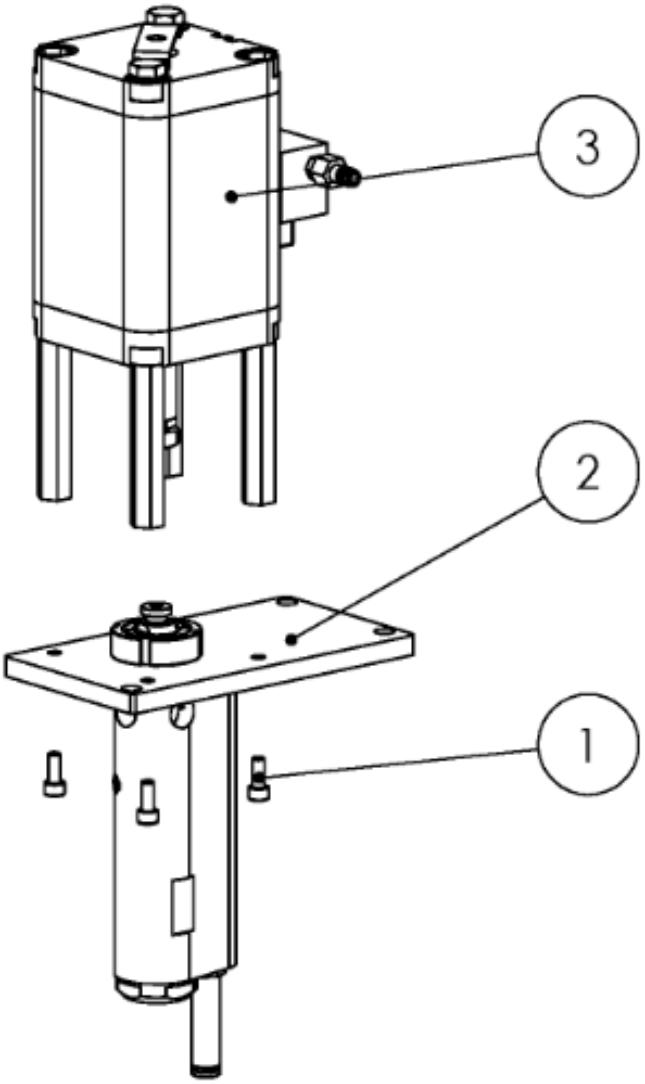
11. B) CONJUNTO BOMBA HF / PUMP ASSEMBLY HF:

NC8 HF (916XX839)
NC16 HF (916XX838)
NC16 HF WITH REINFORCED SPRING (911XX621)



Nº	Descripción	Description	Ref.	Qty
1	SUBCONJUNTO CILINDRO NEUMÁTICO	PNEUMATIC CYLINDER ASSEMBLY	PAGE 36	1
2	SUBCONJUNTO GRUPO HIDRÁULICO	HYDRAULIC GROUP ASSEMBLY	PAGE 37/39/41	1
3	TORNILLO ALLEN M6X15 INOX.	STAINLESS M6X15 ALLEN SCREW	915XX090	4

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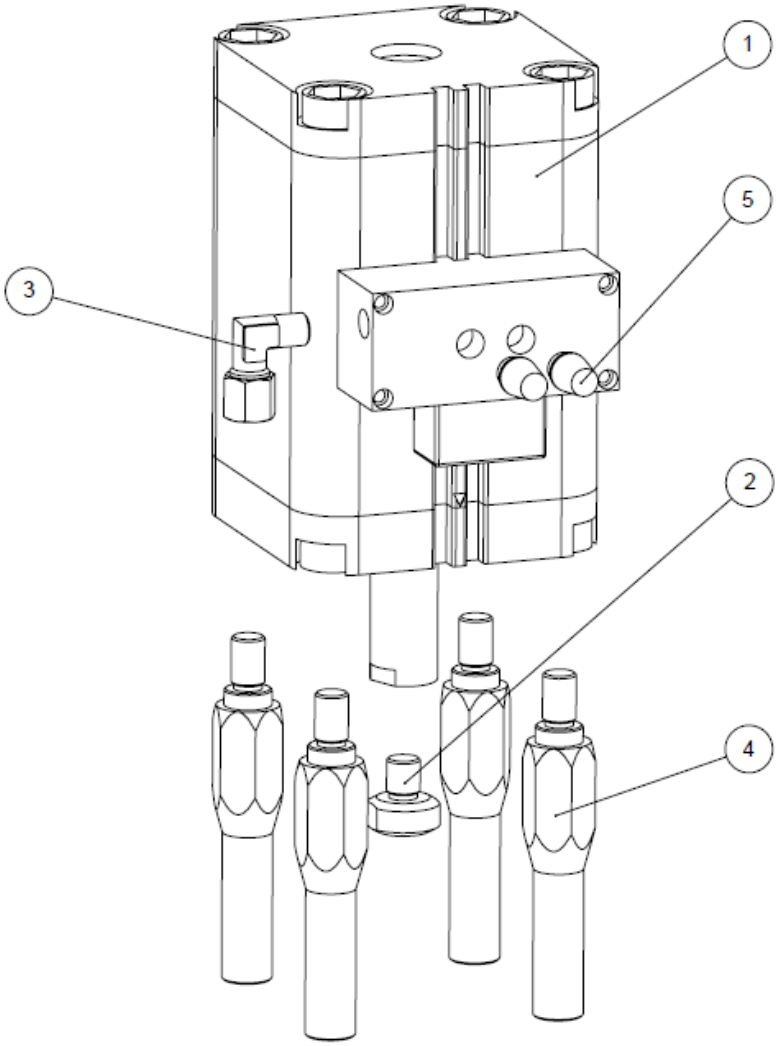
11.1. B) CONJUNTO CILINDRO HF / HF CYLINDER ASSEMBLY (900XX116)



Nº	Descripción	Description	Ref.	Qty
1	CILINDRO Ø80 NMT	CYLINDER ASSEMBLY Ø80 EC SERIES HF NMT	911XX541	1
2	ROTULA CILINDRO G VALCO	ROTULA CILINDER G VALCO	910XX588	1
3	RACOR 90º 1/8-TUBO 8	FITTING 90º 3/8"		1
4	DISTANCIAL CILINDRO HF NMT	HF NMT CYLINDER SPACER	900XX112	4
5	SILENCIADOR 1/8” GAS	SILENCER 1/8" GAS	914XX041	2

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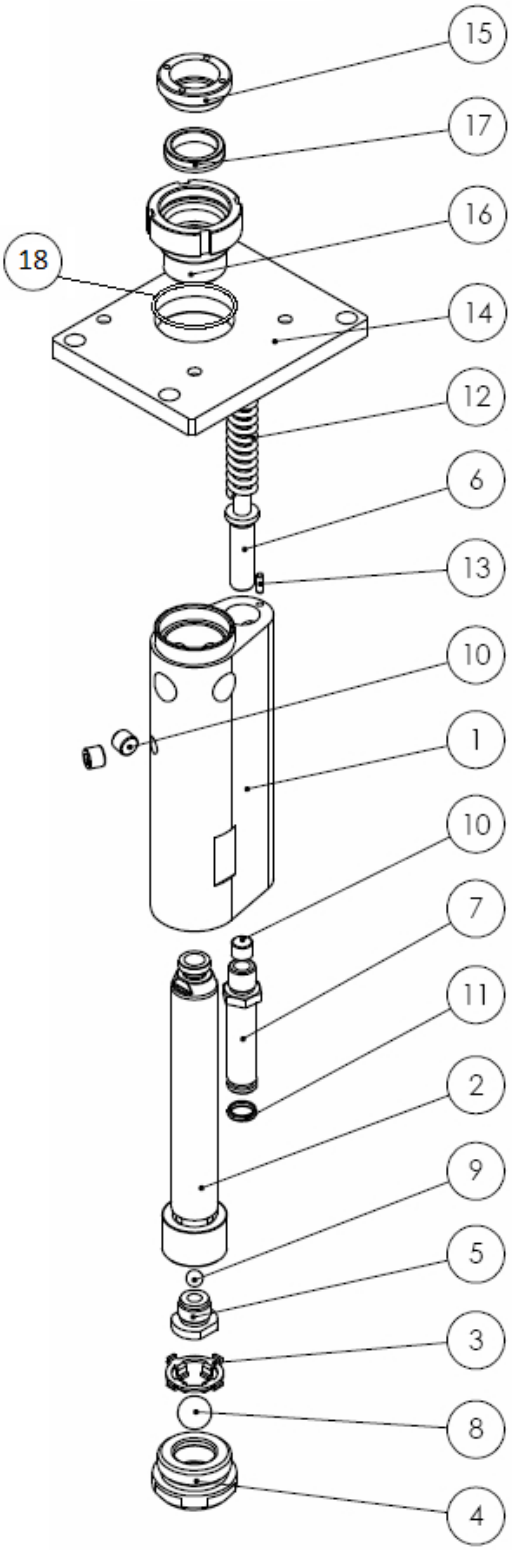
11.2.B) CONJUNTO GRUPO HIDRAULICO HF / HF HYDRAULIC GROUP ASSEMBLY:

NC8 HF (911XX622)



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Nº	Descripción	Description	Ref.		Qty
1	CUERPO BOMBA	PUMP BODY	910XX579		1
2	EJE BOMBA HF EC8	EC8 HF PUMP AXLE	910XX580		1
3	SOPORTE BOLA ASPIRACIÓN	ASPIRATION BALL SUPPORT	910XX120		1
4	VÁLVULA ASPIRACIÓN	ASPIRATION VALVE	910XX118	916XX281	1
8	BOLA 16	16 BALL	910XX119		1
5	VÁLVULA COMPRESIÓN	COMPRESSION VALVE	910XX121		1
6	EJE GUÍA VÁLVULA COMPENSACIÓN	COMPENSATION VALVE AXLE GUIDE	914XX022		1
7	TUBO IMPULSIÓN	IMPULSION TUBE	910XX990		1
9	BOLA 8	8 BALL	910XX122		1
10	TAPÓN 1/8” GAS BSP	1/8” GAS BSP PLUG	910XX001		3
11	JUNTA TORICA VITON 10X2	10X2 VITON O'RING	914XX025		1
12	MUELLE 8X16X76 ROJO	RED 8X16X76 SPRING	910XX407		1
13	PASADOR CILÍNDRICO 3X10	3X10 CYLINDER PIN	910XX581		1
14	PLACA BASE BOMBA	PUMP BASE PLATE	911XX740		1
15	TUERCA PORTAJUNTA BOMBA	PUMP SEAL NUT	915XX502		1
16	TORNILLO PORTAJUNTA BOMBA	PUMP SEAL SCREW	915XX503	910XX088	1
17	JUNTA COLLARÍN EJE BOMBA	AXLE PUMP VARISEAL	915XX504		1
18	JUNTA TÓRICA VITON 34X2	34X2 VITON O-RING	911XX725		1

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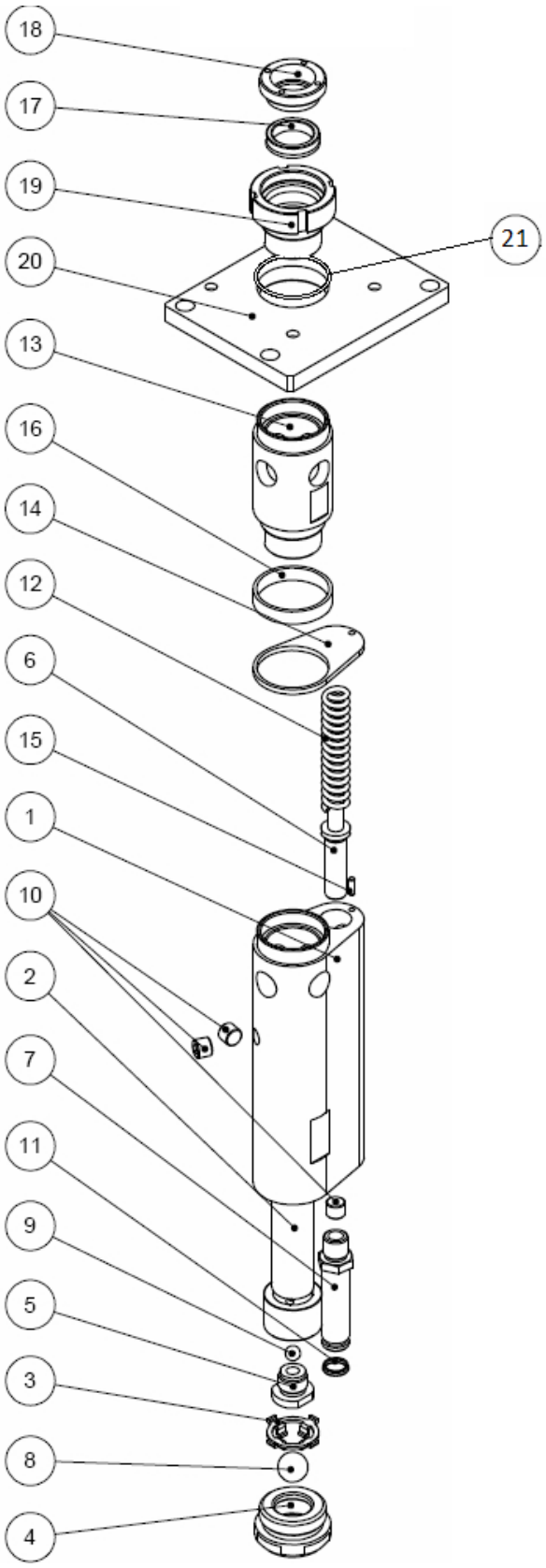
NC16 HF (911XX623)



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Nº	Descripción	Description	Ref.		Qty
1	CUERPO BOMBA	PUMP BODY	910XX579		1
2	EJE BOMBA HF EC14	EC14 HF PUMP AXLE	910XX582		1
3	SOPORTE BOLA ASPIRACIÓN	ASPIRATION BALL SUPPORT	910XX120		1
4	VÁLVULA ASPIRACIÓN	ASPIRATION VALVE	910XX118	916XX281	1
8	BOLA 16	16 BALL	910XX119		1
5	VÁLVULA COMPRESIÓN	COMPRESSION VALVE	910XX121		1
6	EJE GUÍA VÁLVULA COMPENSACIÓN	COMPENSATION VALVE AXLE GUIDE	914XX022		1
7	TUBO IMPULSIÓN	IMPULSION TUBE	910XX990		1
9	BOLA 8	8 BALL	910XX122		1
10	TAPÓN 1/8” GAS BSP	1/8” GAS BSP PLUG	910XX001		3
11	JUNTA TÓRICA VITON 10X2	10X2 VITON O’RING	914XX025		1
12	MUELLE 8X16X76 ROJO	RED 8X16X76 SPRING	910XX407		1
13	DISTANCIAL CUERPO BOMBA	PUMP BODY SPACER	910XX583		1
14	TAPA MUELLE BOMBA	PUMP SPRING COVER	910XX584		1
15	PASADOR CILÍNDRICO 3X10	3X10 CYLINDER PIN	910XX581		1
16	ANILLO DISTANCIAL	SPACER RING	910XX585		1
17	JUNTA COLLARÍN EJE BOMBA	AXLE PUMP VARISEAL	915XX504		1
18	TUERCA PORTAJUNTA BOMBA	PUMP SEAL NUT	915XX502	910XX088	1
19	TORNILLO PORTAJUNTA BOMBA	PUMP SEAL SCREW	915XX503		1
20	PLACA BASE BOMBA	PUMP BASE PLATE	911XX740		1
21	JUNTA TORICA VITON 34X2	34X2 VITON O-RING	911XX725		1

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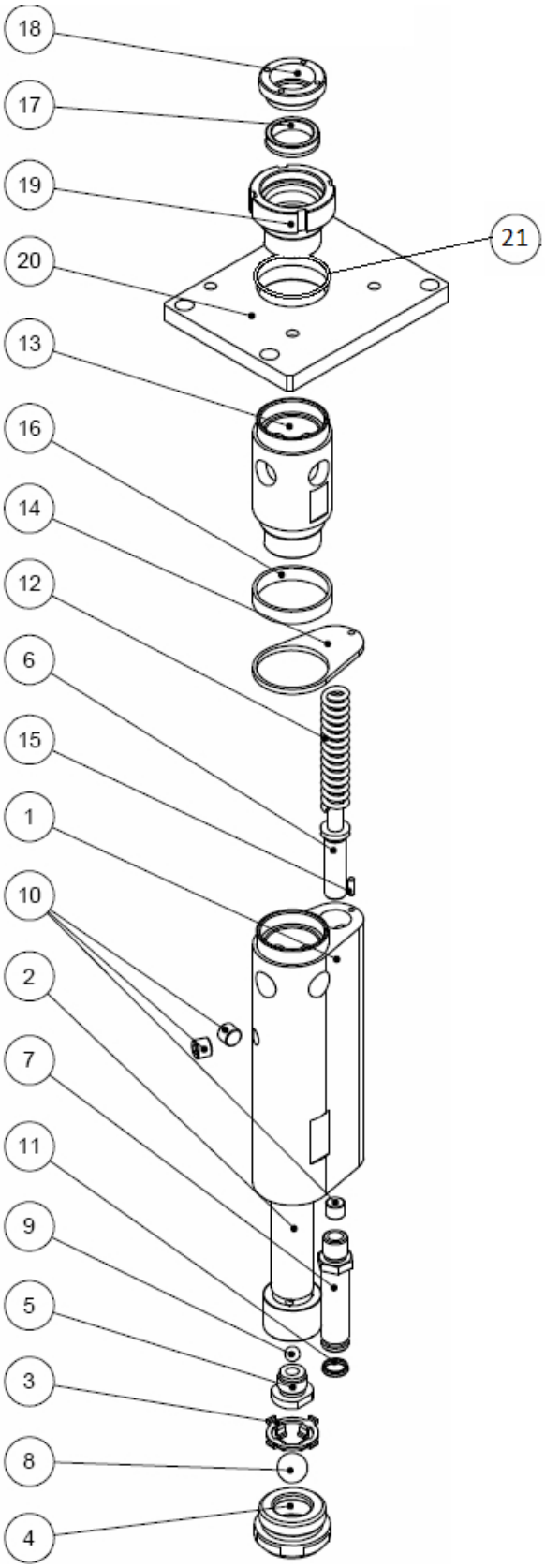
NC16 HF WITH REINFORCED SPRING (911XX624)



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Nº	Descripción	Description	Ref.		Qty
1	CUERPO BOMBA MUELLE REFORZADO	REINFORCED SPRING PUMP BODY	913XX581		1
2	EJE BOMBA HF EC14	EC14 HF PUMP AXLE	910XX582		1
3	SOPORTE BOLA ASPIRACIÓN	ASPIRATION BALL SUPPORT	910XX120		1
4	VÁLVULA ASPIRACIÓN	ASPIRATION VALVE	910XX118	916XX281	1
8	BOLA 16	16 BALL	910XX119		1
5	VÁLVULA COMPRESIÓN	COMPRESSION VALVE	910XX121		1
6	EJE GUÍA VÁLVULA COMPENSACIÓN	COMPENSATION VALVE AXLE GUIDE	914XX022		1
7	TUBO IMPULSIÓN	IMPULSION TUBE	910XX990		1
9	BOLA 8	8 BALL	910XX122		1
10	TAPÓN 1/8” GAS BSP	1/8” GAS BSP PLUG	910XX001		3
11	JUNTA TÓRICA VITON 10X2	10X2 VITON O’RING	914XX025		1
12	MUELLE 8X16X76 AMARILLO	YELLOW 8X16X76 SPRING	913XX572		1
13	DISTANCIAL CUERPO BOMBA	PUMP BODY SPACER	910XX583		1
14	TAPA MUELLE REFORZADO BOMBA	PUMP REINFORCED SPRING COVER	913XX583		1
15	TORNILLO ALLEN M4X10 INOX.	STAINLESS ALLEN SCREW M4X10	910XX129		1
16	ANILLO DISTANCIAL	SPACER RING	910XX585		1
17	JUNTA COLLARÍN EJE BOMBA	AXLE PUMP VARISEAL	915XX504		1
18	TUERCA PORTAJUNTA BOMBA	PUMP SEAL NUT	915XX502	910XX088	1
19	TORNILLO PORTAJUNTA BOMBA	PUMP SEAL SCREW	915XX503		1
20	PLACA BASE BOMBA	PUMP BASE PLATE	911XX740		1
21	JUNTA TORICA VITON 34X2	34X2 VITON O-RING	911XX725		1

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S035010201
NC04/NC08 (1-4S) NI120

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COVER PAGE

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

SCHEME 01

1-Document book

Drawing	Function	Location	Revision	Date	Created by	Description
01	F1	P1	0	25/03/2015	mayestaran	Cover page
02	F1	P1	0	25/03/2015	mayestaran	Drawing list
03	F1	P1	0	25/03/2015	mayestaran	Wiring line diagram
04	F1	P1	0	25/03/2015	mayestaran	SERVICE WIRES
05	F1	P1	0	25/03/2015	mayestaran	POWER SUPPLY
06	F1	P1	0	25/03/2015	mayestaran	POWER OUTPUTS
07	F1	P1	0	26/03/2015	mayestaran	RTD
08	F1	P1	0	27/03/2015	mayestaran	Electrical cabinet
09	F1	P8	0	27/03/2015	mayestaran	Front panel
10	F1	P1	0	30/03/2015	mayestaran	Bill of materials
11	F1	P1	0	30/03/2015	mayestaran	Bill of materials
12	F1	P1	0	30/03/2015	mayestaran	List of wires
13	F1	P1	0	30/03/2015	mayestaran	List of wires
14	F1	P1	0	30/03/2015	mayestaran	List of the cables
15	F1	P1	0	30/03/2015	mayestaran	List of cable strands
16	F1	P1	0	30/03/2015	mayestaran	List of cable strands
17	F1	P1	0	30/03/2015	mayestaran	List of cable strands

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DRAWING LIST

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

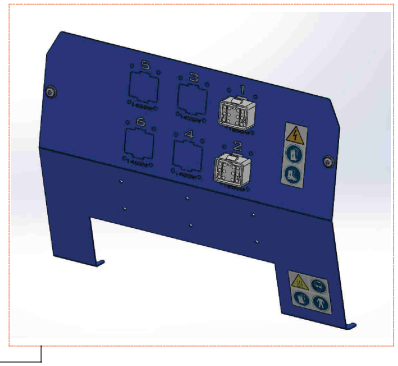
REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

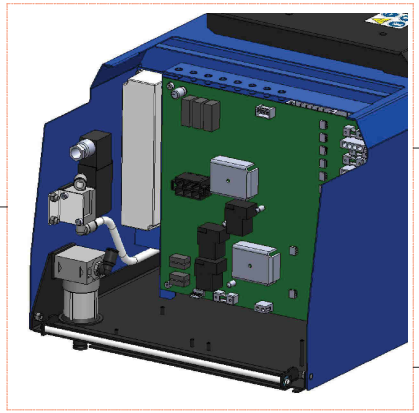
SCHEME 02

1	2	3	4	5	6	7	8	9	10

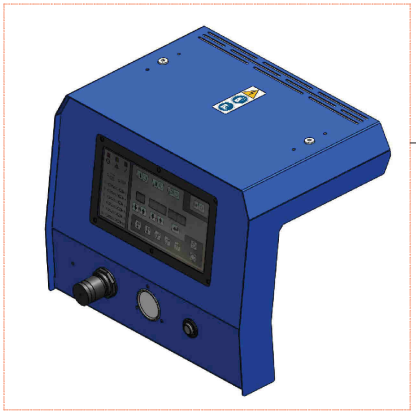
+P3 - Connectors plate



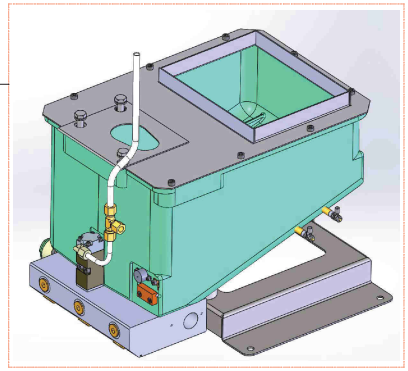
+P1 - Electrical cabinet



+P8 - Front panel



+P2 - Tank



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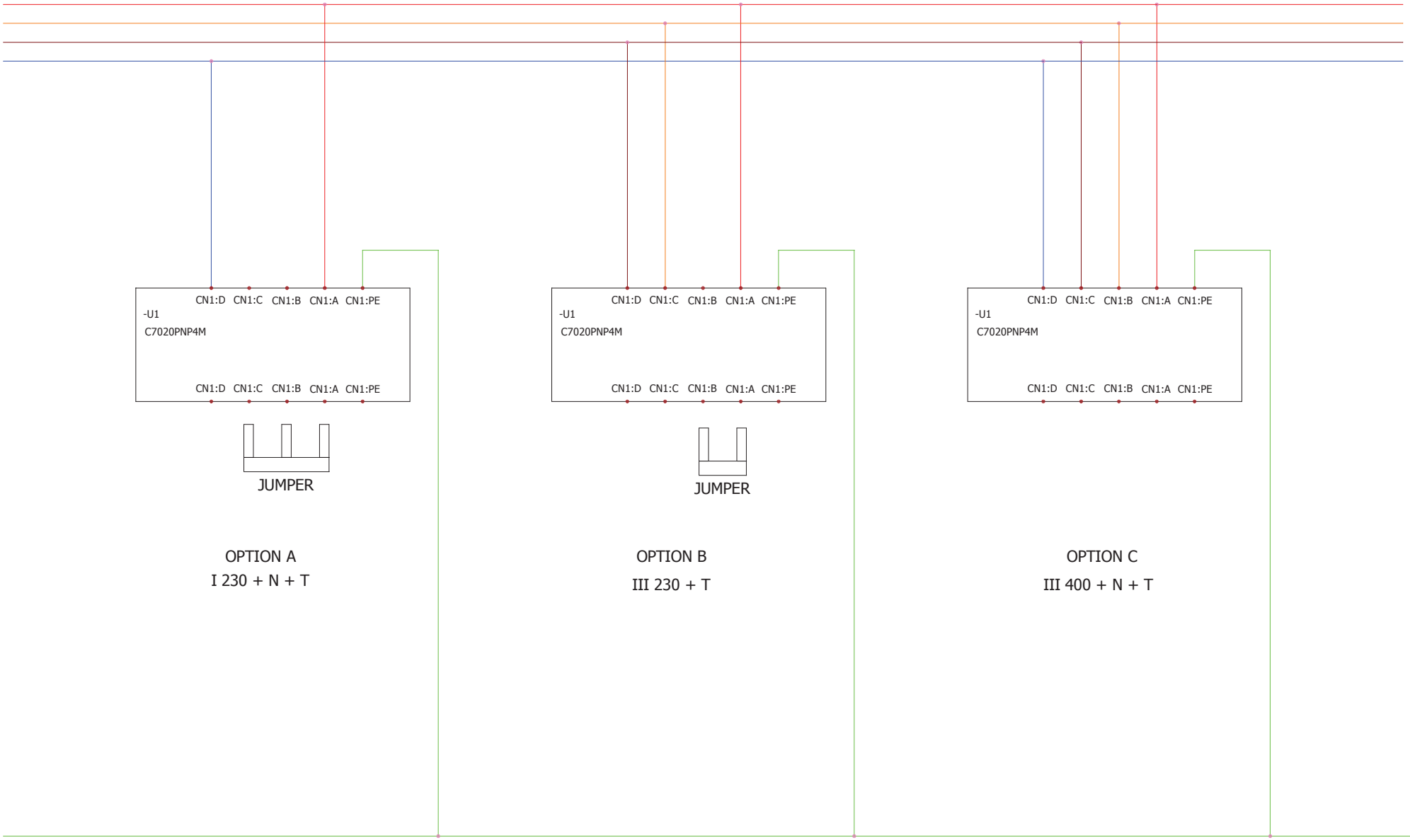
WIRING LINE DIAGRAM

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

SCHEME 03



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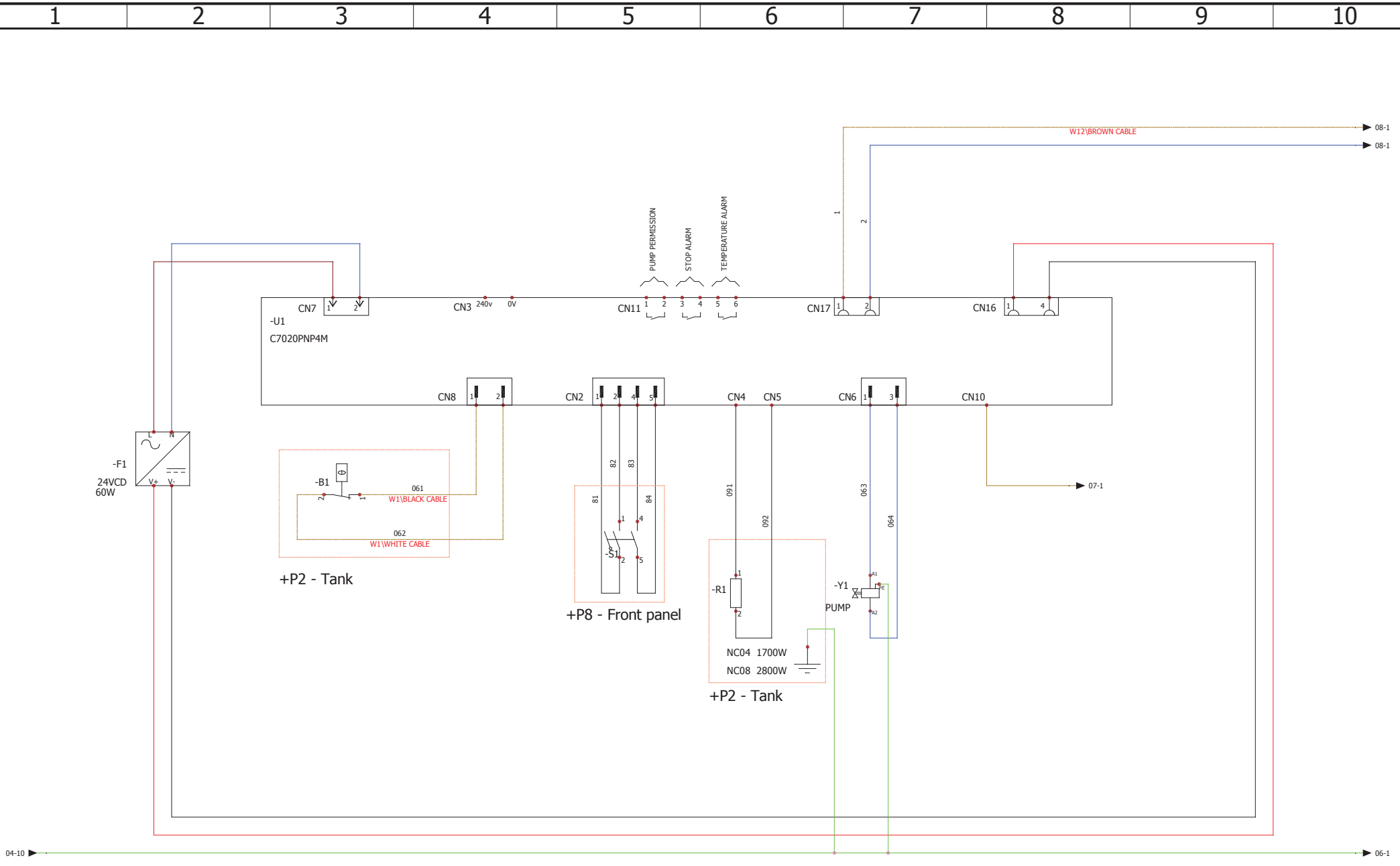
SERVICE WIRES CONNECTION

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

SCHEME 04



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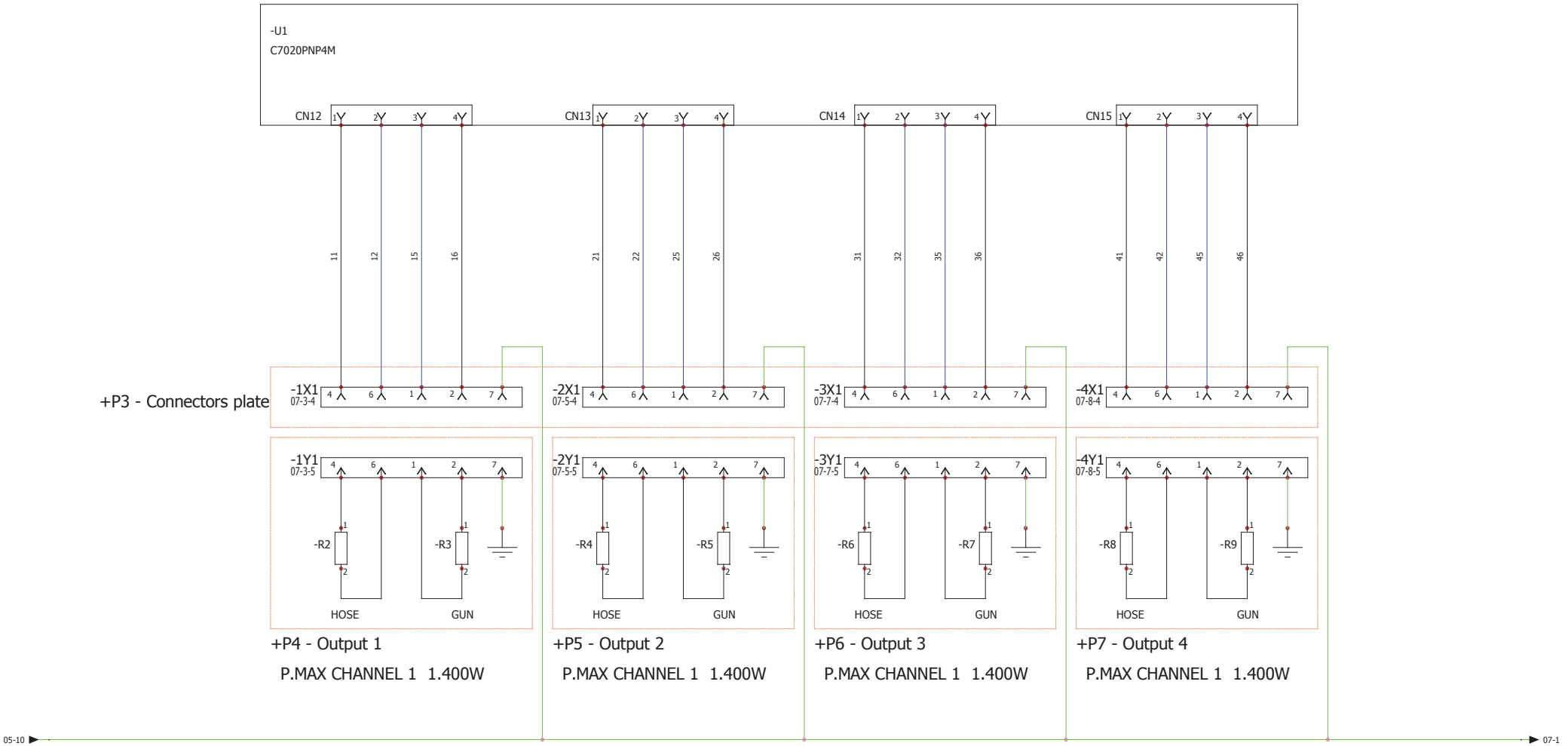
SWITCH, POWER SUPPLY, TANK AND PUMP VALVE

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

SCHEME 05



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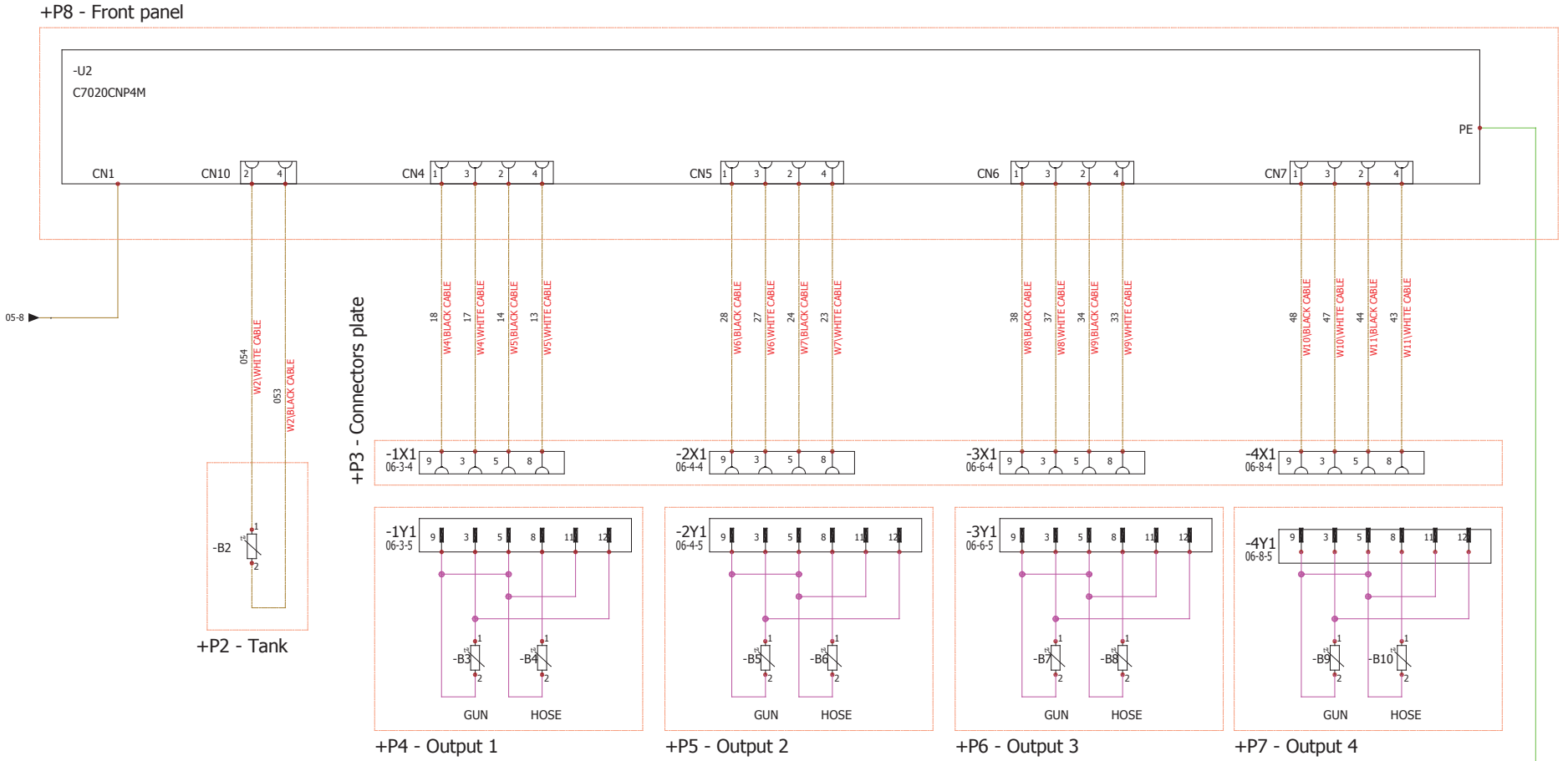
HOSE - GUN OUTPUTS
POWER CONNECTION

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	25/03/2015	mayestaran	

REVISION 1

SCHEME 06



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TANK AND OUTPUTS RTD
CONNECTION AND INTERCONNECTION CABLE

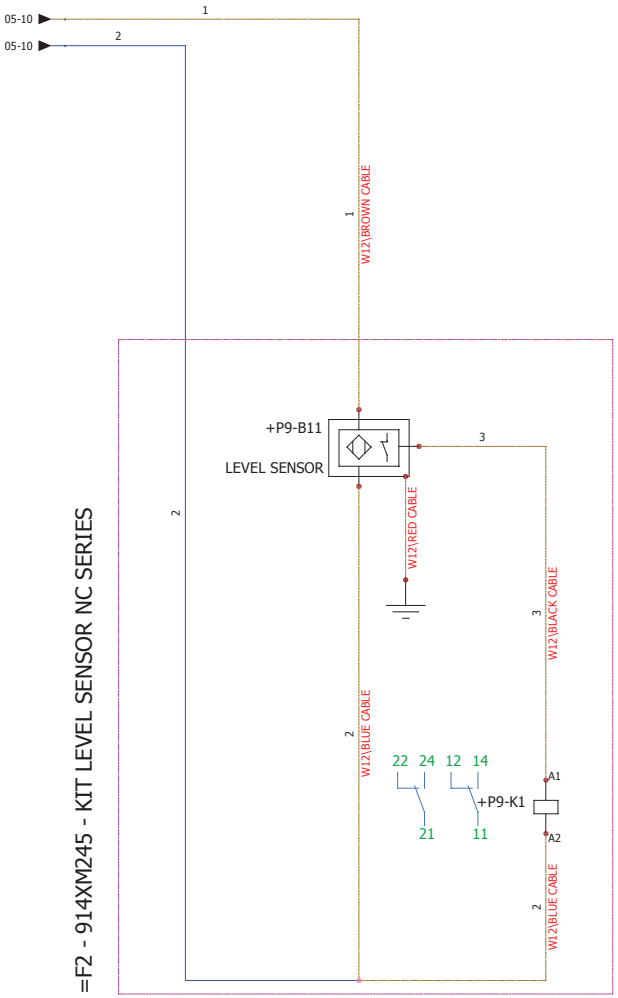
PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	26/03/2015	mayestaran	

REVISION 1

SCHEME 07

1	2	3	4	5	6	7	8	9	10



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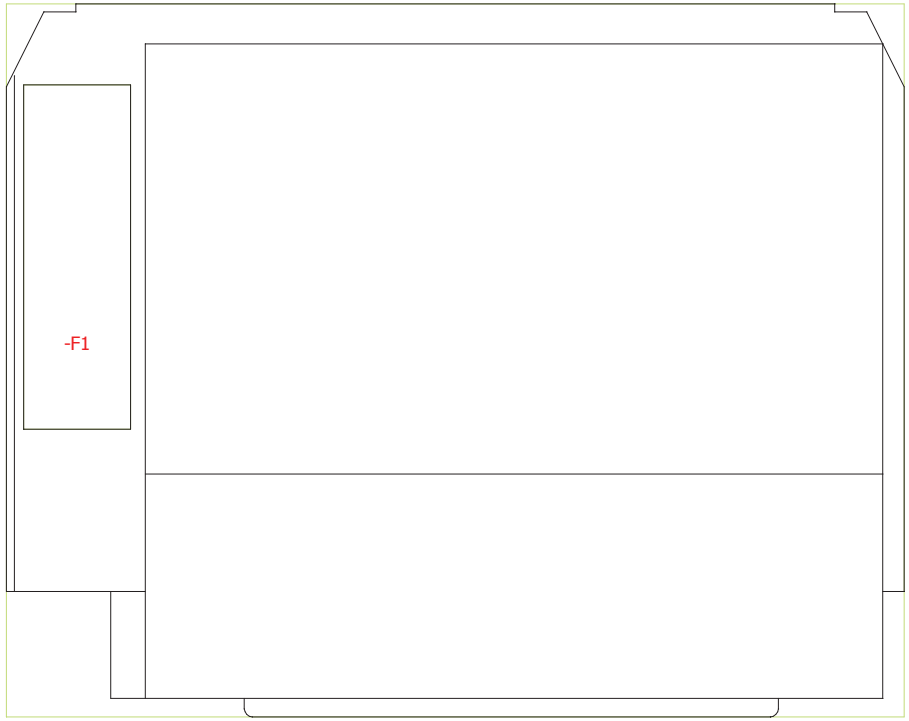
LEVEL SENSOR KIT CONNECTION

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	23/03/2016	mayestaran	

REVISION 1

SCHEME 08



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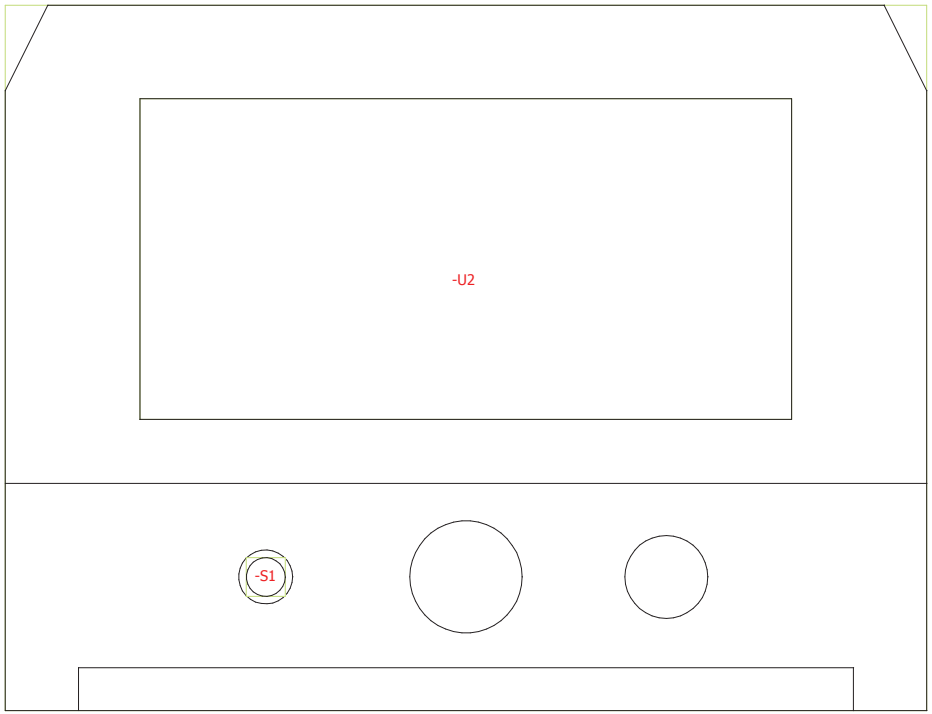
PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	27/03/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 09



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FRONT PANEL CONSTRUCTION

PROJECT: S035010201 NC04/NC08 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	27/03/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 10

S035020201
NC04/NC08 (1-6S) NI120

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COVER PAGE

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	31/03/2015	mayestaran	

REVISION 1

SCHEME 01

1-Document book

Drawing	Function	Location	Revision	Date	Created by	Description
01	F1	P1	0	31/03/2015	mayestaran	Cover page
02	F1	P1	0	31/03/2015	mayestaran	Drawing list
03	F1	P1	0	31/03/2015	mayestaran	Wiring line diagram
04	F1	P1	0	31/03/2015	mayestaran	SERVICE WIRE
05	F1	P1	0	31/03/2015	mayestaran	POWER SUPPLY
06	F1	P1	0	13/04/2015	mayestaran	POWER OUTPUTS
07	F1	P1	0	14/04/2015	mayestaran	RTD
08	F1	P1	0	14/04/2015	mayestaran	RTD
09	F1	P1	0	14/04/2015	mayestaran	ELECTRICAL CABINET
10	F1	P10	0	14/04/2015	mayestaran	FRONT PANEL
11	F1	P1	0	14/04/2015	mayestaran	Bill of materials
12	F1	P1	0	14/04/2015	mayestaran	Bill of materials
13	F1	P1	0	14/04/2015	mayestaran	List of wires
14	F1	P1	0	14/04/2015	mayestaran	List of wires
15	F1	P1	0	14/04/2015	mayestaran	List of the cables
16	F1	P1	0	14/04/2015	mayestaran	List of cable strands
17	F1	P1	0	14/04/2015	mayestaran	List of cable strands
18	F1	P1	0	14/04/2015	mayestaran	List of cable strands

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DRAWING LIST

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

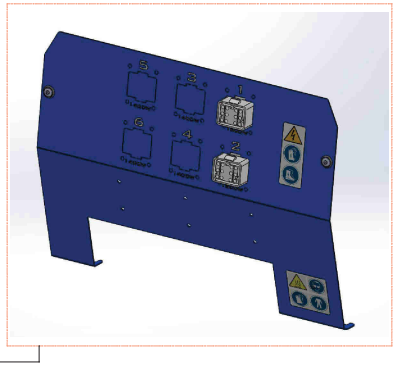
REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	31/03/2015	mayestaran	

REVISION 1

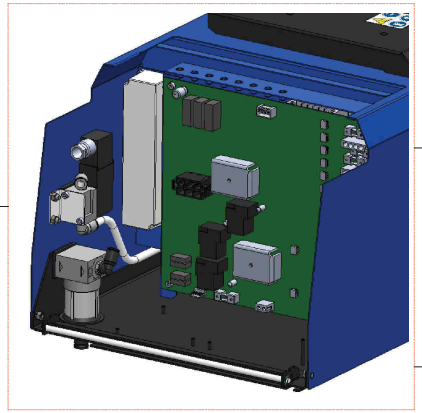
SCHEME 02

1	2	3	4	5	6	7	8	9	10

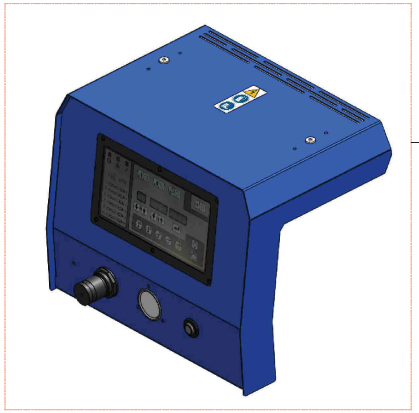
+P3 - Connectors plate



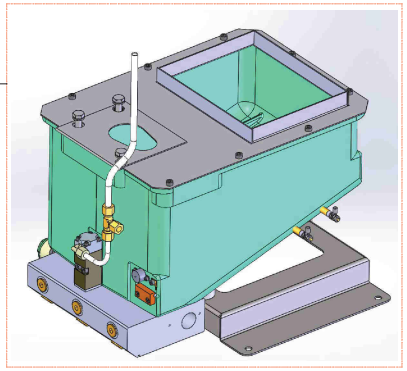
+P1 - Electrical cabinet



+P10 - Front panel



+P2 - Tank



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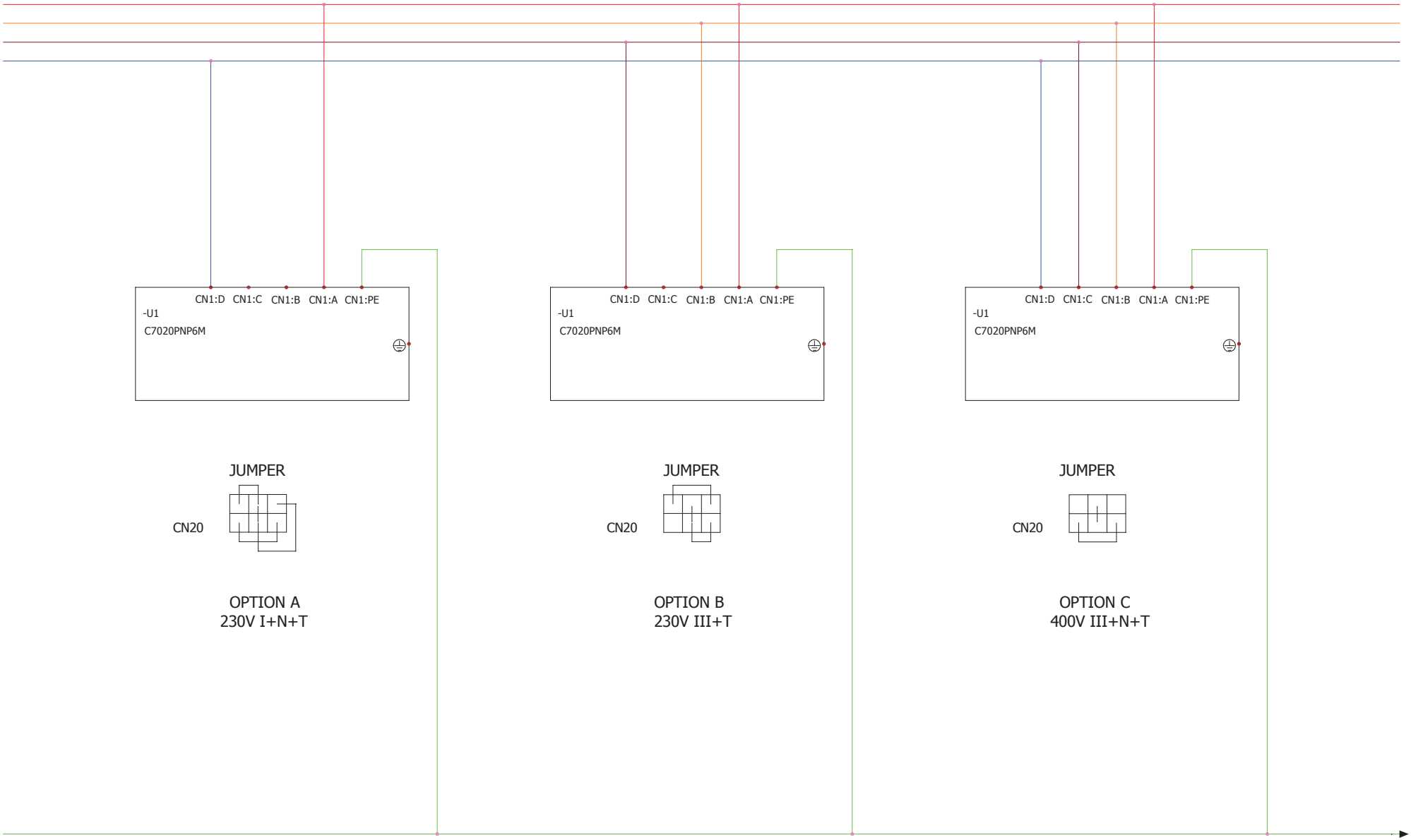
WIRING LINE DIAGRAM

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	31/03/2015	mayestaran	

REVISION 1

SCHEME 03



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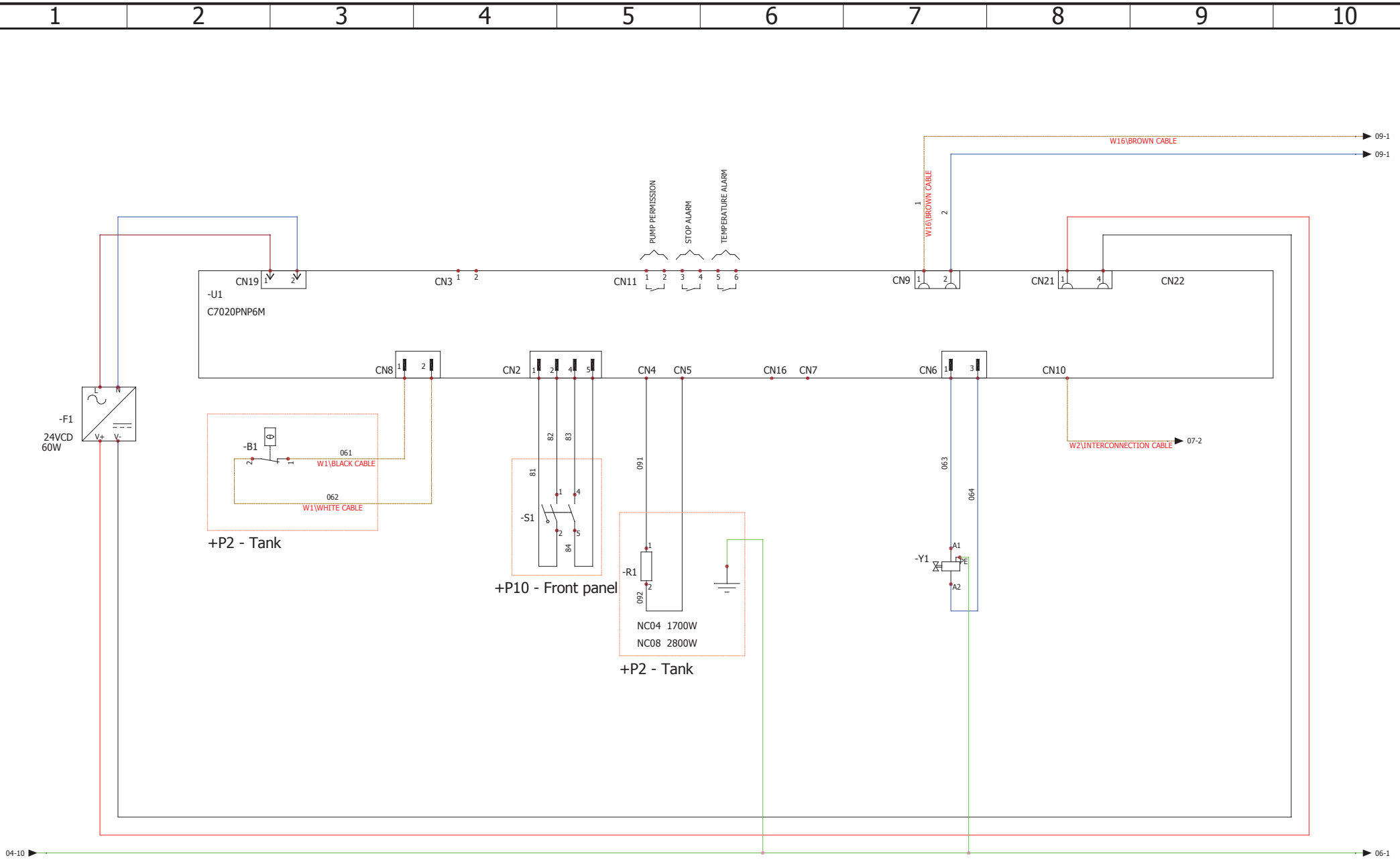
SERVICE WIRES CONNECTION

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	31/03/2015	mayestaran	

REVISION 1

SCHEME 04



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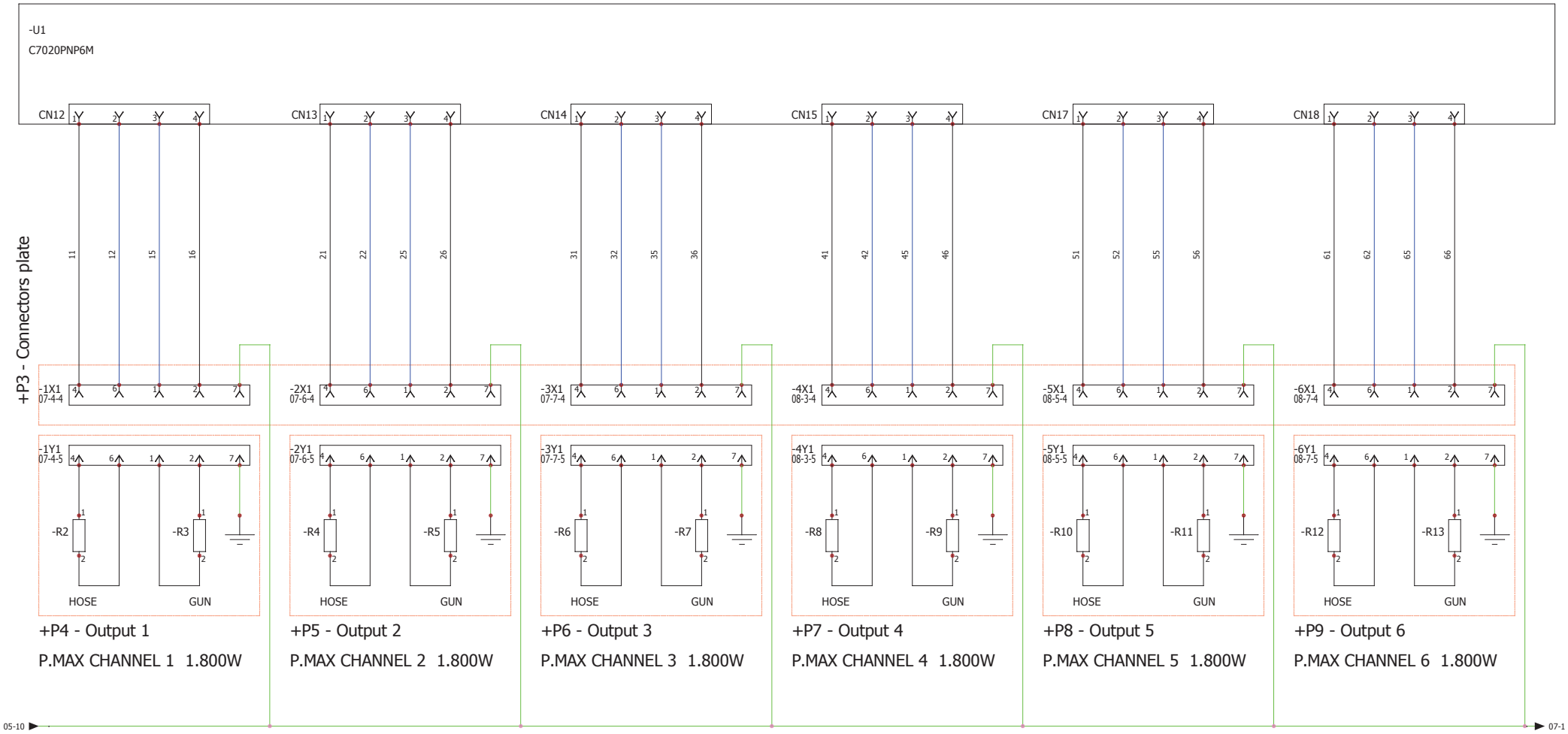
POWER SUPPLY, THERMOSTAT, TANK HEATERS AND PUMP VALVE

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	31/03/2015	mayestaran	

REVISION 1

SCHEME 05



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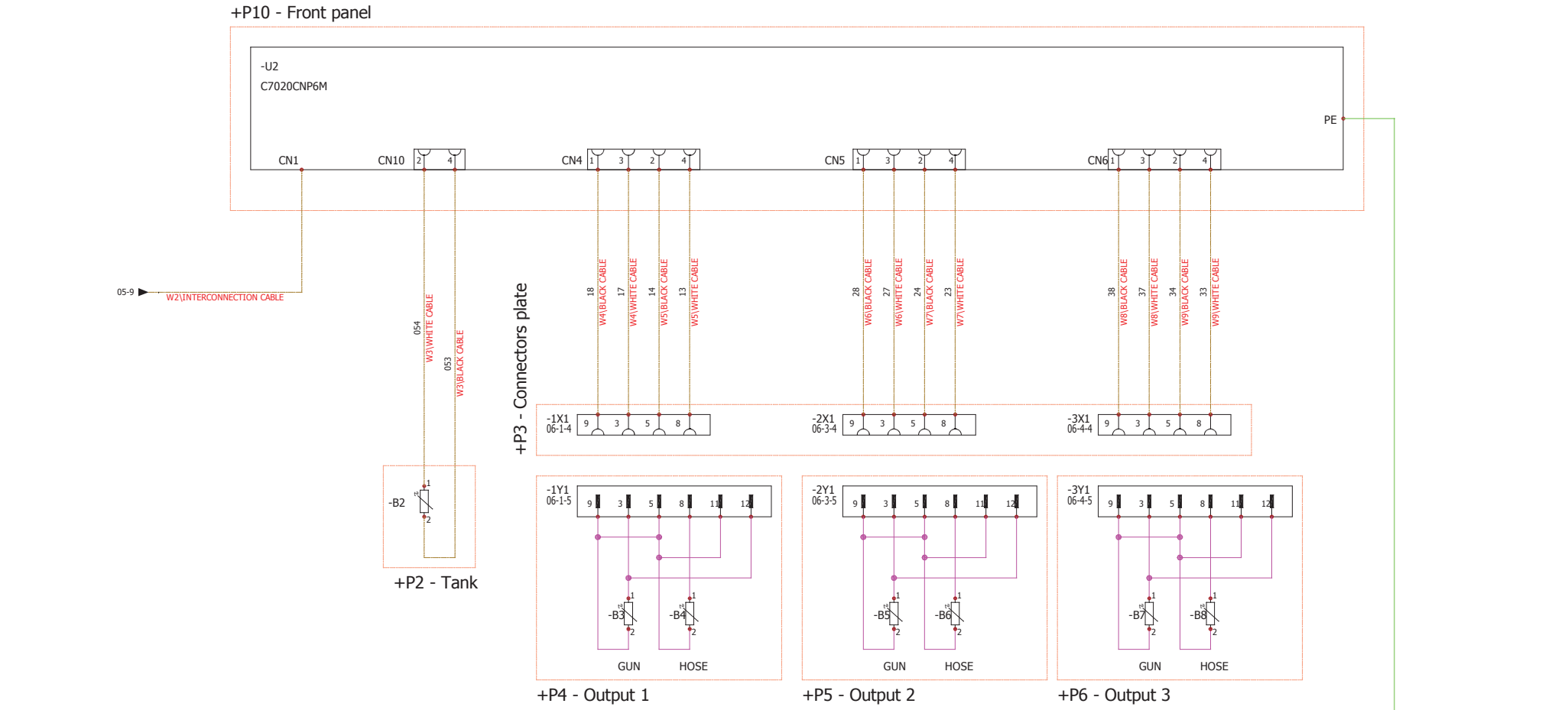
HOSE - GUN OUTPUTS POWER CONNECTION

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	13/04/2015	mayestaran	

REVISION 1

SCHEME 06



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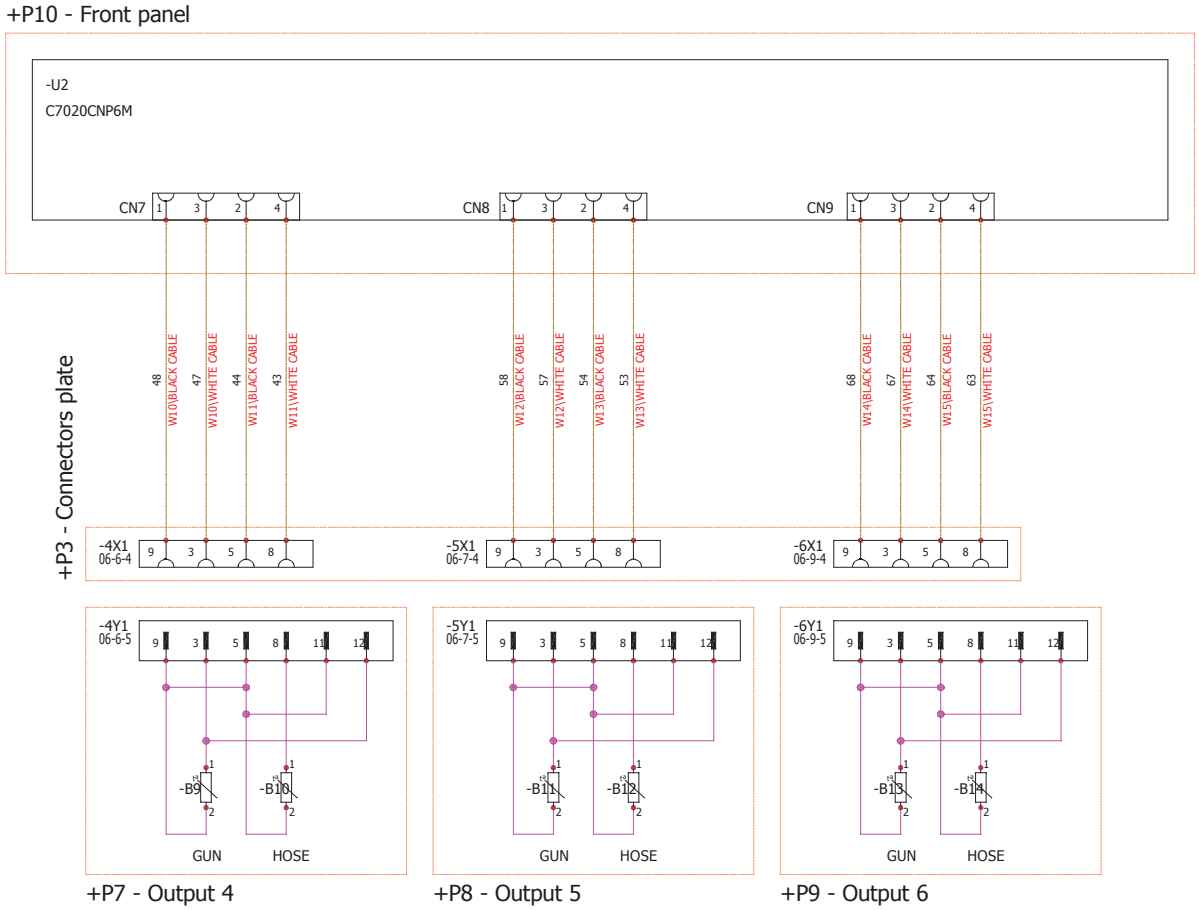
TANK AND OUTPUTS RTD CONNECTION AND INTERCONNECTION CABLE

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 07



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OUTPUTS RTD CONNECTION

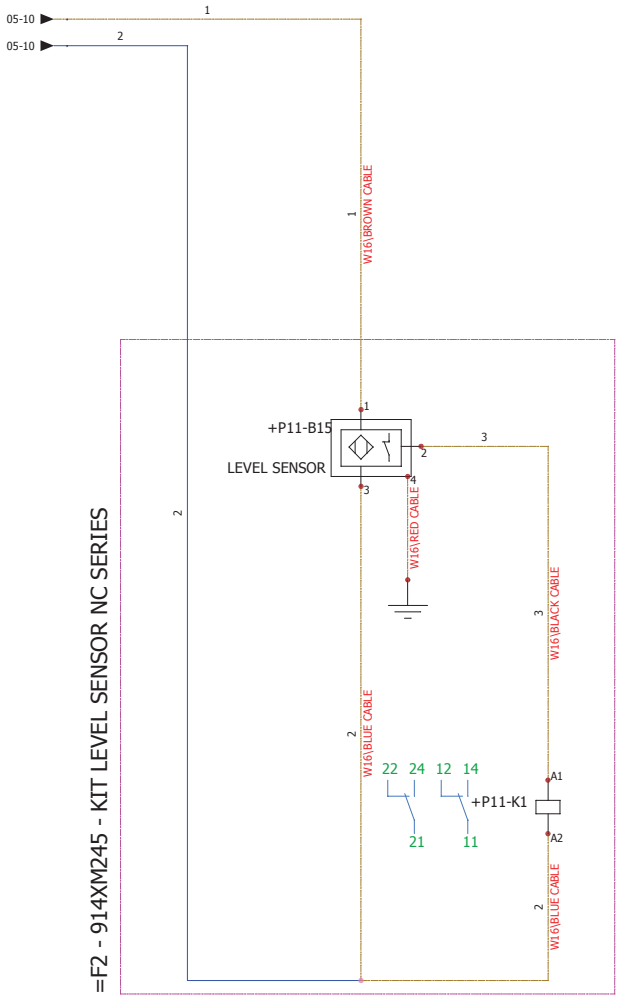
PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 08

1	2	3	4	5	6	7	8	9	10



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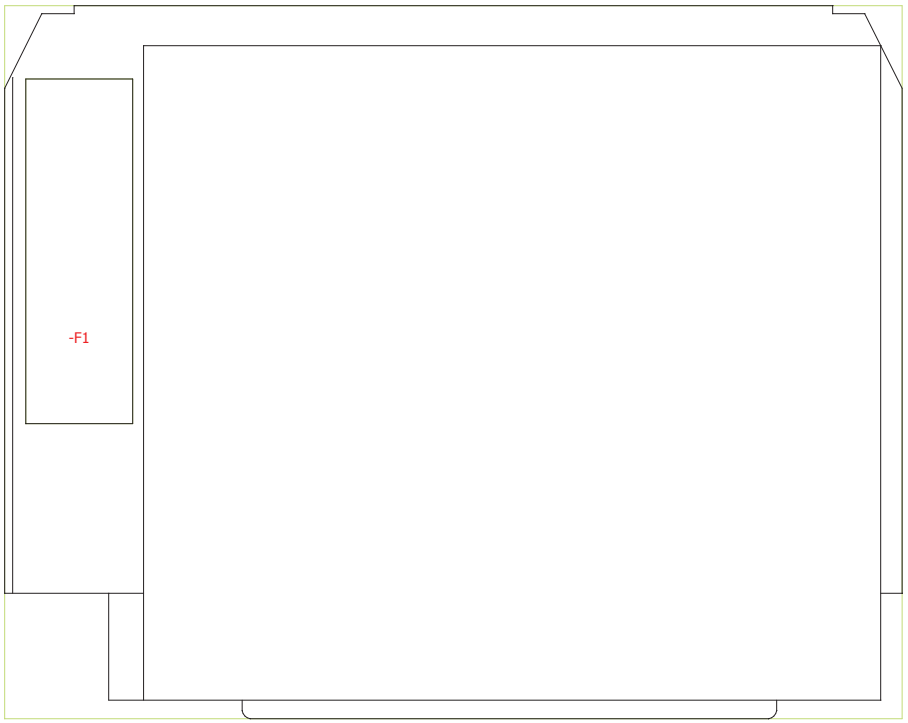
LEVEL SENSOR KIT CONNECTION

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	23/03/2016	mayestaran	

REVISION 1

SCHEME 09



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ELECTRICAL CABINET CONSTRUCTION

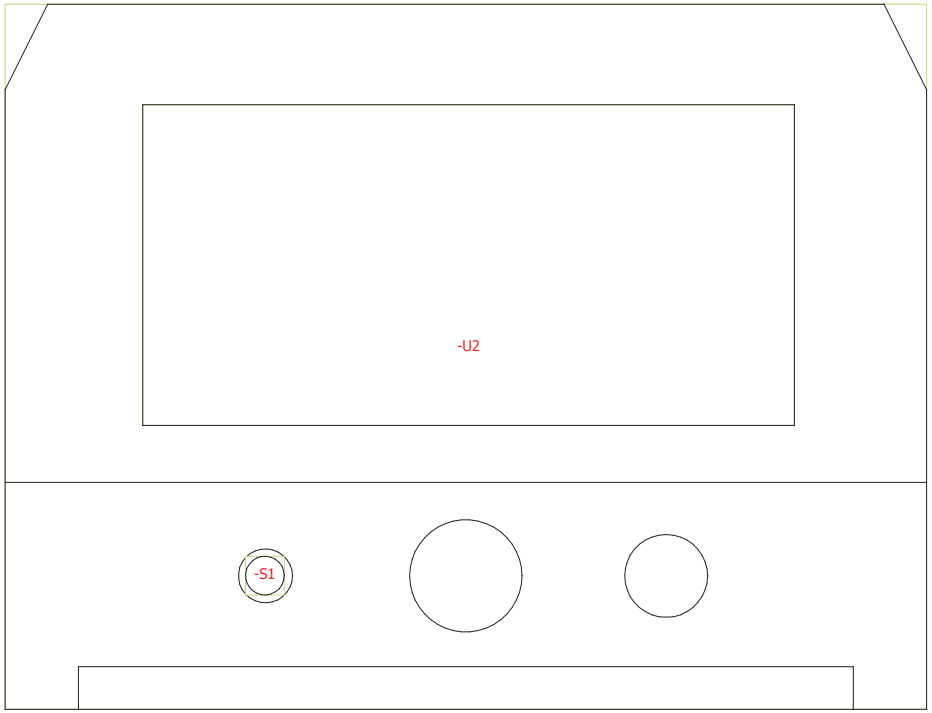
PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	14/04/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 10



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FRONT PANEL CONSTRUCTION

PROJECT: S035020201 NC04/NC08 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit
0	14/04/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 11

S035030201
NC16 (1-4S) NI120

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COVER PAGE

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 01

1-Document book

Drawing	Function	Location	Revision	Date	Created by	Description
01	F1	P1	0	30/03/2015	mayestaran	Cover page
02	F1	P1	0	30/03/2015	mayestaran	Drawing list
03	F1	P1	0	30/03/2015	mayestaran	Wiring line diagram
04	F1	P1	0	30/03/2015	mayestaran	SERVICE WIRES
05	F1	P1	0	30/03/2015	mayestaran	POWER SUPPLY
06	F1	P1	0	30/03/2015	mayestaran	POWER OUTPUTS
07	F1	P1	0	30/03/2015	mayestaran	RTD
08	F1	P1	0	30/03/2015	mayestaran	Electrical cabinet
09	F1	P8	0	30/03/2015	mayestaran	Front panel
10	F1	P1	0	30/03/2015	mayestaran	Bill of materials
11	F1	P1	0	30/03/2015	mayestaran	Bill of materials
12	F1	P1	0	30/03/2015	mayestaran	Bill of materials
13	F1	P1	0	30/03/2015	mayestaran	List of wires
14	F1	P1	0	30/03/2015	mayestaran	List of wires
15	F1	P1	0	30/03/2015	mayestaran	List of wires
16	F1	P1	0	30/03/2015	mayestaran	List of the cables
17	F1	P1	0	30/03/2015	mayestaran	List of cable strands
18	F1	P1	0	30/03/2015	mayestaran	List of cable strands
19	F1	P1	0	30/03/2015	mayestaran	List of cable strands

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DRAWING LIST

PROJECT: S035030201 NC16 (1-4S) NI120

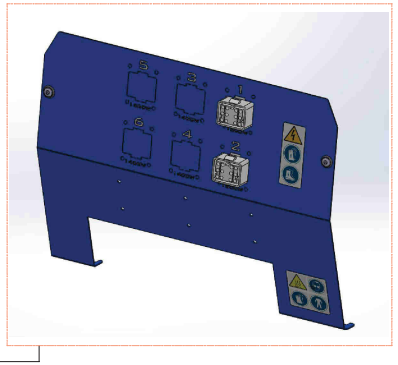
REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

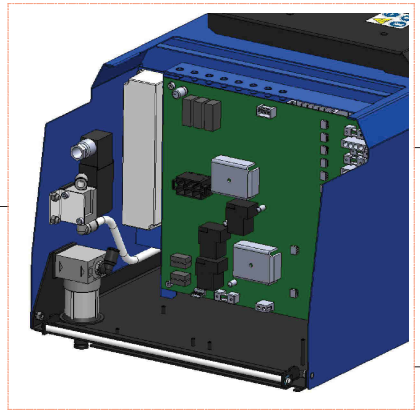
SCHEME 02

1	2	3	4	5	6	7	8	9	10

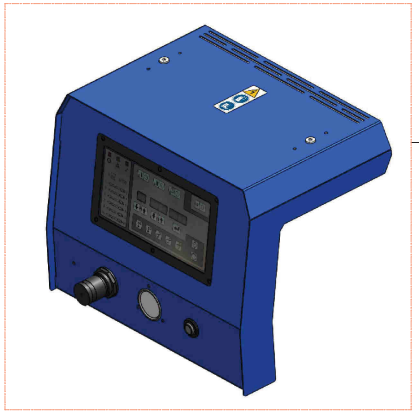
+P3 - Connectors plate



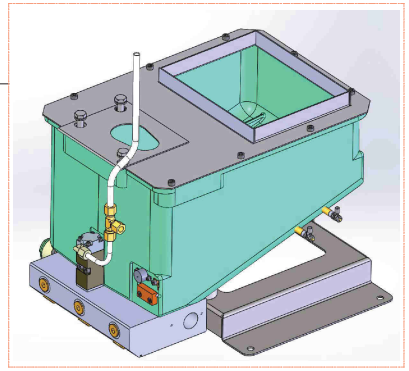
+P1 - Electrical cabinet



+P8 - Front panel



+P2 - Tank



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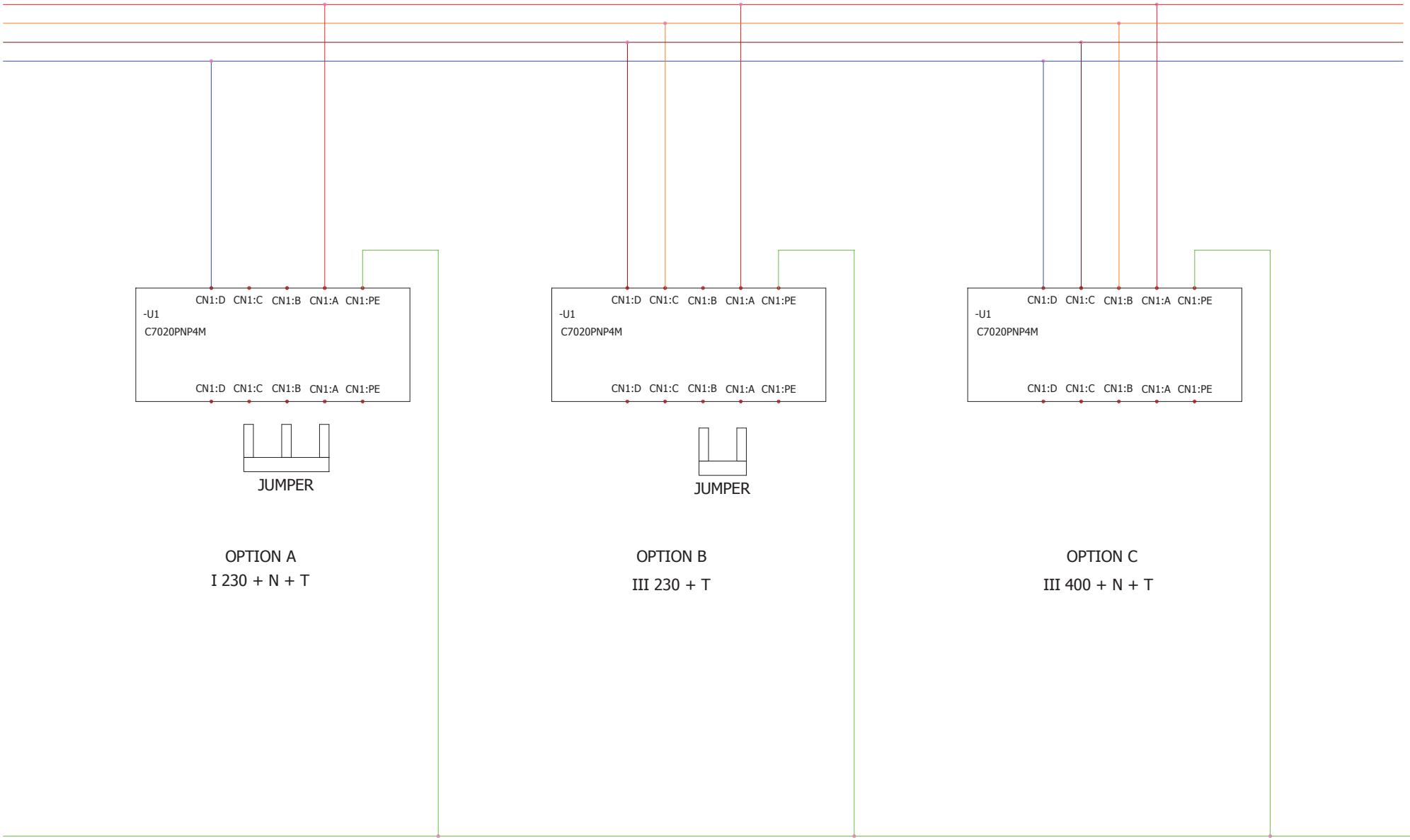
WIRING LINE DIAGRAM

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 03



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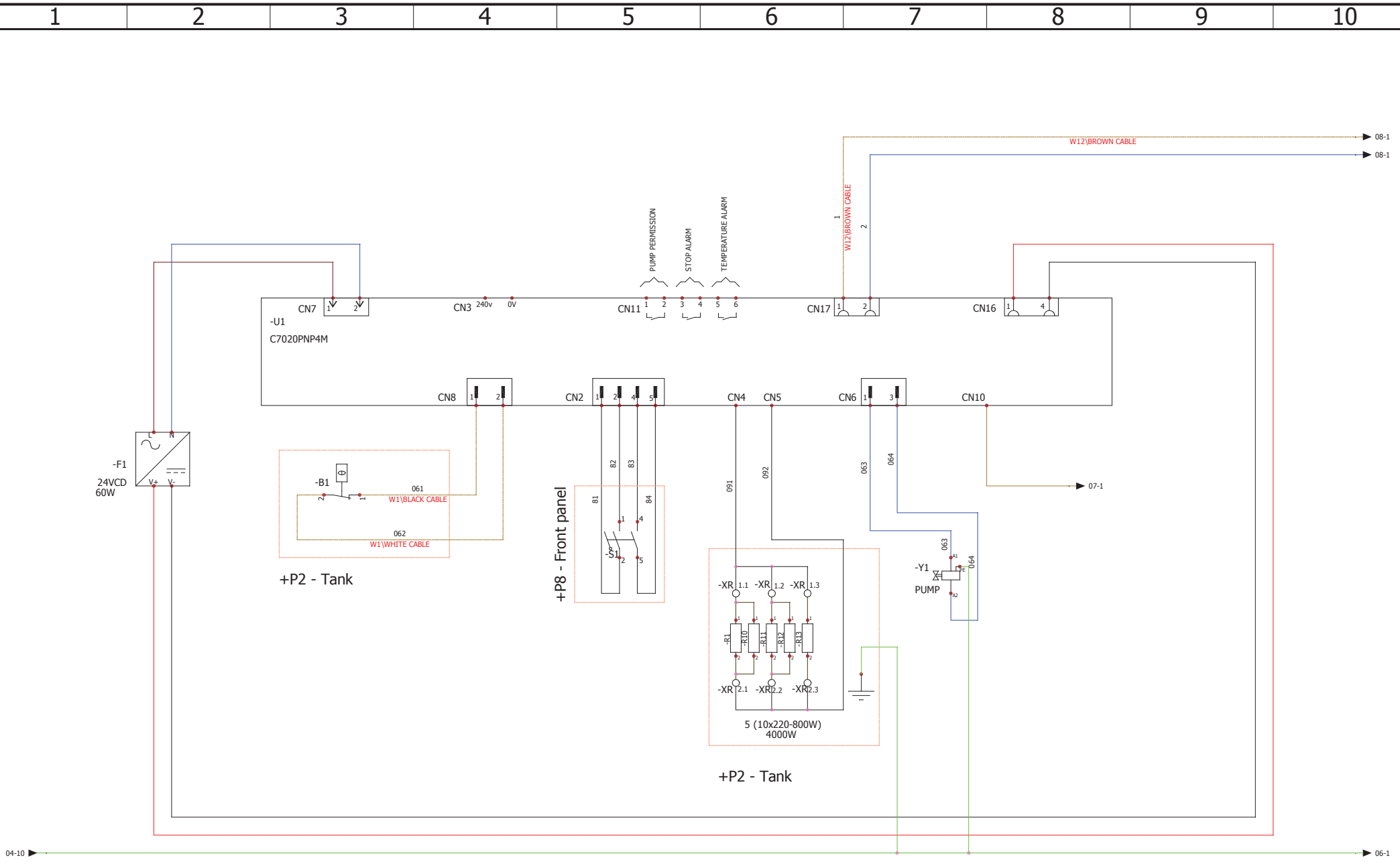
SERVICE WIRES CONNECTION

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 04



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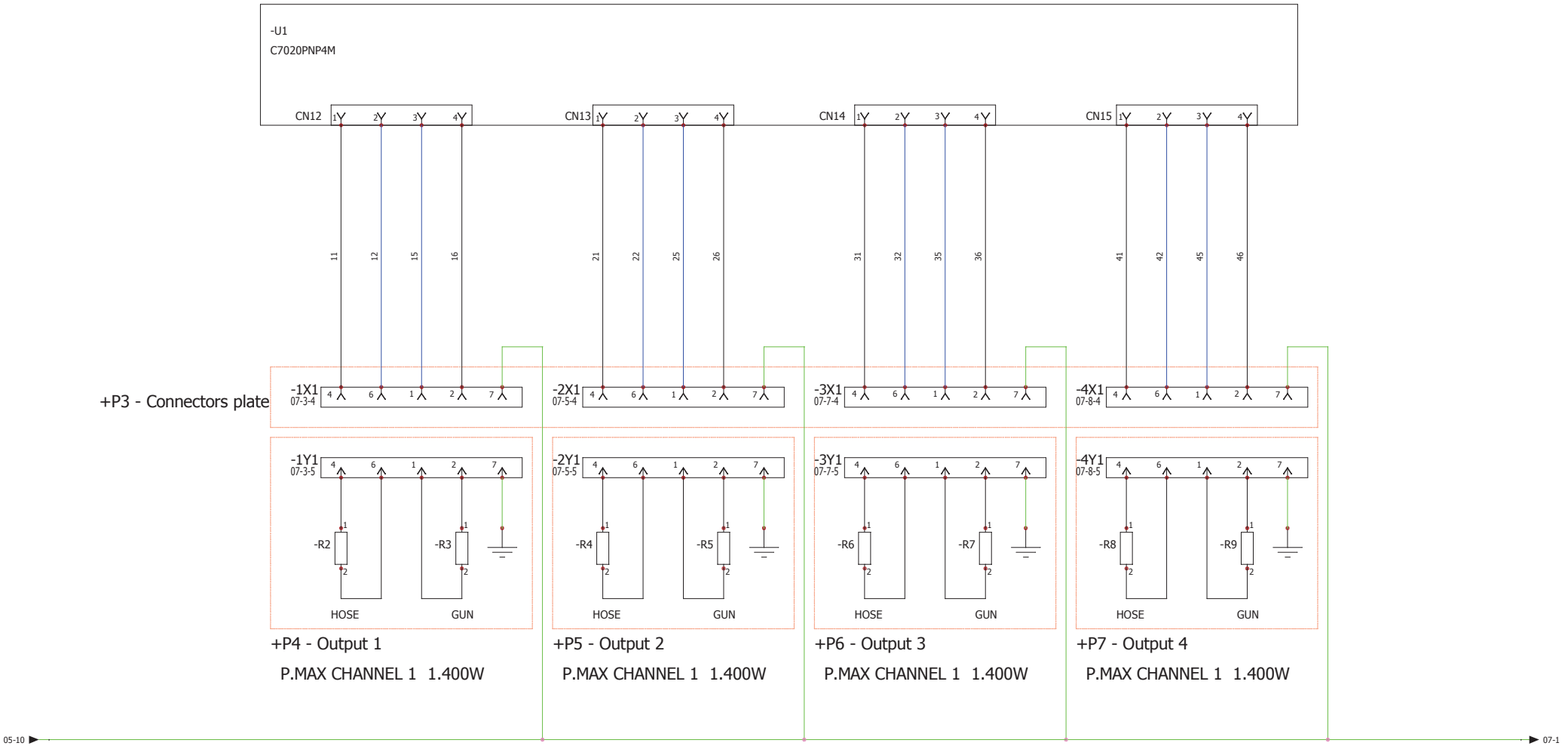
SWITCH, POWER SUPPLY, TANK AND PUMP VALVE

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 05



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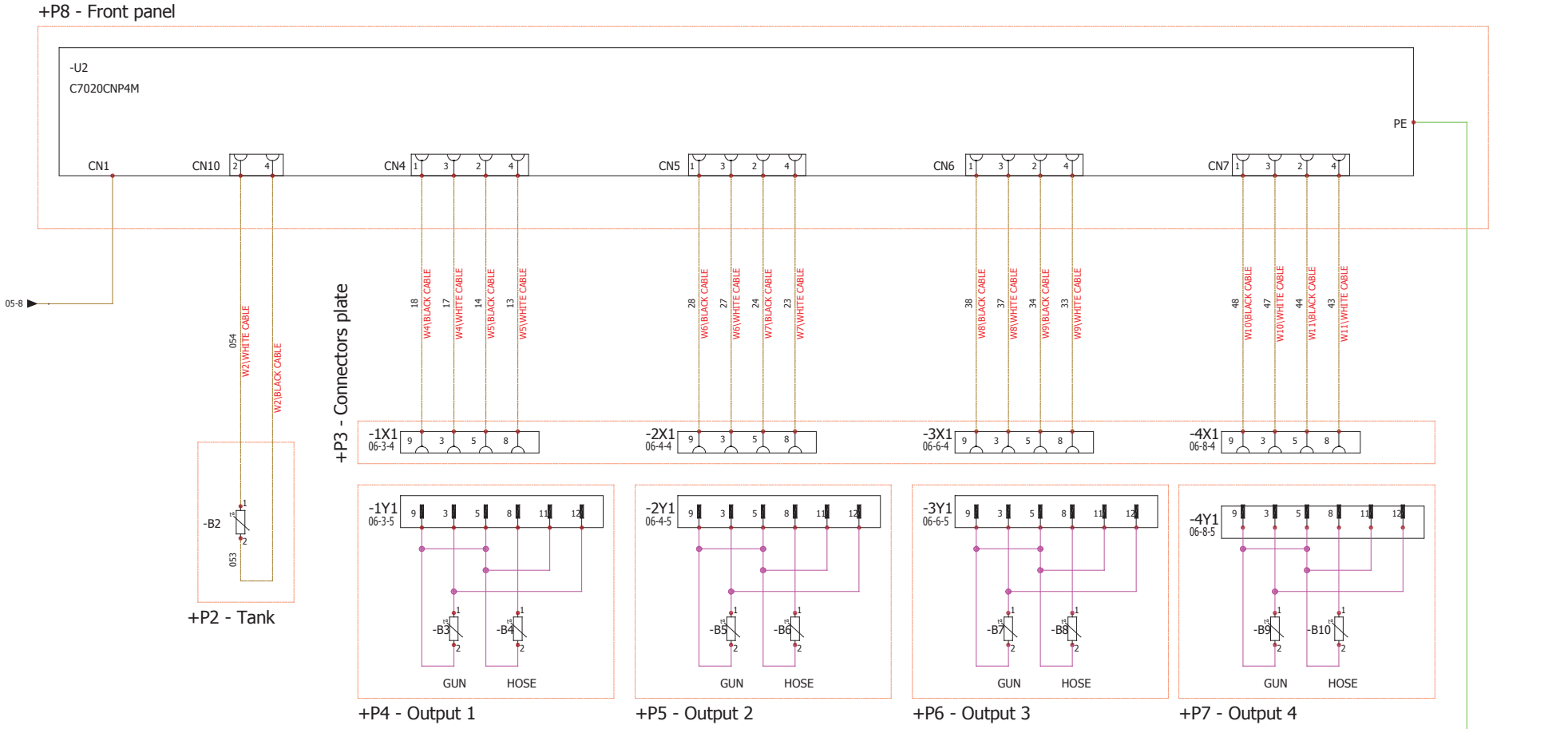
HOSE - GUN OUTPUTS
POWER CONNECTION

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 06



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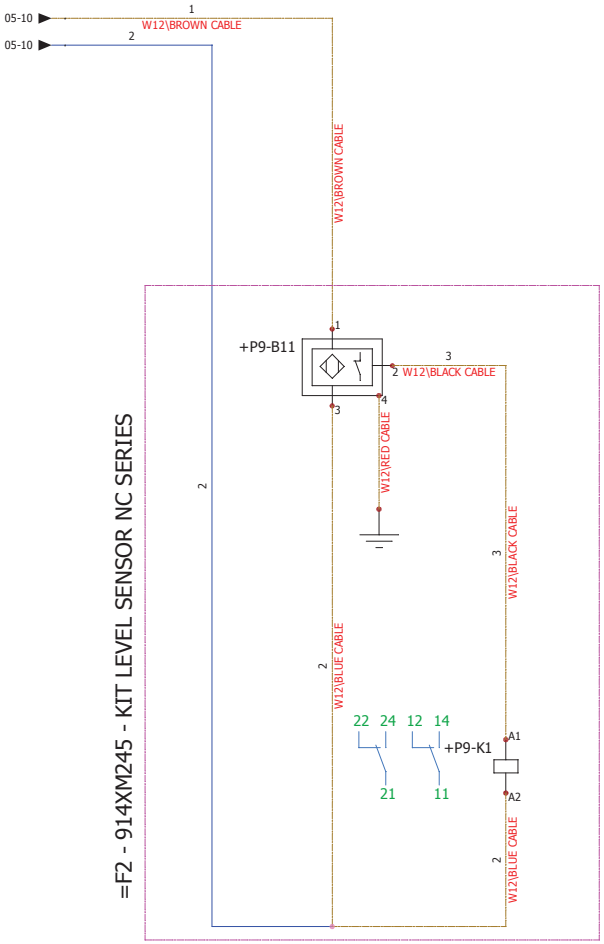
TANK AND OUTPUTS RTD CONNECTION AND INTERCONNECTION CABLE

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

REVISION 1

SCHEME 07



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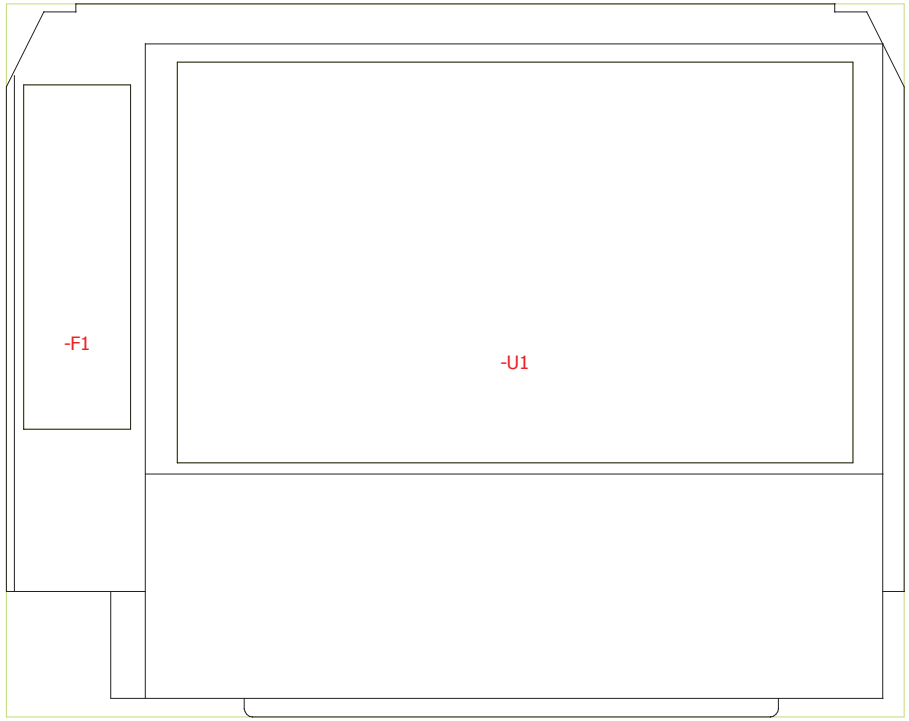
KIT LEVEL SENSOR
NC SERIES

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	23/03/2016	mayestaran	

REVISION 1

SCHEME 08



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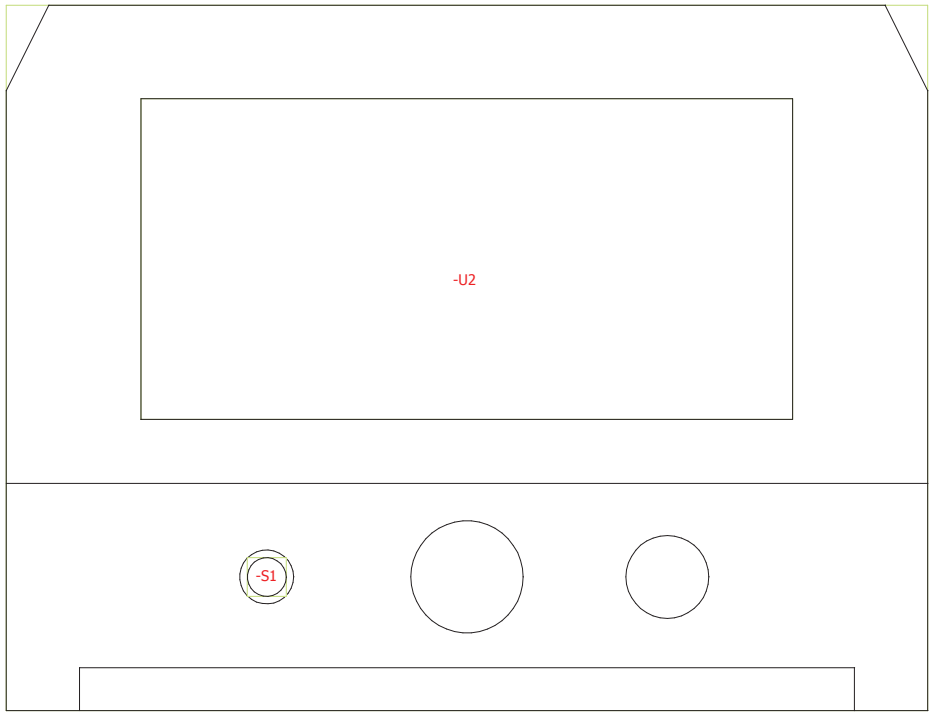
PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 09



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FRONT PANEL CONSTRUCTION

PROJECT: S035030201 NC16 (1-4S) NI120

REV.	DATE	NAME	CHANGES
1	23/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	30/03/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 10

S035040201
NC16 (1-6S) NI120

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COVER PAGE

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 01

1-Document book

Drawing	Function	Location	Revision	Date	Created by	Description
01	F1	P1	0	31/03/2015	mayestaran	Cover page
02	F1	P1	0	31/03/2015	mayestaran	Drawing list
03	F1	P1	0	31/03/2015	mayestaran	Wiring line diagram
04	F1	P1	0	31/03/2015	mayestaran	SERVICE WIRE
05	F1	P1	0	31/03/2015	mayestaran	POWER SUPPLY
06	F1	P1	0	13/04/2015	mayestaran	POWER OUTPUTS
07	F1	P1	0	14/04/2015	mayestaran	RTD
08	F1	P1	0	14/04/2015	mayestaran	RTD
09	F1	P1	0	14/04/2015	mayestaran	ELECTRICAL CABINET
10	F1	P10	0	14/04/2015	mayestaran	FRONT PANEL
11	F1	P1	0	14/04/2015	mayestaran	Bill of materials
12	F1	P1	0	14/04/2015	mayestaran	Bill of materials
13	F1	P1	0	14/04/2015	mayestaran	List of wires
14	F1	P1	0	14/04/2015	mayestaran	List of wires
15	F1	P1	0	14/04/2015	mayestaran	List of the cables
16	F1	P1	0	14/04/2015	mayestaran	List of cable strands
17	F1	P1	0	14/04/2015	mayestaran	List of cable strands
18	F1	P1	0	14/04/2015	mayestaran	List of cable strands

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DRAWING LIST

PROJECT: S035040201 NC16 (1-6S) NI120

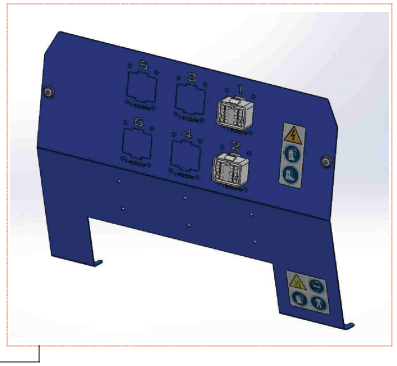
REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

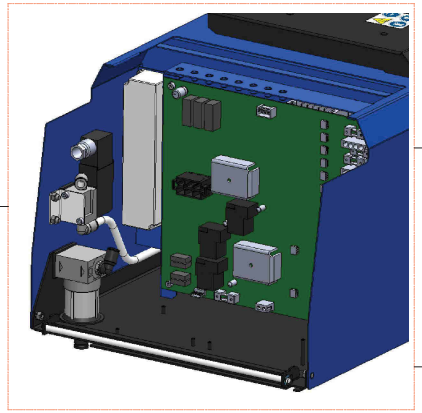
SCHEME 02

1	2	3	4	5	6	7	8	9	10

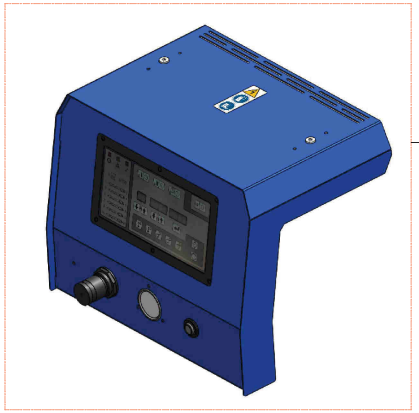
+P3 - Connectors plate



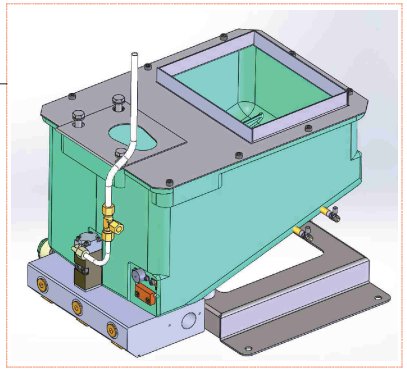
+P1 - Electrical cabinet



+P10 - Front panel



+P2 - Tank



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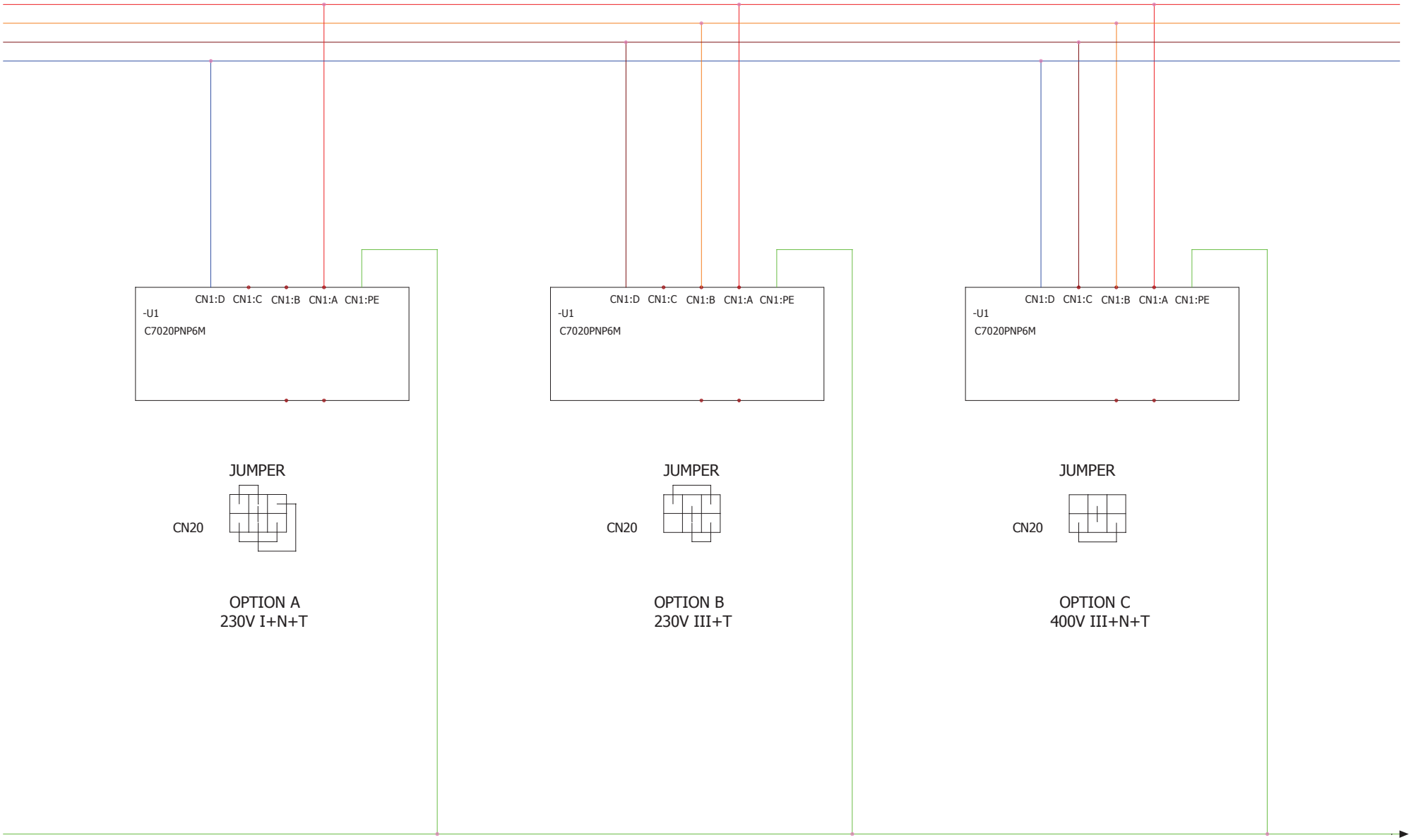
WIRING LINE DIAGRAM

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 03



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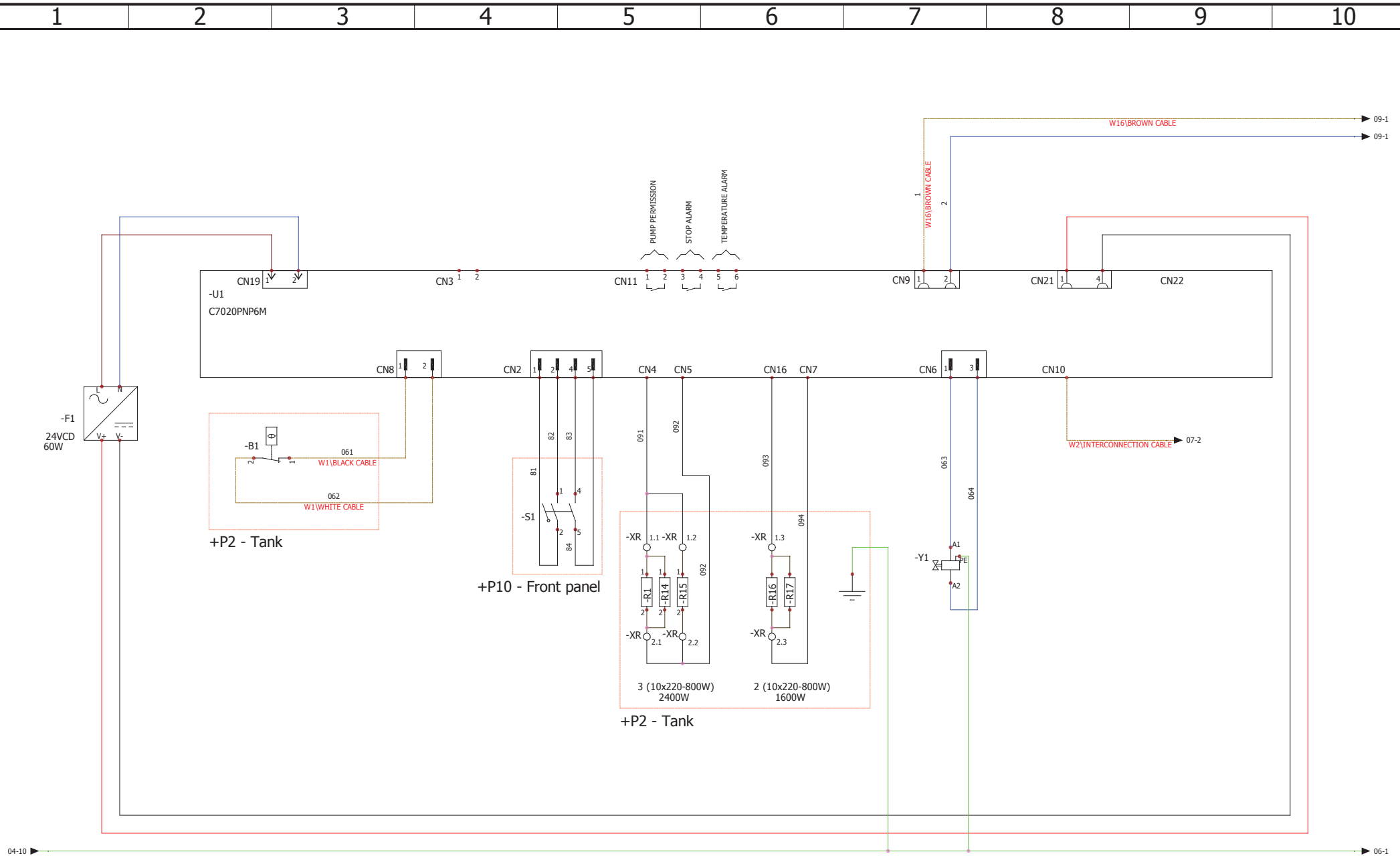
SERVICE WIRES CONNECTION

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 04



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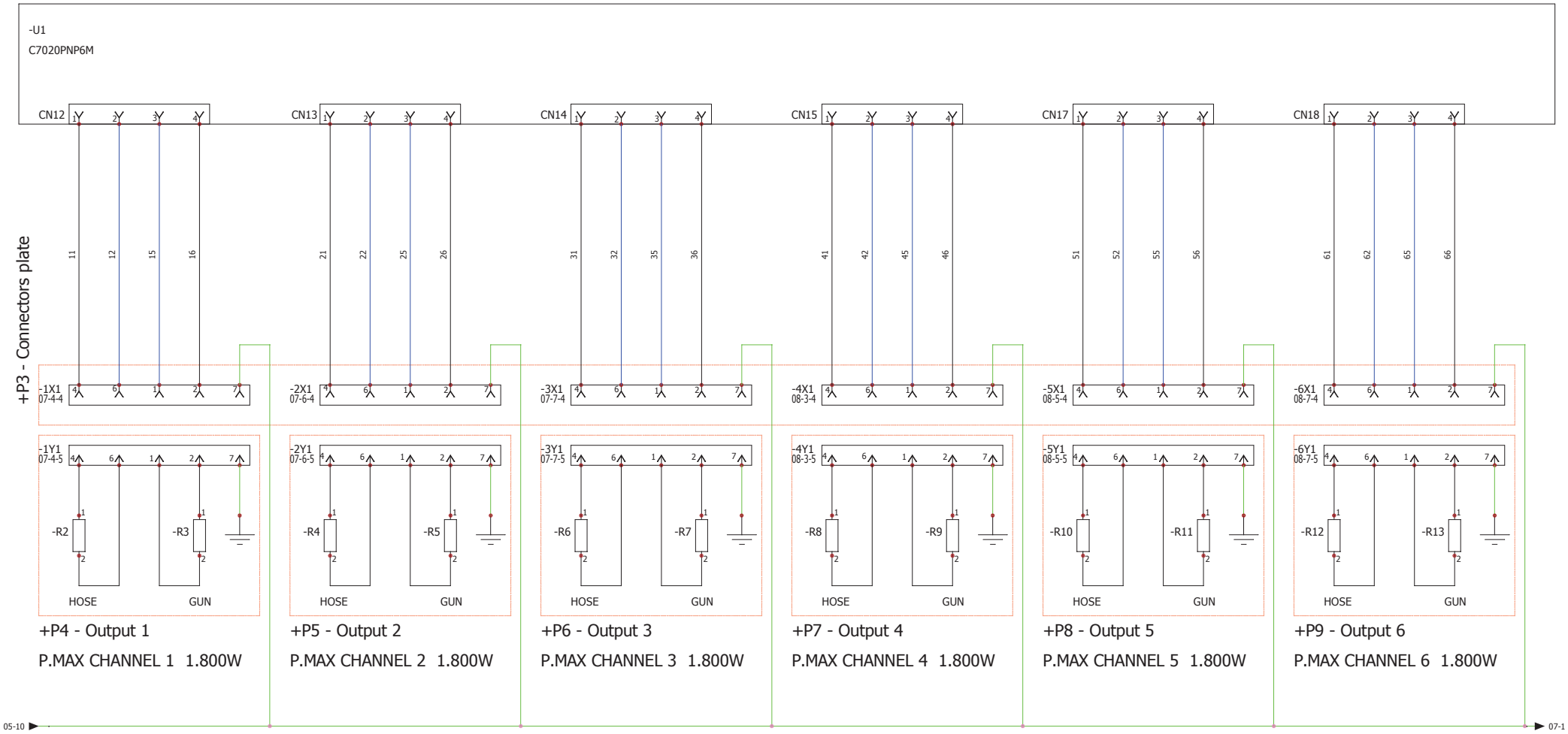
POWER SUPPLY, THERMOSTAT, TANK HEATERS AND PUMP VALVE

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 05



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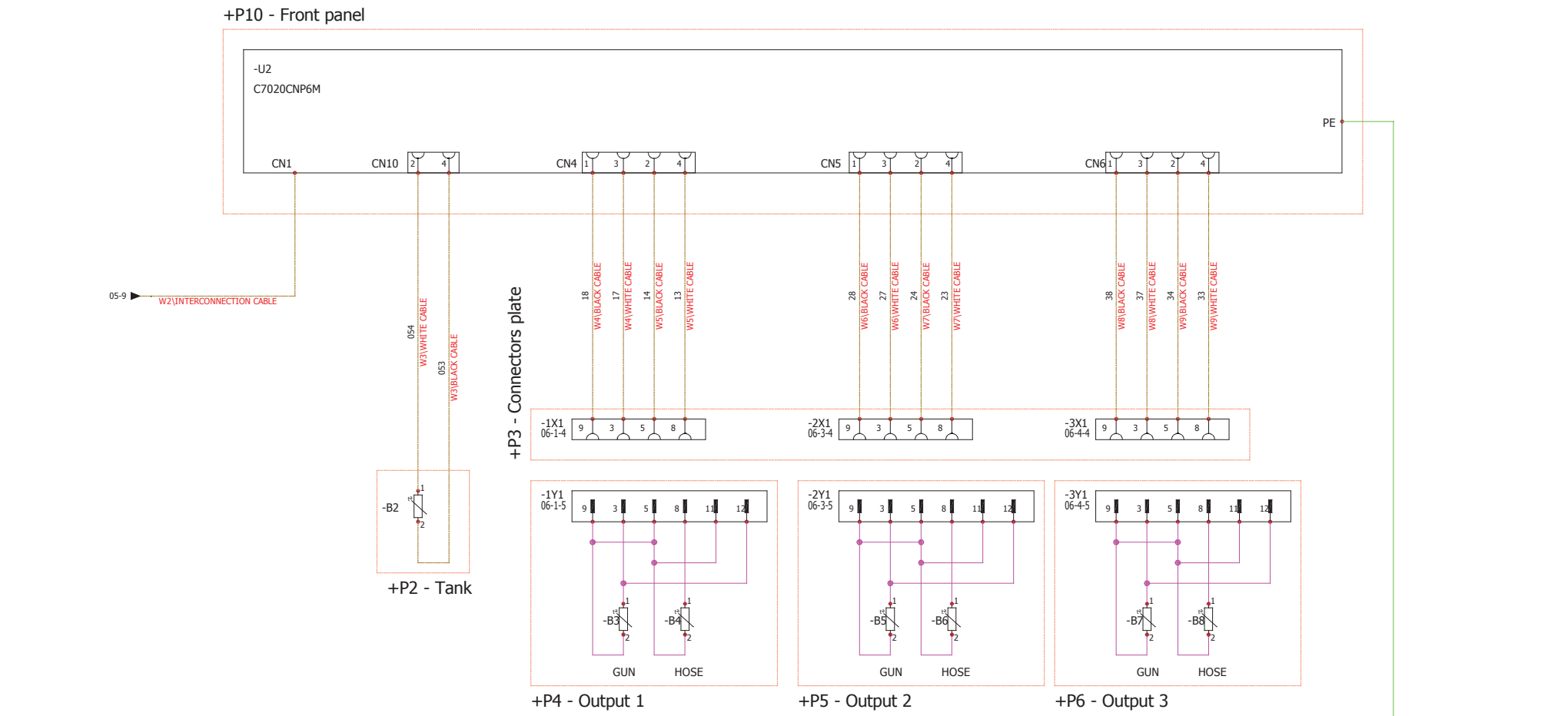
HOSE - GUN OUTPUTS POWER CONNECTION

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 06



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TANK AND OUTPUTS RTD CONNECTION AND INTERCONNECTION CABLE

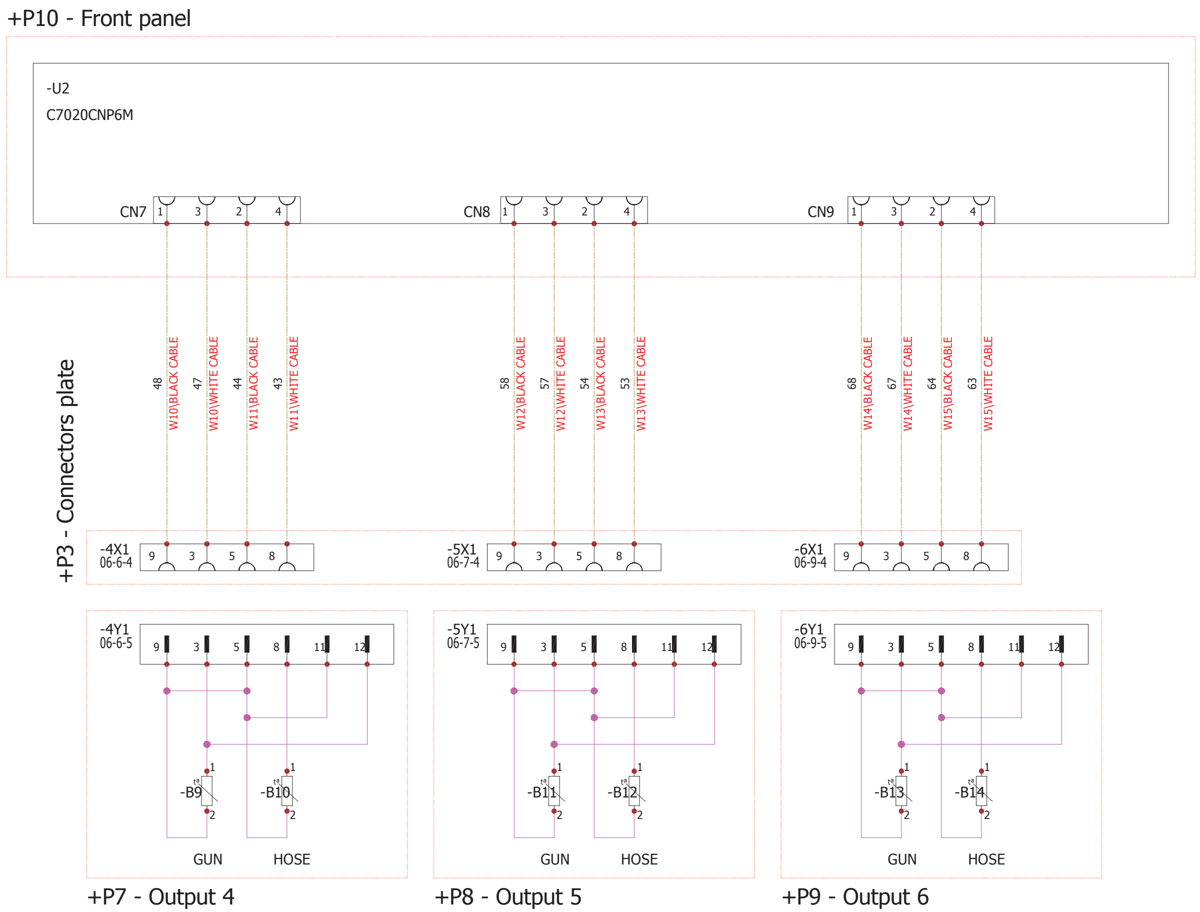
PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 07

1	2	3	4	5	6	7	8	9	10



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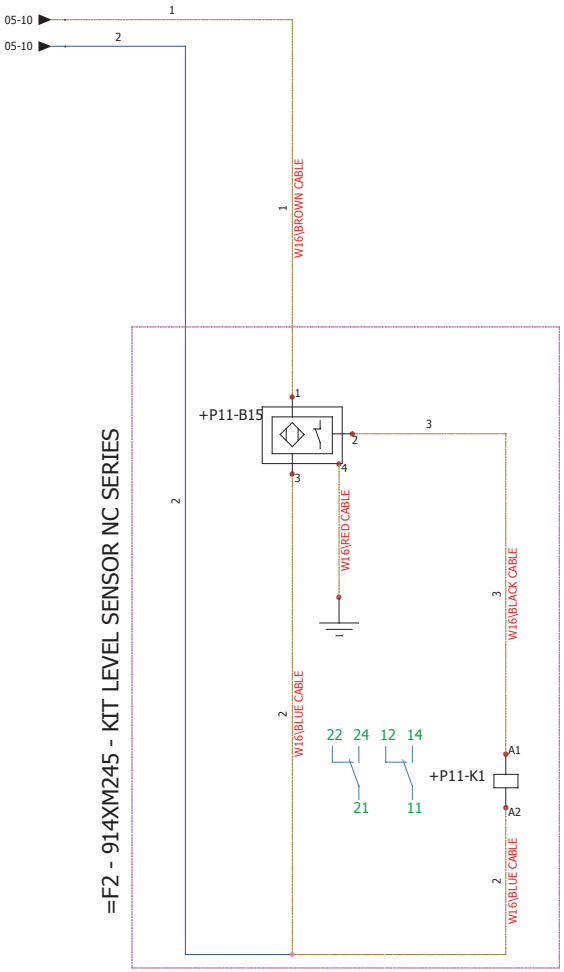
OUTPUTS RTD CONNECTION

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

REVISION 1

SCHEME 08



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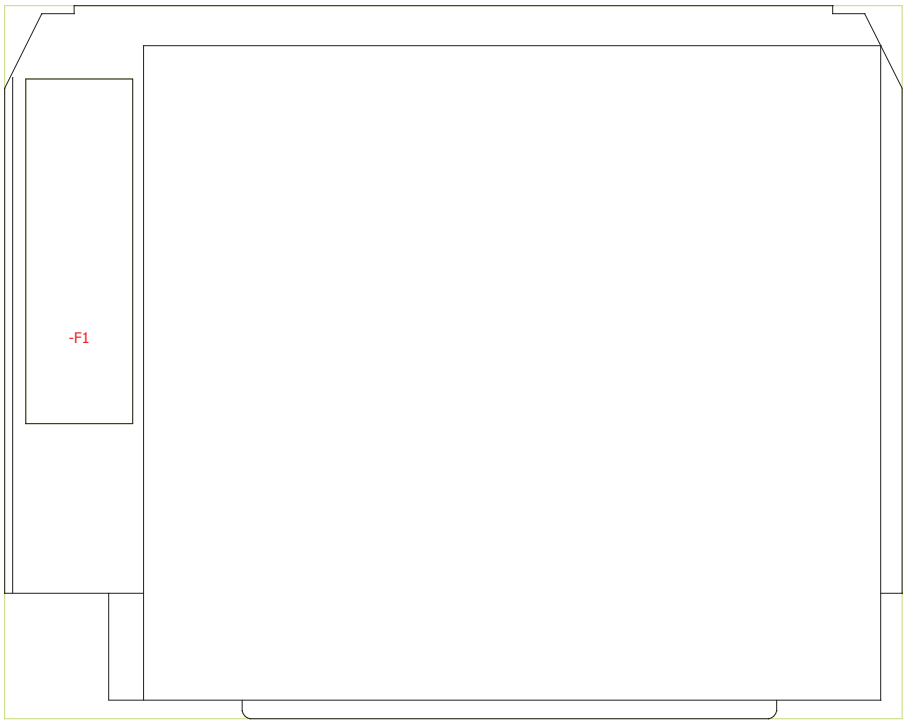
LEVEL SENSOR KIT CONNECTION

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	23/03/2016	mayestaran	

REVISION 1

SCHEME 09



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ELECTRICAL CABINET CONSTRUCTION

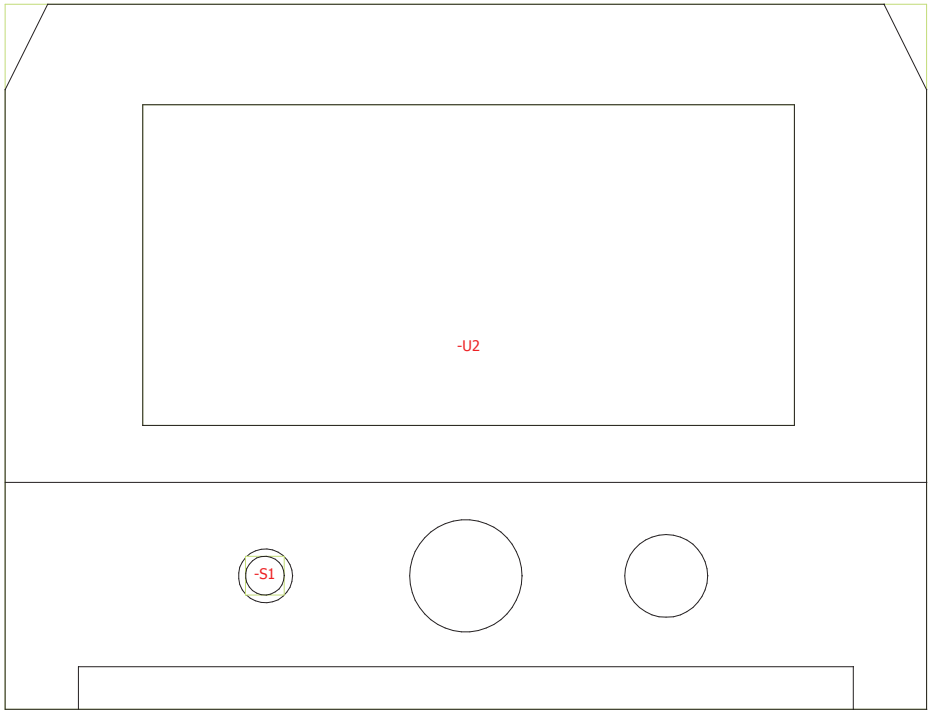
PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 10



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FRONT PANEL CONSTRUCTION

PROJECT: S035040201 NC16 (1-6S) NI120

REV.	DATE	NAME	CHANGES
1	29/03/2016	mayestaran	PM18844 Add level sensor kit connection
0	14/04/2015	mayestaran	

SCALE 1 / 2

REVISION 1

DRAWING 11