

TECHNICAL MANUAL 2023



CN-140

PNEUMATIC EQUIPMENT FOR POLYURETHANE PROJECTION

CELTIPOL



CN-140 TECHNICAL MANUAL

Translation of the original manual

03-2023

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1. GENERAL CONDITIONS.



Before installing and starting up the Machine, read all the technical and safety documentation included in this manual carefully. It is important to pay particular attention to the information included here in order to become acquainted with handling and operating conditions of the Unit. All information is focused on bolstering User Safety and avoiding any possible breakdown arising from the incorrect use of the Unit.

Careful reading of this Technical Manual will give you a better knowledge of the system and procedures. Following the instructions and recommendations included here will reduce the potential risk of accident during installation, use or maintenance of the Machine, and will make it possible to have an incident-free operation for a longer period of time, better performance and the possibility to detect and solve problems in a swift and simple manner.

Keep this Technical Manual. You will be able to make consultations in the future, with access to useful information at all times. In the event of misplacing the manual, please request a copy from Celtipol.



The design of the Machine does not allow for it to be used in potentially explosive environments. Nor should the pressure and temperature limits stipulated in the technical specifications in this manual be surpassed.



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2. SAFETY CONDITIONS

The first consideration to take into account is that during the design and project stage of the CN-140 machine, the regulations in force regarding machine Safety and Prevention of Risk in the Work Place have been scrupulously respected. Therefore, we can firmly state that the machine is intrinsically safe.

Nevertheless, in common with any machine or tool, incorrect use of the same may cause more or less hazardous situations. These recommendations have been drafted to avoid such situations to ensure safe use and handling of the system.

Leading on from the above, clearly, all personnel that have anything to do with the spraying and handling operations of the machine must have an in-depth knowledge of these recommendations as well as all other recommendations that may be provided by the manufacturers of chemical products.

Throughout these operations, the intention is to provide a non-exhaustive list of the possible risks that may arise from spraying operations. For this reason, and depending on each particular application, it must be the user of the system who should carefully study the risks arising from the same, in line with the Regulation in force on the Prevention of Risks in the Work Place.

Another aspect for consideration is the prevention of possible risks arising from the use of different chemical products, some of which may be hazardous if used incorrectly. Special attention should be paid to any fumes issued during use of polyurethane foam and polyurea systems since isocyanate compounds are used in spraying operations.

In short, to ensure that the handling and use of the spraying equipment is as safe as possible, the user must strictly follow the following aspects indicated in this manual.

3. APPLICATION SAFETY.

- It is advisable for personnel with a history of respiratory complaints to avoid exposure to all isocyanates.
- Chemical products must be handled safely in accordance with manufacturer's recommendations. The manufacturer should provide information on the toxicity of the products used as well as actions to take in the event of accident (wounds, irritation, etc.).
- It should be taken into account that solvents that may be used in cleaning operations may also entail additional risk during handling.
- Do not apply until adequate ventilation is ensured, either naturally or forced, if required. Suppliers of chemical products must be applied to in order to determine the values at which the concentrations of fumes may be hazardous.
- The appropriate procedures and systems must be applied to detect hazardous concentrations of fumes.
- In the event of not being able to ensure appropriate ventilation, both the personnel applying substances and those working in the area influenced by fumes must, without fail, use certified breathing apparatus.

At all times, users must use the appropriate personal protection equipment (gloves, breathing masks, goggles, protective clothing, etc.).

- Users must be completely familiar with the chemical products and with the use of the equipment.



- In order to prevent any possible bodily harm caused by incorrect handling of raw materials and solvents used in the process, please read carefully the safety information provided by the supplier.
- Treat waste according to the regulations in force.
- Electrical maintenance of the machine must only be conducted by a qualified electrician.
- In order to avoid damage caused by the impact of pressurized fluids, do not open any connection or carry out any maintenance work on components under pressure until the pressure has been completely eliminated.
- Use appropriate protection for operating, maintenance work or whenever present in the working area of the Machine. This includes but is not limited to the use of a face mask, goggles, gloves, footwear and safety clothing.
- Certain components of the Machine reach temperatures that can cause burns. Do not handle or touch the hot parts in the Machine until they have cooled down.
- In order to prevent any serious harm due to crushing or amputations, do not work with the Machine without safety protection from duly installed moving parts. Make sure that all safety protection is correctly fitted when completing repairs or maintenance work.



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4. SAFE HANDLING OF CHEMICAL PRODUCTS.

Products such as polyisocyanates, organic solvents and diamines should be stored in a place exclusively for and adapted to such a purpose, with restricted access. Maximum temperatures must be strictly adhered to, both in the application and in storage of chemical products, at all times following the manufacturer's recommendations.

- Also, chemical products are to be stored at all times in suitable containers, following the manufacturer's recommendations.
- Containers must not be opened until immediately before being used in order to avoid contamination by damp. Any leftover product after being applied should be put back into the original container and be stored in a dry, ventilated place.
- During cleaning tasks of spilt components, it will be essential to use eye protection, gloves and wearing breathing apparatus. Spilt isocyanate can be collected with any absorbent inert product, such as sawdust. In any case, it is important to avoid skin contact. The absorbent product is to be immediately collected and dumped into an open container through the upper part.
- Throughout the entire operation explained above, the area must be correctly ventilated.

Safety personnel equipment:

Celtipol recommends the following personnel safety equipment for operations with foaming (see table):

- Protective mask for airways.
- Goggles to protect the eyes.
- Headset to protect against noise.
- Gloves to protect hands.
- Protective clothing for the body.



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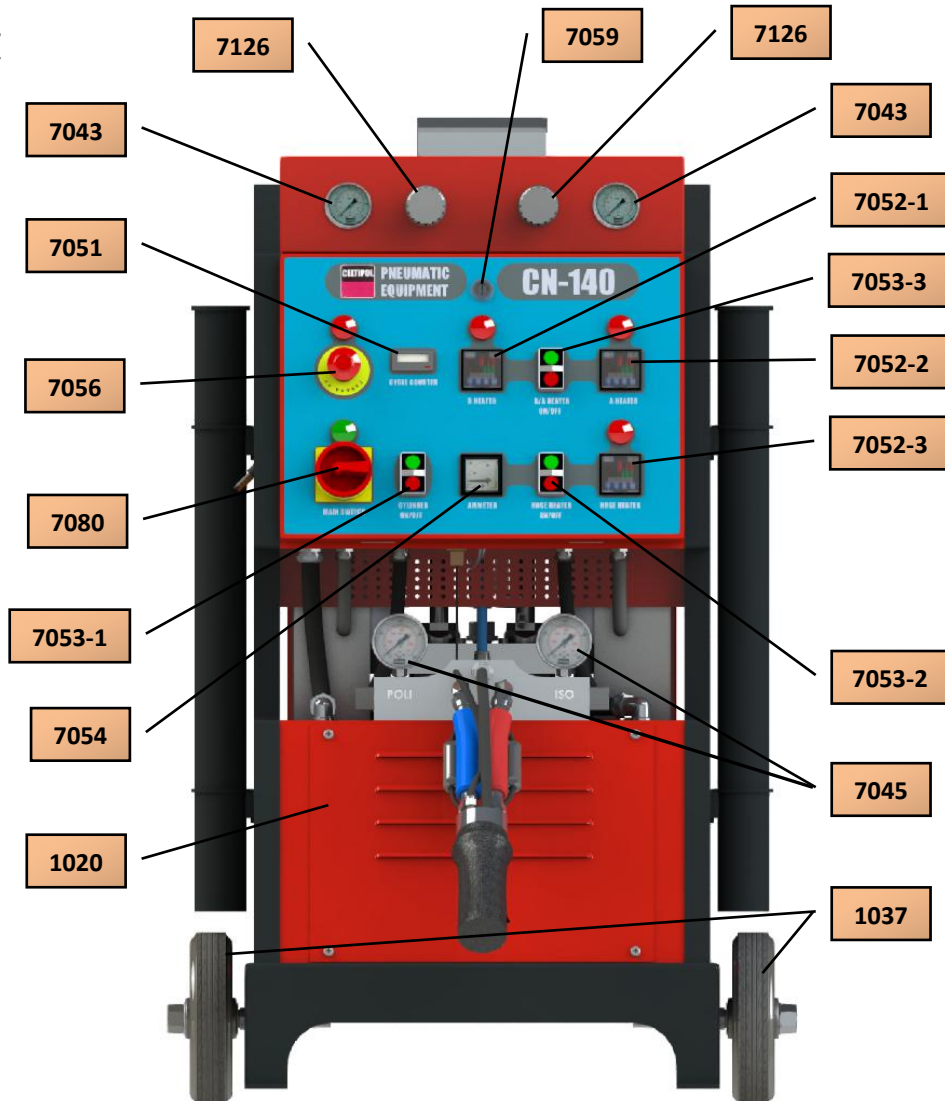
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5. EQUIPMENT TECHNICAL SHEET.

CN 140 PNEUMATIC EQUIPMENT	
<u>1. TECHNICAL CHARACTERISTICS:</u>	
PREHEATER POWER	7.200 W
TRANSFORMER POWER	5.000 W
POWER SUPPLY	12.200 W
MAXIMUM CONSUMPTION	18 A (3x400 V 50/60 Hz)
WORK PRESSURE	140 bar
ADMISSIBLE HOSE LENGTH	80 Ml
MAXIMUM PRODUCTION	9 l/min 11 kg/min
MACHINE WEIGHT	169 Kg
MACHINE DIMENSIONS	720x730x1140 mm (width x depth x height)
<u>2. SYSTEMS:</u>	
➤ Digital automatic controller for temperatures in preheaters and hoses.	
➤ Automatic blocking systems activated by excess pressure or temperature.	
➤ Slave lubrication pump during machine work.	
➤ Consumption ammeter for the hose.	
➤ In an emergency situation, it can operate with transfer pump.	
➤ Air distributor with three outlets.	
➤ Air pressure regulator.	
➤ Protection filters for incoming products.	
➤ Cycle counter with programmed blocking preselect	

6. OVERVIEW

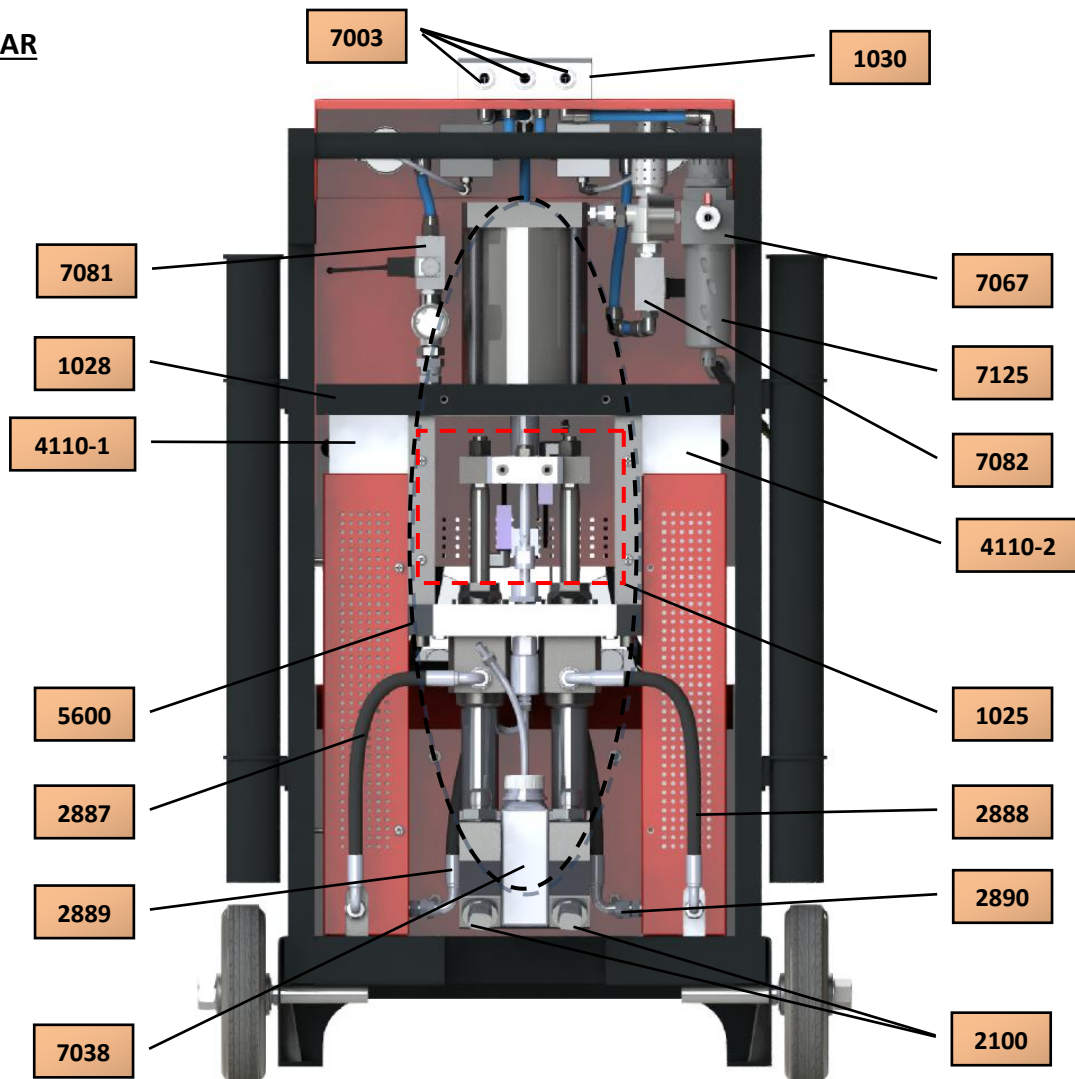
- FRONT



1020..... Transformer cover
 1037..... Wheels.
 7043..... Air pressure gauge.
 7045..... High pressure gauge.
 7051..... Cycle counter.
 7052-1..... Temperature controller POLY.
 7052-2..... Temperature controller ISO.
 7052-3..... Temperature controller HOSE.
 7053-1..... Hydraulic cylinder start-up pushbutton.

7053-2..... Hose start-up pushbutton.
 7053-3..... Heater start-up pushbutton.
 7054..... Ammeter.
 7056..... Emergency stop.
 7059..... Control cabinet lock.
 7080..... Main switch.
 7126..... Air pressure regulator 3/8".

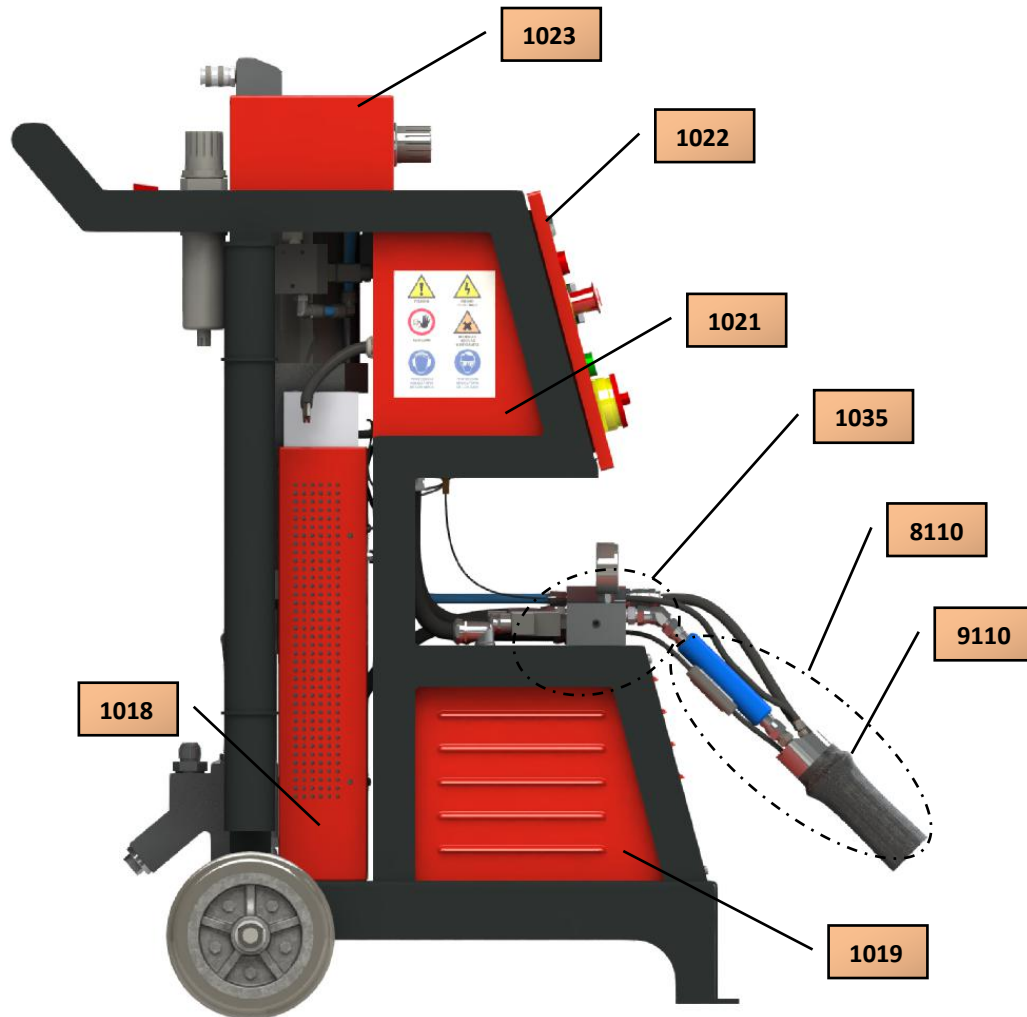
- REAR



1025..... Rear cylinder cover
 1028..... Pump structure support
 1030..... Air distributor for transfer pumps.
 2100..... Liquid filters unit.
 2887..... ISO Pump-Heater Hose
 2888..... POLY Pump-Heater Hose
 2889..... ISO Heater Hose to Output Block
 2890..... POLY Heater Hose to Output Block
 4110-1.....ISO Heater.

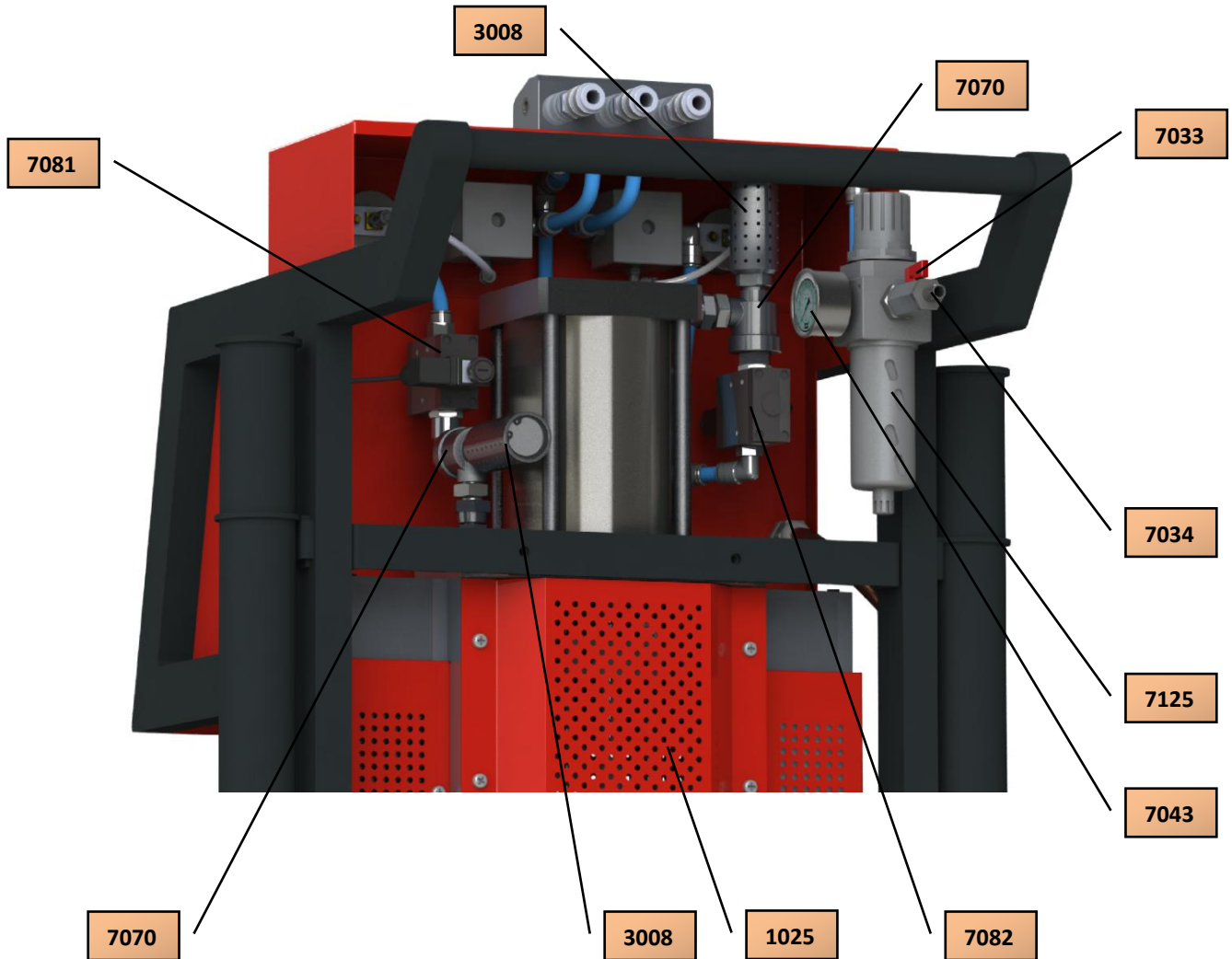
4110-2.....POLY Heater.
 5600..... Pumping group.
 7003..... Female air quick connector 3/8"
 7038..... Lubrication tank
 7067..... 1/2 "air pressure regulator with filter.
 7081..... Solenoid valve N.C.
 7082.....Solenoid valve N.O.
 7125..... Air filter bowl.

- RIGHT SIDE:



1018.....	Heater housing
1019.....	Transformer housing
1021.....	Electrical cabinet
1022.....	Control cover
1023.....	Pressure gauge support plate
1035.....	Hose outlet unit.
8110.....	Machine connection stretch.
9110.....	Black heat shrink tubing

- PNEUMATIC SYSTEM:

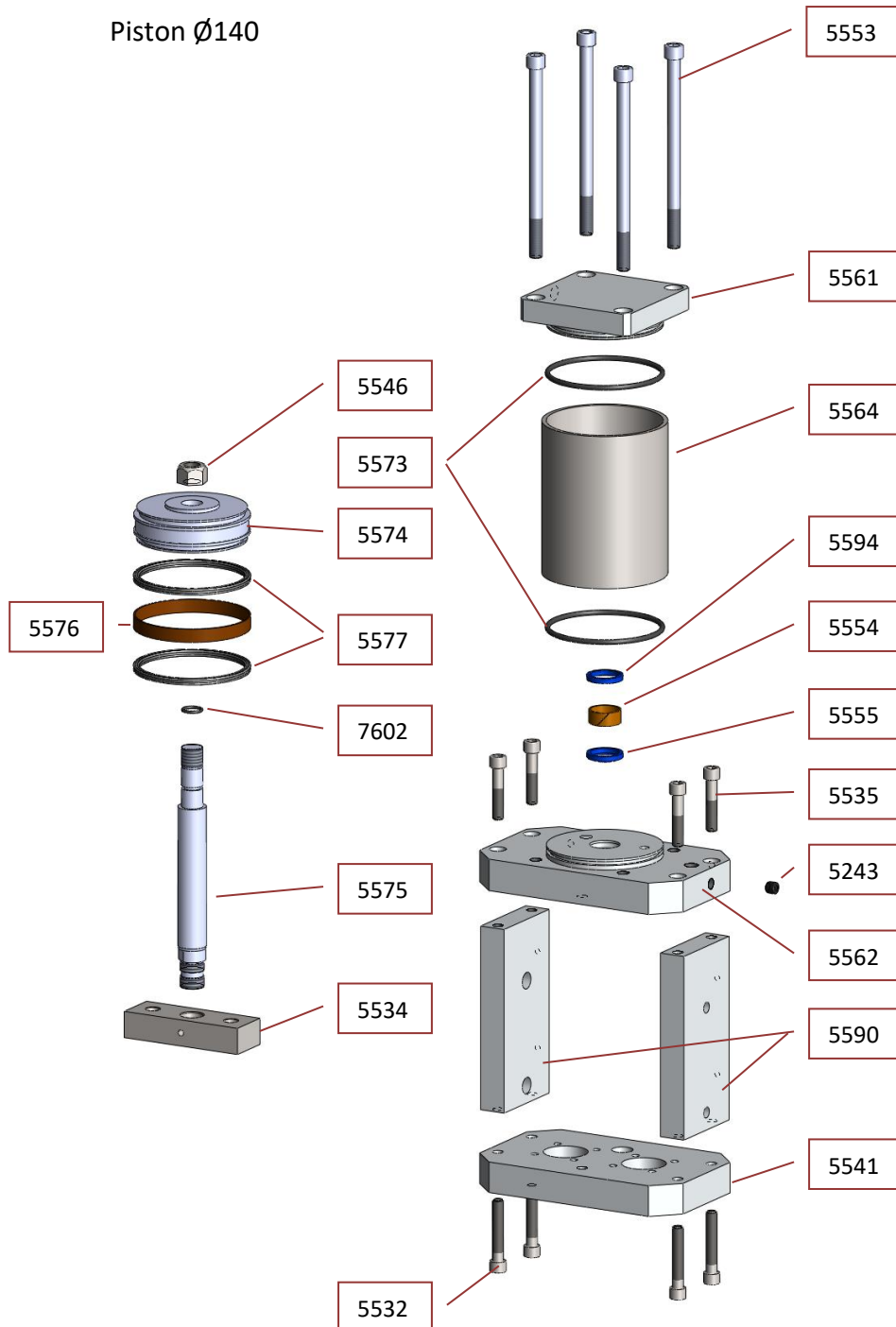


1025..... Rear cylinder cover
 3008..... Mufflers
 7033..... Stopcock 1/2"
 7034..... 1/2 "hose adapter
 7043..... Air pressure gauge
 7067..... 1/2 "air pressure regulator w. filter.

7070..... Quick Air Exhaust Valves
 7081..... Solenoid valve N.C.
 7082..... Solenoid valve N.O.
 7125..... Air filter bowl.

7. 5600 EXPLODED VIEW PUMPING GROUP.

Piston Ø140

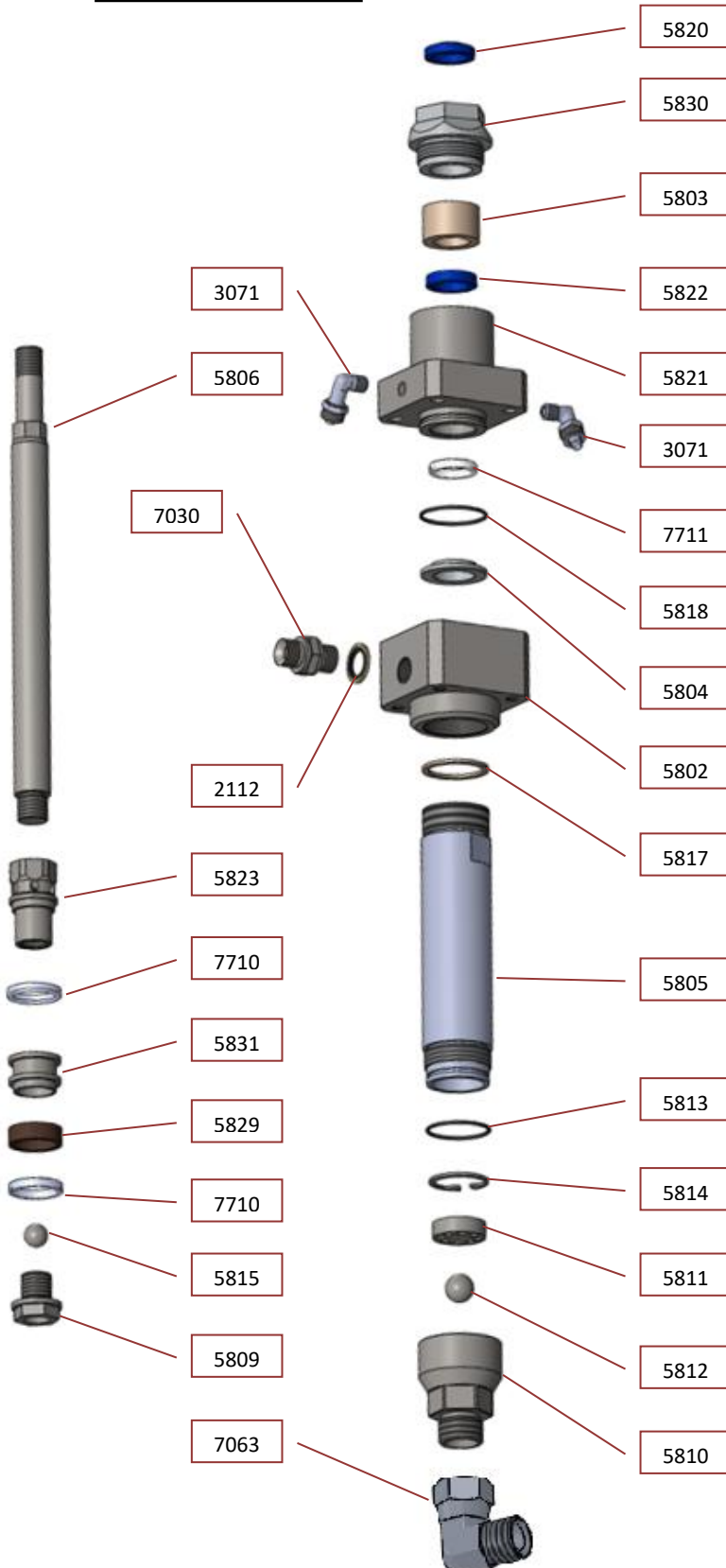


Ref.	DESCRIPTION
5243	1/4"NPT plug
5532	Screw M12x70 (x4)
5534	Pump release
5535	Screw M12x60(x4)
5541	Bottom base plate
5546	Piston nut M20
5553	Screw M14x200 (x4)
5554	Rod guide ring
5555	Wiper seal
5561	Cylinder head
5562	Bottom cylinder head
5564	Cylinder body
5573	O-ring Ø132int x 5.3 (x2)
5574	Piston Ø140
5575	Piston rod
5576	Piston seal
5577	Piston rings (x2)
5590	Plate supports (i/d) (x2)
5594	Rod seal 40x32x6.3
7602	O-ring Ø18int x 3

SPARE PARTS KIT (2209)	
5554	Rod guide ring
5555	Wiper seal
5573	O-ring Ø132int x 5.3 (x2)
5576	Piston seal
5577	Piston rings (x2)
5594	Rod seal 40x32x6.3
7602	O-ring Ø18int x 3

8. EXPLODED VIEW PUMPS.

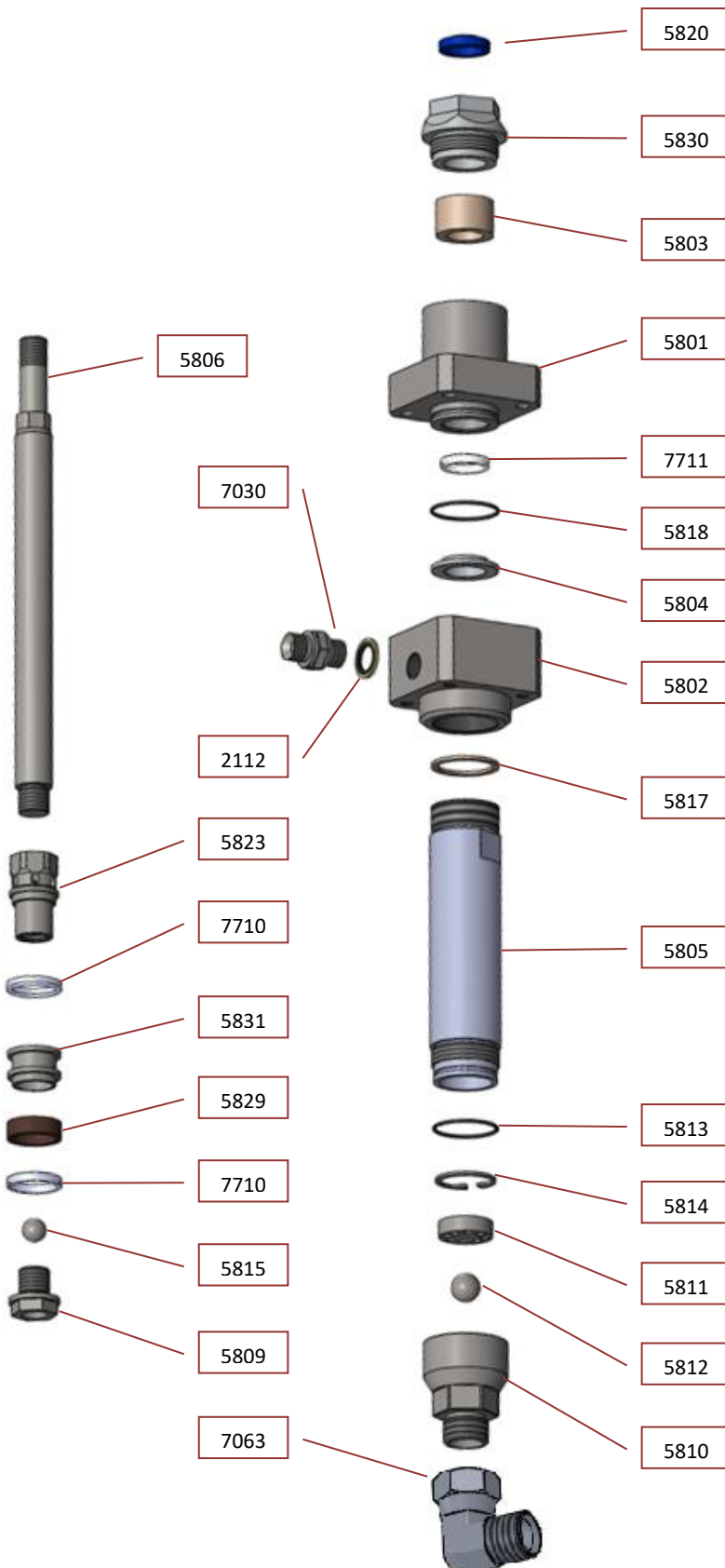
7141 ISO pump (Ø32)



Ref.	DESCRIPTION
2112	Watertight washer 3/8"
3071	Elbow with racor 1/8" NPT (x2)
5802	Upper base
5803	Nylon guide
5804	Seal stop ring
5805	Cylinder body
5806	Piston rod
5809	Piston head
5810	Lower base
5811	Sphere stop
5812	Sphere Ø17
5813	O-ring Ø35 int. x 2
5814	Safety ring Ø34x1.75
5815	Sphere d15
5817	Nylon cylinder joint stop
5818	O-ring Ø34 int. x 2
5820	Wiper seal
5821	ISO packer bracket
5822	Rod seal
5823	Double collar piston
5829	Piston guide
5830	Seal and housing wiper seal
5831	Guide and buffer seal housing
7030	Joint G3/8" M-M
7063	Elbow 90° M-F 3/4"
7710	Varisel buffer seal (x2)
7711	Varisel buffer seal

SPARE PARTS KIT (2206)	
5803	Nylon guide
5829	Piston guide
5813	O-ring Ø35 int. x 2
5818	O-ring Ø34 int. x 2
5820	Wiper seal
5822	Rod seal
7710	Varisel buffer seal (x2)
7711	Varisel buffer seal

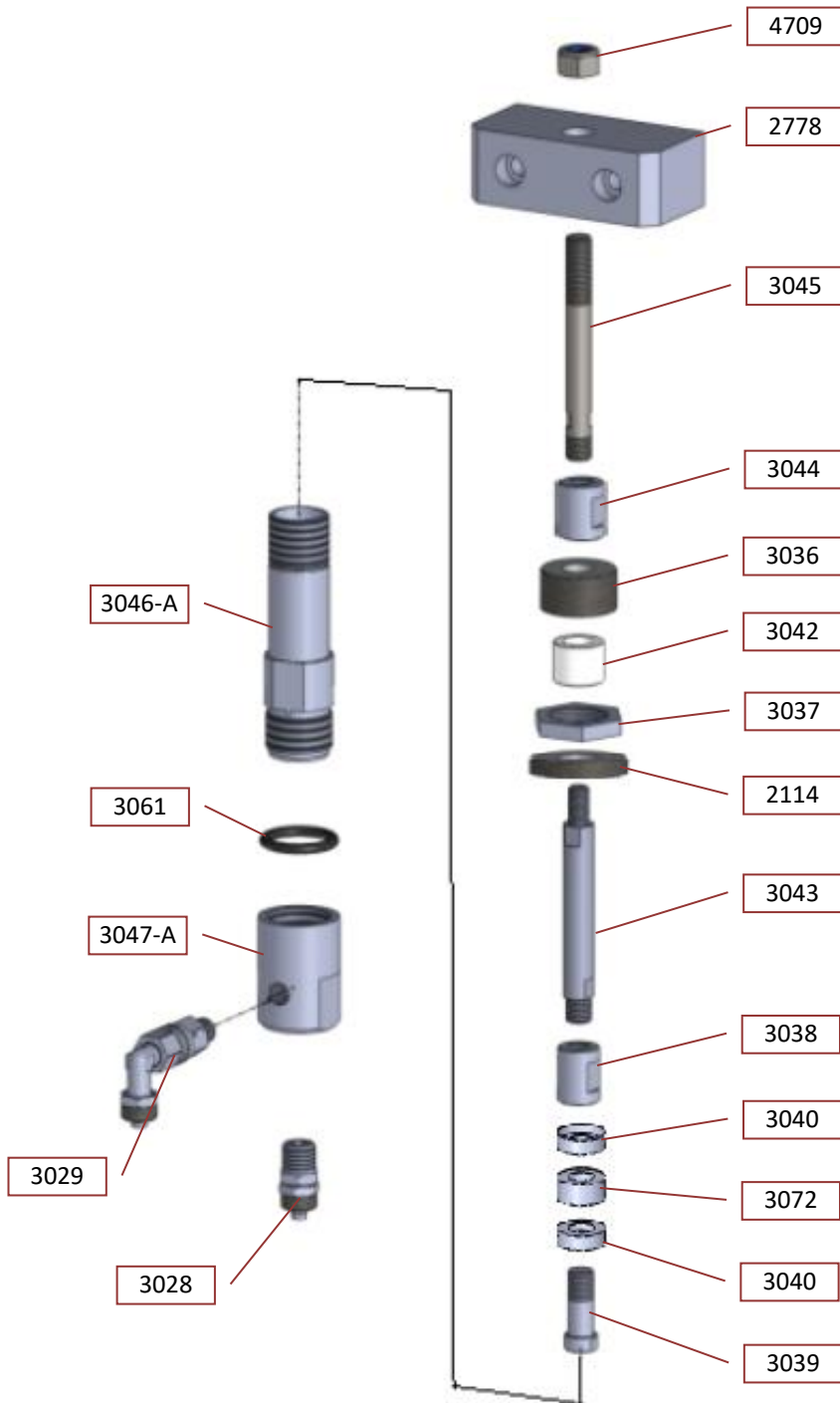
7142 POLY pump (Ø32)



Ref.	DESCRIPTION
2112	Watertight washer 3/8"
5801	POLI packer bracket
5802	Upper base
5803	Nylon guide
5804	Seal stop ring
5805	Cylinder body
5806	Piston rod
5809	Piston head
5810	Lower base
5811	Sphere stop
5812	Sphere Ø 17
5813	O-ring Ø35 int. x 2
5814	Safety ring Ø34x1.75
5815	Sphere d15
5817	Nylon cylinder joint stop
5818	O-ring Ø34 int. x 2
5820	Wiper seal
5823	Double collar piston
5829	Piston guide
5830	Seal and housing wiper seal
5831	Guide and buffer seal housing
7030	Joint G3/8" M-M
7063	Elbow 90° M-F 3/4"
7710	Varisel buffer seal (x2)
7711	Varisel buffer seal

SPARE PARTS KIT (2207)	
5803	Nylon guide
5829	Piston guide
5813	O-ring Ø35 int. x 2
5818	O-ring Ø34 int. x 2
5820	Wiper seal
7710	Varisel buffer seal (x2)
7711	Varisel buffer seal

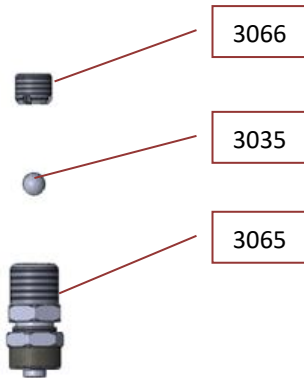
- 3030 LUBRICATION PUMP:



Ref.	DESCRIPTION
2114	Washer
2778	Pump release
3028	Inlet non-return valve
3029	Outlet non-return valve
3036	Upper cover
3037	Retaining nut
3038	Piston rod-piston joint
3039	Piston bracket
3040	Piston seal
3042	Stop guide
3043	Lower Piston rod
3044	Piston rod joint
3045	Upper Piston rod
3046-A	Cylinder body
3047-A	Pump base
3061	O-ring
3072	Piston guide
4709	M12 self-locking nut

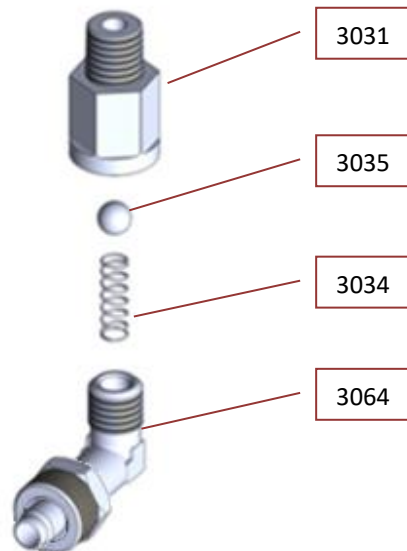
SPARE PARTS KIT (2204)	
3040	Piston seal (x2)
3042	Stop guide
3061	O-ring
3072	Piston guide

- **3028 Inlet non-return valve:**



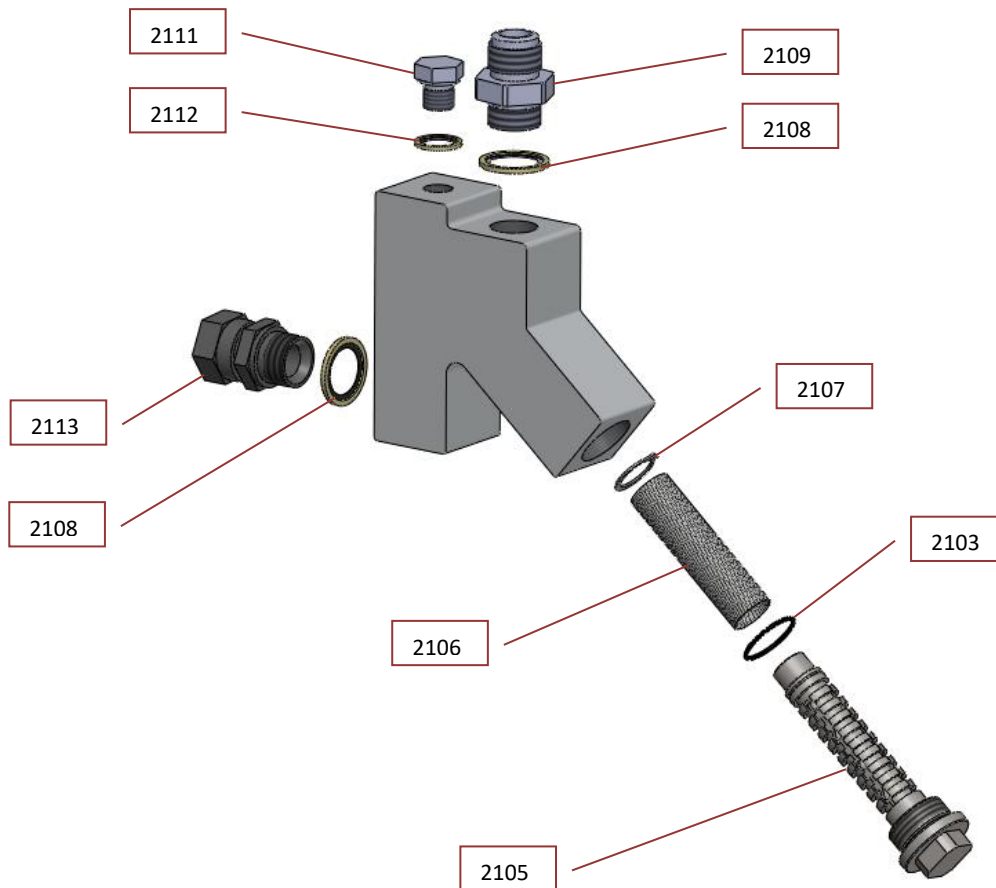
Ref.	DESCRIPTION
3035	Sphere Ø6
3065	Fitting 1/4"
3066	Stop 1/8"

- **3029 Outlet non-return valve:**



Ref.	DESCRIPTION
3031	Stop 1/8"
3034	Spring Ø5
3035	Sphere Ø6
3064	Lubrication elbow

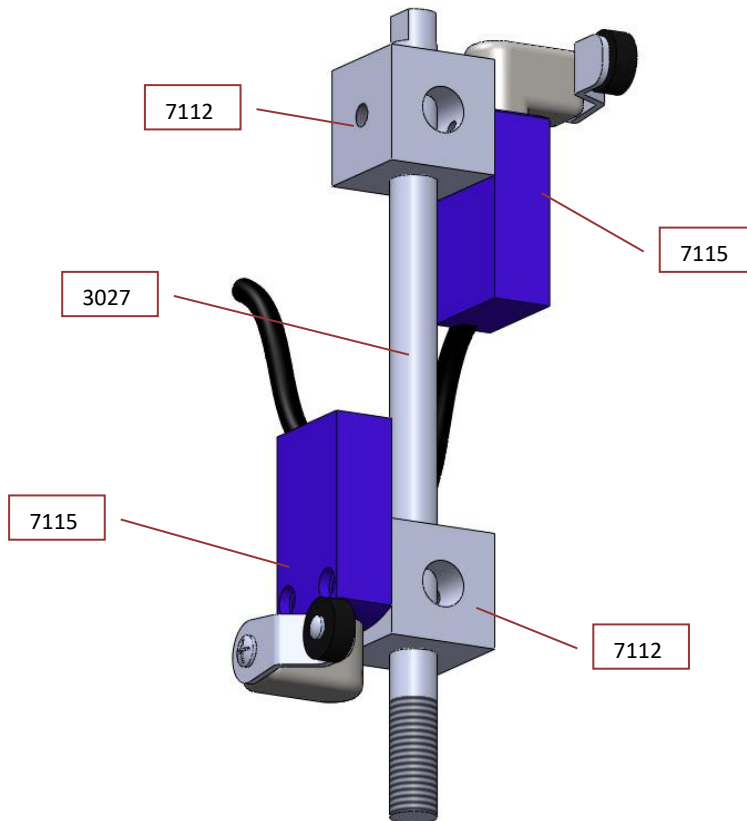
9. 2100 LIQUID FILTERS UNIT



Ref.	DESCRIPTION
2103	O-ring Øin. 30x2
2104	Filter body
2105	Filter holder
2106	Filter
2107	Safety ring
2108	Watertight washer 3/4"
2109	M-M 3/4"-1"1/16 Joint
2111	Plug 3/8"
2112	Watertight washer 3/8"
2113	Joint M 3/4" - F 3/4"

SPARE PARTS KIT (2208)	
2103	O-ring Øin. 30x2
2106	Filter

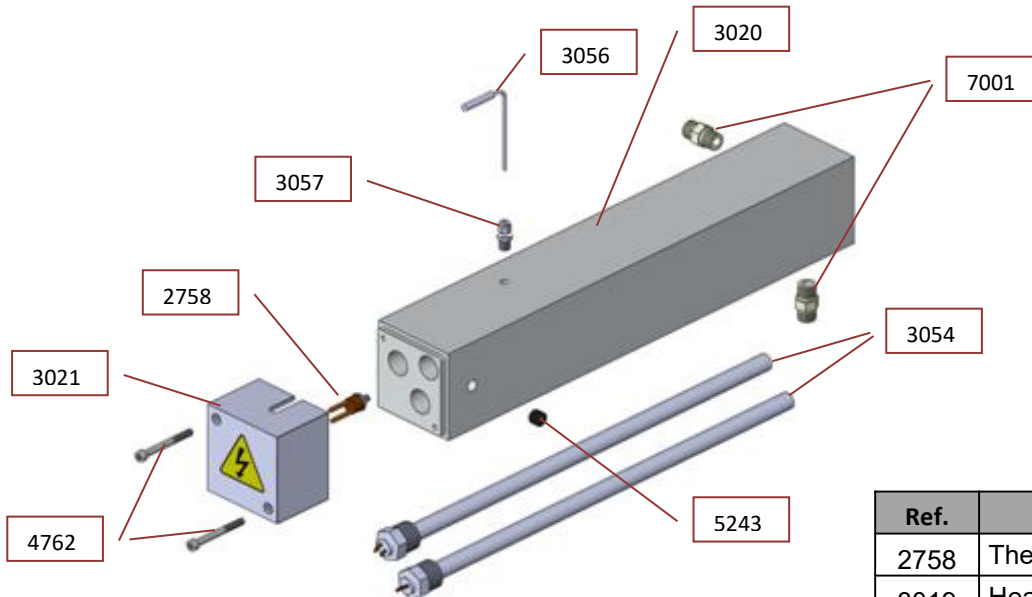
10. ENDS OF STROKE.



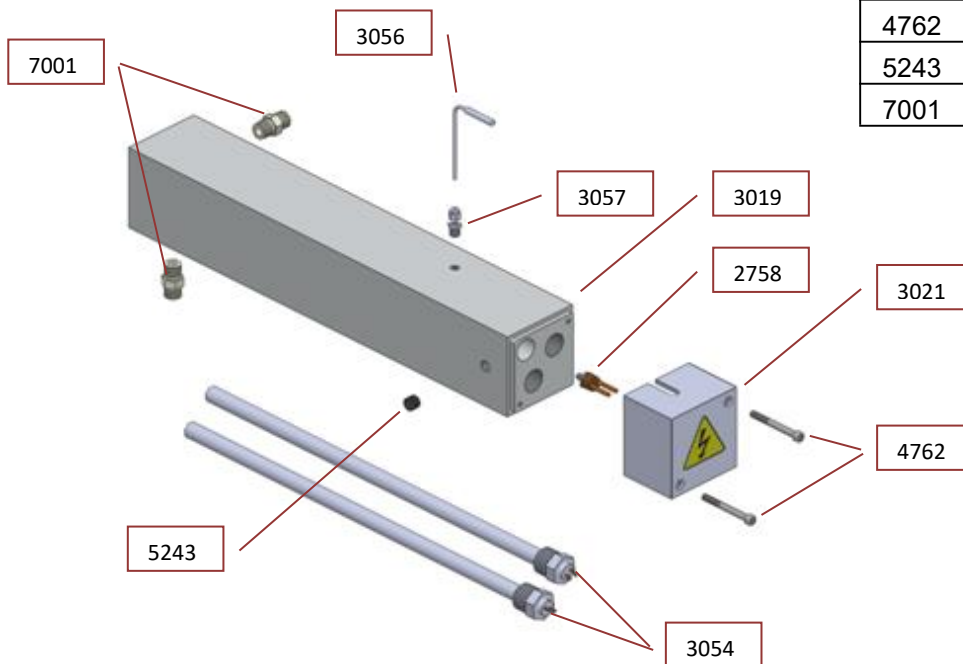
Ref.	DESCRIPTION
3027	Vertical bracket
7112	End of stroke bracket
7115	Limit switch

11. 4110 LIQUID HEATER.

Right side (POLY):

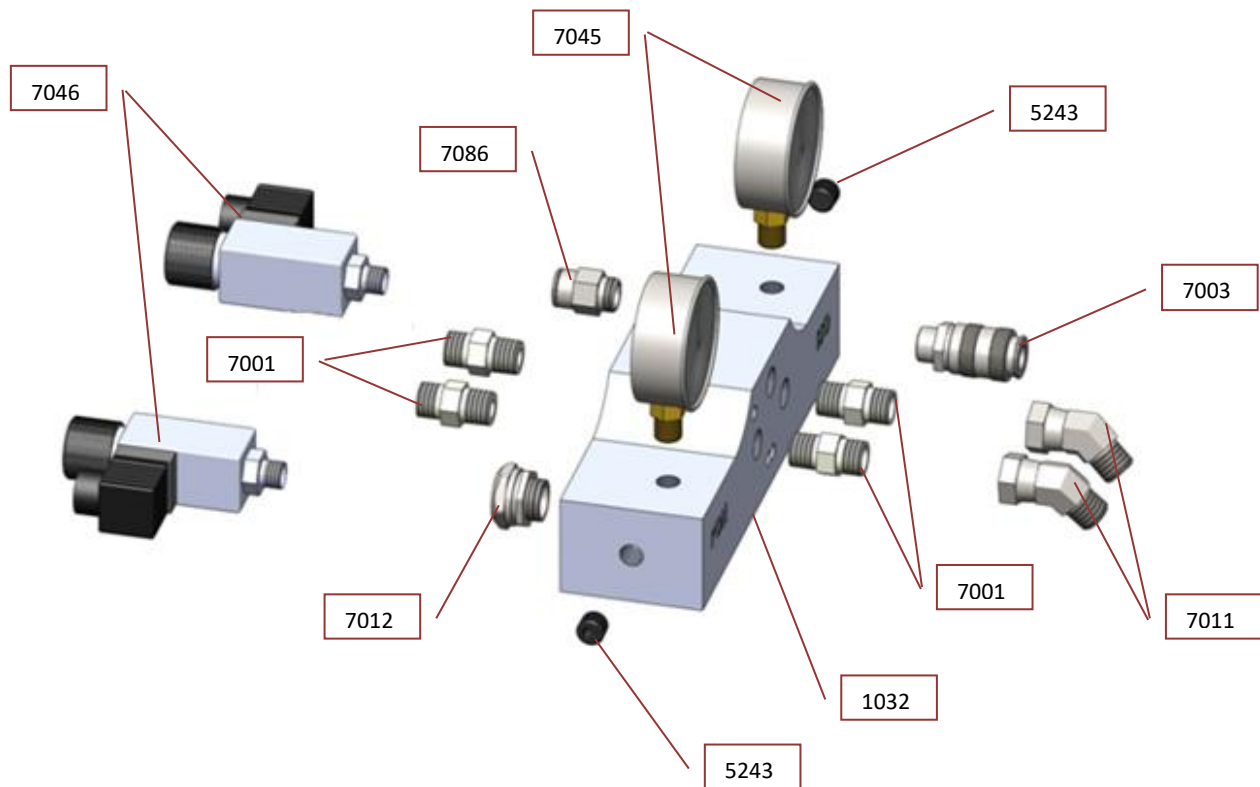


Left side (ISO):



Ref.	DESCRIPTION
2758	Thermostat
3019	Heater (ISO)
3020	Heater (POLI)
3021	Heater cover
3054	Ø16x485 400V/1800W
3056	Thermocouple probe
3057	Probe connector
4762	Screw M6 x 60
5243	Plug NPT 1/4"
7001	M G3/8"-M 3/8"NPT joint

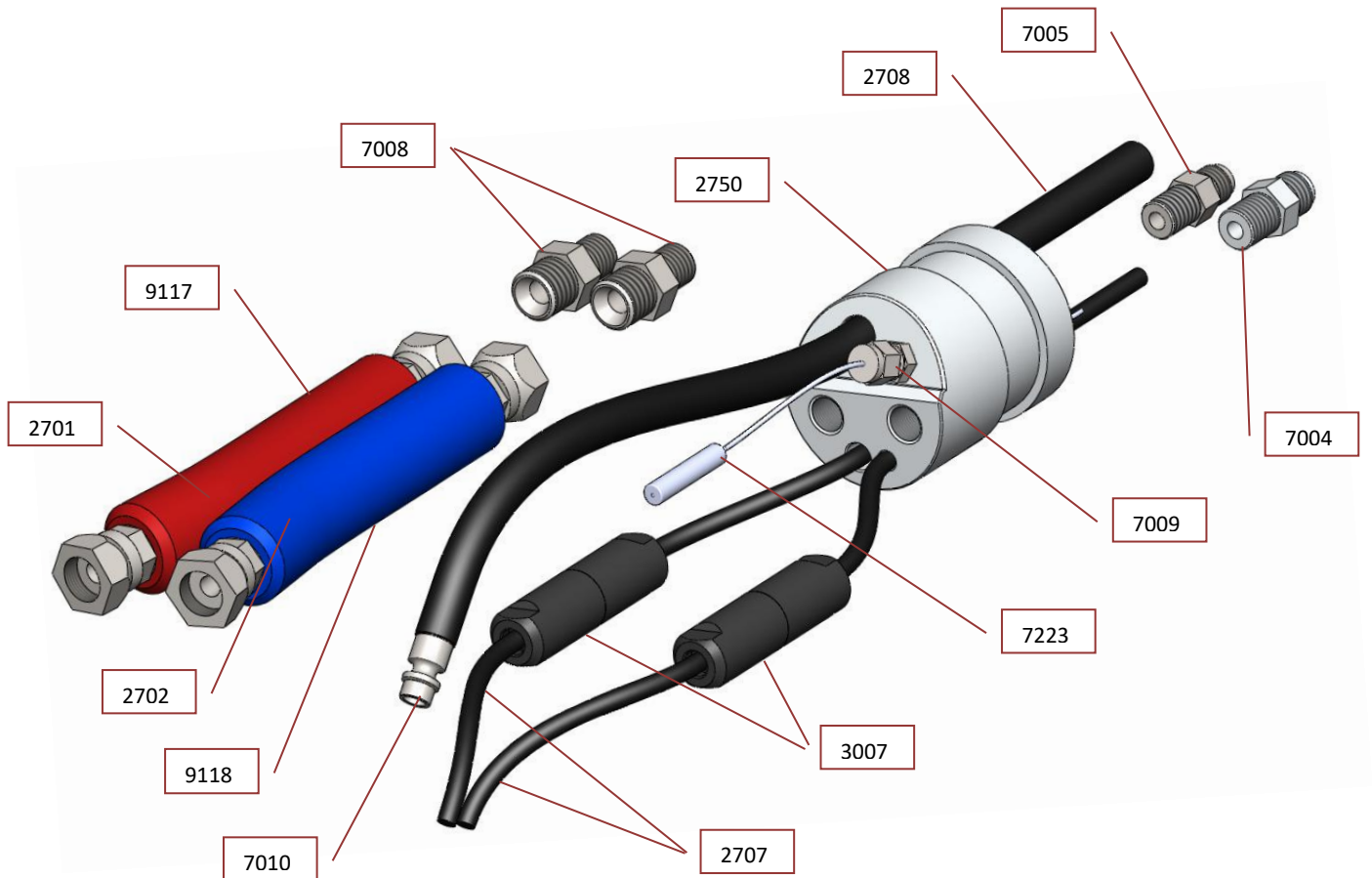
12. 1035 HOSE OUTLET UNIT.



Ref.	DESCRIPCIÓN
1032	Hose outlet block
5243	Plug 1/4" NPT
7001	M-M 3/8" NPT-G3/8" joint
7003	Swift air connector female 3/8"
7011	45° joint G3/8" F – G3/8" M
7012	Cable gland
7045	High pressure gauge product
7046	Pressure switch
7086	M3/8" swift coupling Ø12

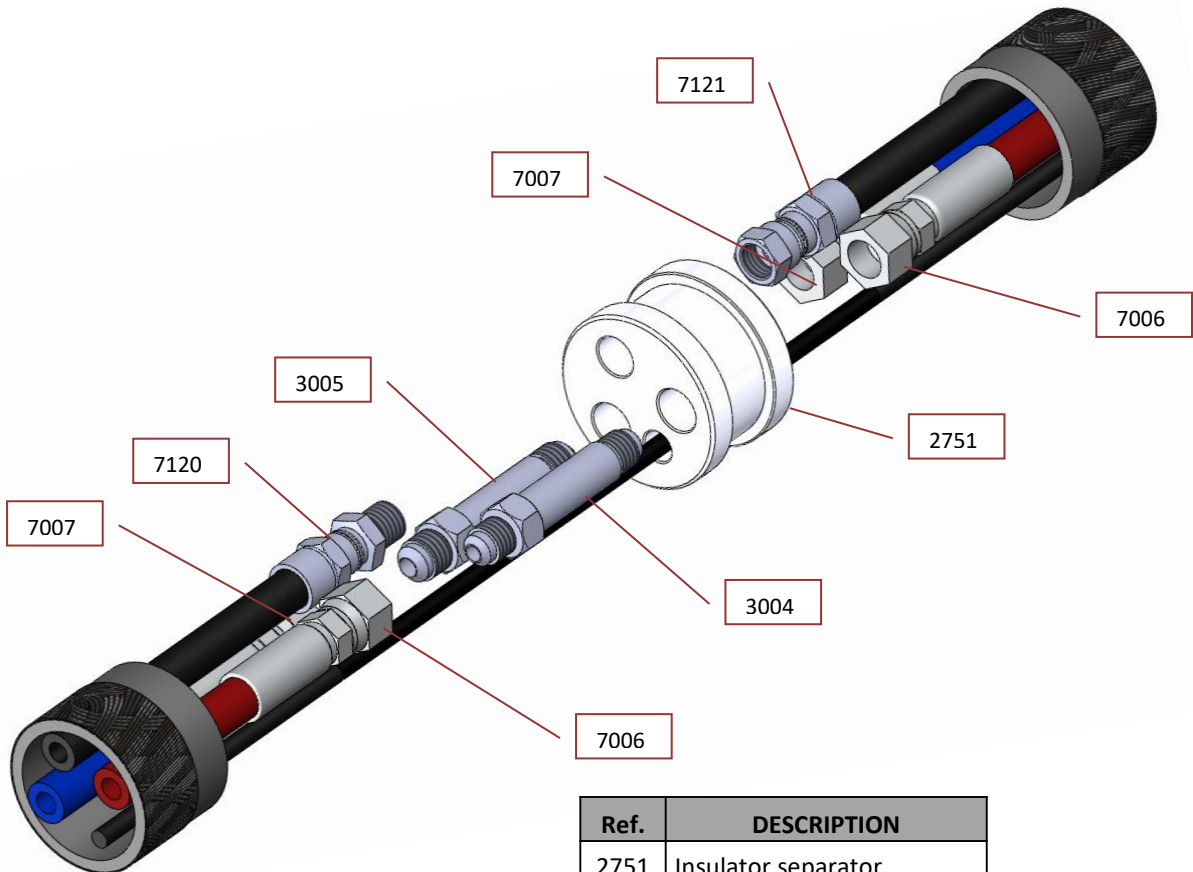
13. HOSE.

8110 MACHINE CONNECTION STRETCH



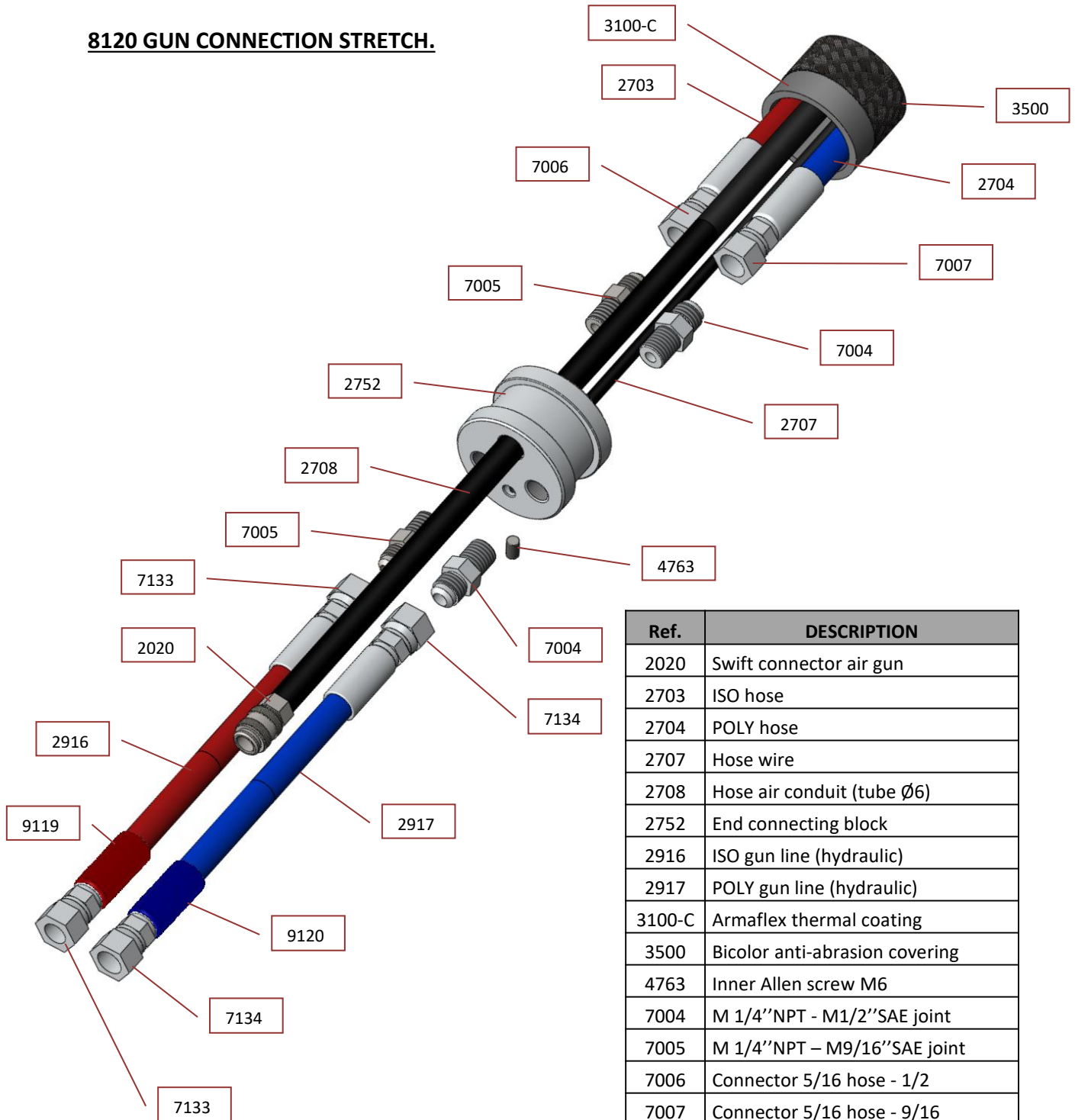
Ref.	DESCRIPTION
2701	ISO line
2702	POLI line
2707	Hose wire
2708	Hose air conduit
2750	Anterior connecting block
3007	Electrical connectors
7004	Joint NPT1/4" M - SAE 1/2" M
7005	Joint NPT1/4" M - SAE 9/16" M
7008	Joint NPT 1/4" M - G 3/8" M
7009	Probe connector unit
7010	Swift air connector male
7223	Hose temperature probe
9117	Red heat shrink tubing (ISO)
9118	Blue heat shrink tubing (POLY)

8130 HOSE FITTING.



Ref.	DESCRIPTION
2751	Insulator separator
3004	ISO hose fitting
3005	POLI hose fitting
7006	Connector 5/16 hose - 1/2
7007	Connector 5/16 hose - 9/16
7120	Male air connector
7121	Female air connector

8120 GUN CONNECTION STRETCH.



Ref.	DESCRIPTION
2020	Swift connector air gun
2703	ISO hose
2704	POLY hose
2707	Hose wire
2708	Hose air conduit (tube Ø6)
2752	End connecting block
2916	ISO gun line (hydraulic)
2917	POLY gun line (hydraulic)
3100-C	Armaflex thermal coating
3500	Bicolor anti-abrasion covering
4763	Inner Allen screw M6
7004	M 1/4" NPT - M1/2" SAE joint
7005	M 1/4" NPT - M9/16" SAE joint
7006	Connector 5/16 hose - 1/2
7007	Connector 5/16 hose - 9/16
7133	Connector 1/4 hose - 1/2
7134	Connector 1/4 hose - 9/16
9119	Red heat shrink tubing (ISO)
9120	Blue heat shrink tubing (POLY)

14. START-UP SEQUENCE.

1. Install the machine completely fixed and stable.
2. Electrical connection of the unit. Ensure that the electrical connection is correct and that the line is suitably shielded (magnetothermal and differential shielding).
3. Connect the machine to earth using the terminal fitted for the purpose (only necessary in the event of the external power supply hose has no earth conductor).
4. Unroll the hoses.
5. Ensure that the emergency pushbutton is activated.
6. Connect product tanks to the machine by transfer pumps (they can be directly connected to the machine in the event of emergency).¹
7. Connection of compressed air (external supply) to the distributor.
8. Open the main air valve located in the air distributor.
9. Adjust the pressure regulator to between 6 and 8 bars.
10. Unscrew the loose nut on each stopcock on the gun and insert the end of each hose into their respective tanks (this task of recirculating liquids must be carried out before using the machine for bleeding the air in the same).²
11. Put the general switch in the ON position.
12. Connect the cylinder start button to fill the pumps with liquid.
13. Select the required temperature using the thermostat for each product and connect the same with the start-up pushbutton.³⁻⁴
14. Select the required temperature on the hose using the thermostat⁵.
15. As explained in point 10, these functions are performed without the gun for bleeding air (leave the cylinder activated for a few minutes for effective bleeding).
16. Stop the machine to be able to perform the following procedures.
17. Reconnect both loose nuts on each product to the gun.
18. Open the air stopcock on the gun.
19. Open the air stopcock on both products on the gun.
20. The system is now ready to start the application⁷.
21. Use the appropriate means of personal protection⁸.

1 Do not start up the system without material in the pumps or tanks.

2. Do not unscrew the loose nut on the gun with the machine in

3 Do not connect the heaters without products.

4 The operational temperature will vary depending on climatic conditions or the reaction of the different brands of the products.

5 Where necessary to alter the length of the hose, it will be necessary to first alter the output voltage of the transformer (Consult the Technical Assistance service).

6 Do not open the taps on the products without first opening the air stopcock (on the gun).

7 Do not place any part of the body in the direction of the projection nor project towards other people.

8 It is advisable to use protective goggles, air mask, protective clothing and other safety equipment. Manufacturers' recommendations and the instructions for the products used should be followed.



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15. SELECTING WORK TEMPERATURE.

Using the temperature controllers on each product and on the hose (EMKO ESM 4420), the ideal temperature can be selected depending on the products to be used and the projection work to be carried out. (The controllers are factory set with the factory temperature selected according to customer requirements).

In order to select the required temperature, follow these steps:

1. Press PSET on the controller appearing on the PSET function screen.
2. With the keys $\Leftarrow \Rightarrow$ the temperature range is increased or decreased.
3. Once the ideal temperature has been set, press ASET to keep the selected value, resetting the controllers screen to its initial status.

16. DAILY STOP SEQUENCE.

1. Close the stopcock taps on both products on the gun.
2. Activate the gun trigger two or three times to clean⁹.
3. Deactivate heating in the hose with the stop pushbutton¹⁰.
4. Deactivate heaters with the stop pushbutton.
5. Deactivate the cylinder with the stop pushbutton.
6. Open the stopcock taps on the products in the gut and pull the trigger several times until the pressure in the products decreases below 30 bars (see output pressure gauges) and check that the pump Piston rods are at their lowest position and fully insert them inside the body of the pump in order to guarantee autolubrication.
7. Deactivate the pump with the stop pushbutton.
8. Disconnect the main switch.
9. Close the stopcock taps for products on the gun and pull the trigger 2 or 3 times.
10. Close the air stopcock on the gun.
11. Dismantle the side and front housings of the gun for cleaning. Lubricate with Celtipol grease¹¹.
12. Close the main compressed air valve on the machine.
13. Electrical disconnection of the machine.

⁹ Observe if there are any losses in the injectors by repeatedly activating the trigger .

¹⁰ The hoses with hot products should not be bled under no circumstance.

¹¹ Never dismantle the side blocks on the gun with the product taps open since the gun may fill up with foam and be a risk for the user.



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17. EXTENDED STOP SEQUENCE (OVER ONE MONTH).

- Ensure that the stopcock taps on the products on the gun are fully closed.
- Connect the transfer pumps to two separate containers, with an approximate amount of 10 litres of solvent in each.
- Spray material on the side blocks, opening the stopcock taps in the products on the gun. The jet should be aimed at an appropriate container until clean solvent comes out of the side blocks.
- Connect the transfer pumps to two separate containers, with an approximate amount of 10 litres of D.O.P. plasticizer.
- Re-add the spray until all the solvent has been bled from the system and only the plasticizer comes out of the side blocks¹².
- Apply a thick layer of Celtipol grease to each side of the front housing of the gun.
- Once again, place the side blocks on the front housing of the gun¹³.
- Remove the adapters from the transfer pumps from the product tanks. Clean the plug adapters with solvent and then cover with Celtipol grease.
- Clean the large needles in the plug on the material tanks with solvent, cover with Celtipol grease; reinstall the plugs/caps on the drums when received from the material supplier.

¹² Do not bleed the D.O.P. plasticizing fluid from the accumulated system.

¹³ Grease should appear on the tip of the mixing chamber. Excess grease should be spread over the rest of the gun to help to eliminate any excess accumulated spray.



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18. SYSTEM MAINTENANCE.

- ✓ Lubricate the Piston rods when stopping the machine with D.O.P. (Daily) 17•
- ✓ Clean and refill the gun with white lithium grease or petroleum jelly (daily).
- ✓ Clean filters on the product input with ethyl-glycol (weekly).
- ✓ Regularly refill the lubricating bowl in the filter-regulator-lubricator unit with liquid petroleum jelly.
- ✓ Regularly empty the bleed water from the compressed air input regulator.
- ✓ Regularly check the emergency button trigger.
- ✓ Regularly check the safety elements for over-temperature.
- ✓ Regularly check the status of the machine's internal lines, both for air and products.
- ✓ Regularly check the status of the hoses (for abrasions or cuts).

19. GENERAL BREAKDOWNS.

Another way of avoiding incorrect handling of the equipment and to avoid any possible situation of risk is to know how to detect the source of the more frequent breakdowns, as well as to know how to solve them. To achieve this, essentially, the operator/user should be acquainted with:

- The normal working order of the equipment, with its corresponding sequences of start-up and stop.
- The flow diagram of the materials going through the equipment.
- The appearance of the product perfectly applied and its possible variables.

Since the ultimate aim of the equipment is the correct application and finish of the foam, it should be the final appearance of this that we should, in the first place, examine to locate any possible breakdown or anomalies in the application process and, in this way, identify the material that is missing (isocyanate or Polioli).

Therefore, the most appropriate procedure to locate breakdowns is as follows:

1. Identify the product missing.
2. Check the pressure gauge corresponding to the material that is missing in such a manner that if the reading is higher than normal, there is an obstruction problem between the pressure gauge and the point in the chamber where the gun makes the mix. Conversely, if the reading is lower than normal, there is an obstruction problem between the pressure gauge and the transfer pumps¹⁴.
3. In the event that the hydraulic pressure in the material that is deficient is higher than normal, we should start to check for possible causes for the obstruction from the furthest point away from the unit (gun) and move upstream following this sequence:

I. Gun: ¹⁴

- ✓ Ensure that the product tap is fully open.
- ✓ Check the cleanliness of the front hole on the mixing chamber.
- ✓ Check for the extent of cleanliness in the filter grille.
- ✓ Check the cleanliness of the side hole on the mixing chamber.

II. Hose:

- ✓ Ensure that the hoses are not blocked.

4. In the event that the hydraulic pressure in the material that is deficient is lower than normal, we should start to check for possible causes for the obstruction in the furthest point away from the machine (product feed) and move downstream, starting with the products tanks:

- ✓ Check for product in the tanks.
- ✓ Check the temperature of the material, since an excessively cold material, especially in the bottom of the tank, will increase the viscosity of the material and will block the transfer pumps. Conversely, excessive temperature in the material, on the polio side, will cause irregular properties in the material.
- ✓ Check the status of the dosing pumps, paying special attention to determine if the flash appears in the ascending or descending run. If the flash appears on the descending run, check the seating of the lower ball. If the flash appears on the ascending run, check the seating of the upper ball.

In any case, repair works should be carried out as soon as possible. The unit should be open and in contact with the air as brief a time as possible in order to avoid other problems such as incoming humidity in the system or crystallization of the isocyanate.

In the event of the unit being exposed to the atmosphere, it will be vital to make it work for enough time to shift the material that there was in the unit when opened¹⁵.

¹⁴ We should only concern ourselves with the hydraulic pressure on the side where the material is lacking. Furthermore, we should bear in mind that the pressures recorded on both pressure gauges do not necessarily have to coincide due to the different products used, different viscosities, etc.

¹⁵ Prior to any kind of handling or repair of the gun, discharge all the pressures in the fluid and air.



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20. LOCATING INCIDENTS.

The CN-130 machine has been designed and built to withstand severe work conditions with a high degree of reliability, on the condition that it is used and maintained in the appropriate manner. See below for information on possible incidents that may cause problems preventing continuing to operate with the Machine. The information provided should be use as a guide to be able to detect and solve most of the problems before resorting to the Celtipol technical assistance service. In any case, feel free to contact the technical assistance service where a team of qualified technicians will attend to you and will assess you wherever you may require.

Repairs conducted by non-qualified personnel or the use of spare parts that are not the originals may be hazardous for the operator.

Possible incidents:

1. Failure of the electrical supply:

To switch on the machine, the main switch must be set to the ON position , lighting up the green LED light located above the switch. If this LED does not light up, this indicates that the electrical power does not exist or is faulty.

2. Emergency stop is activated:

With the emergency stop button activated (the electrical power in the control panel is interrupted, causing a stop during the operation of the machine or making it impossible to start operation.

Activation is visualized by the red LED located above.

To unblock the emergency stop, pull the emergency button in the opposite direction to the control panel.

3. Short-circuit electrical overload.

The control panel has a magnetothermal switch which, in the event of an electrical overload or a short circuit, causes the electrical current to cut off, and must be activated manually once the fault has ceased.

4. Unbalanced pressures:

Decompensation of pressures occurs when an obstruction in the hose or in the gun prevents one of the components to be freely released through the gun chamber when projected or when a problem in the pumping system prevents one of the components from being able to reach the gun in the required amount.

(Identifying which component causes decompensation is relatively easy if we consider that the chemical components used in Polyurethane foaming systems are of a different color. By observing the color of the material coming out of the gun you will know which component is missing).

To determine whether decompensation occurs as a result of an obstruction or as a result of a problem in the pumping system, project with the gun, observe the pressure indicated on the pressure gauge in the other component: if the pressure of the missing component is higher, decompensation is the result of an obstruction. If the pressure is lower, decompensation is the result of a problem in the pumping system.

5. Cavitation

Cavitation occurs when the pumping system requires a greater volume of material than that supplied by the feeding system, leading to the formation of a vacuum in the dosing pump. The causes that can cause cavitation are as follows:

- a. The transfer pump fails to supply the required volume. The problem may be that the pump does not meet the required characteristics, the lack of air supply to the pump or that the pump is faulty. A 2:1 ratio pump is recommended for isocyanate transfer and a supply hose with a minimum internal diameter of 20mm.
- b. High viscosity. Polyurethane foaming systems normally require a minimum transfer temperature of 12°C. With lower temperatures, the product increases its viscosity making pumping difficult. When environmental conditions do not allow the products to be kept at a minimum temperature of 12°C, auxiliary heating elements must be used to adapt the products to the minimum temperature required for transfer.
- c. The product inlet filter is obstructed.
- d. There has been wear and tear on the gaskets or pump seals preventing the supply of the required product.

6. Failure in the ends of stroke in change of direction.

The dosing pump system has two limit switches to change the direction of the pumping unit.

If one of them fails, the pump unit will lock in position near where the end of stroke has failed.

Check:

- a. That there are no foreign bodies preventing the contact of the plate with the end of stroke.
- b. Manually activate the directional valve to rule out any failure in the same.
- c. Electrical current in the ends of run.

7. Safety pressure switches:

The hydraulic circuit of each product has a factory set safety pressure switch at a pressure limit depending on the size of the pumps installed in the machine. When the limit pressure is reached, the machine stops running and the red light above the temperature controllers lights up (this light comes on when there is an overpressure - it is displayed on the pressure gauge - or an over-temperature - an alarm goes off on the temperature controller -).

Until the pressure falls below the set limit, the machine cannot be restarted by resetting the push-buttons at the start of each function.

8. Temperature controllers

Product and hose temperature control is established. The machine has a temperature probe installed in each of the heaters and a probe in the hose that, through their respective controllers on the control panel, can adjust the temperature according to customer requirements.

In the temperature controllers, the safety temperature is adjusted which, if at any time this temperature is exceeded, the Machine stops operating and an alarm is set up in the temperature controller at the same time that the red pilot light located in the upper part of the controller where the alarm is created lights up.



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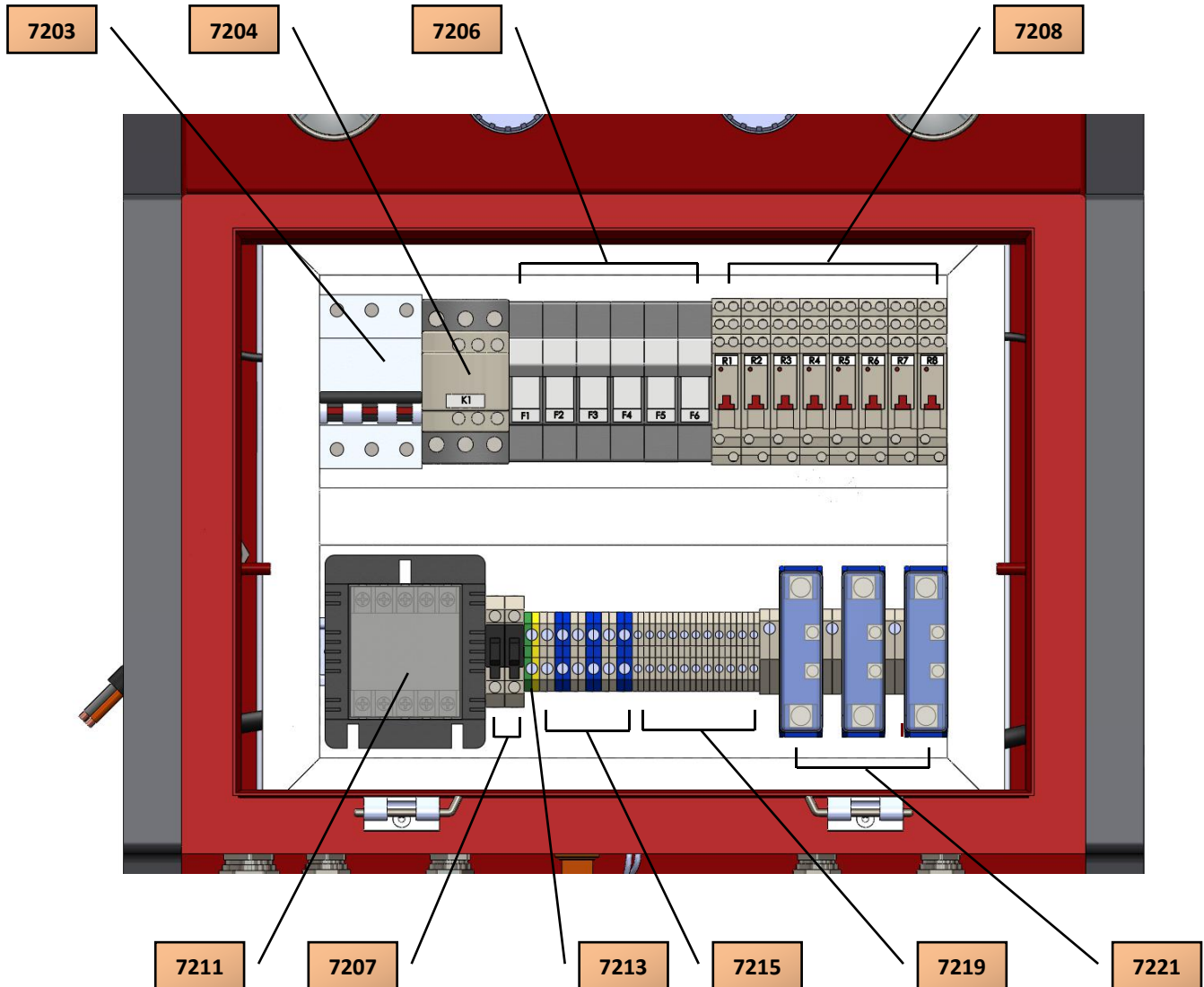
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21. FAULT DETECTION IN THE APPLICATION:

The simplest way to objectively detect if there are faults in the application is to observe the spraying, which is affected by the following parameters:

- Temperature: A material that is too hot will produce separation in the fan. A material that is too cold will produce a ripple effect.
- Pressure: Too high a pressure will result in excessive or disaggregated spraying. A pressure that is too low will produce a ripple effect.
- Contamination of the products in the mixing chamber.
- A foreign object in the mixing chamber will cause bad fanning.

22. ELECTRICAL CONTROLS PANEL.



7203....General magnetothermal 3x32A
 7204..... General contactor K1
 7206.....Fuses
 Polyol..... (F1-F2)
 Isocyanate..... (F3-F4)
 Hose..... (F5-F6)
 7208..... Relays
 ISO-POLY Maneuver..... R1
 POLY Alarm..... R2
 ISO Alarm..... R3
 Hose maneuver.....R4

Hose Alarm..... R5
 Cylinder..... R6-R7-R8
 7211..... Control transformer
 7207.....Maneuvering fuses (F7-F8)
 7213..... Earth terminal
 7215..... Heater connection terminals
 7219.Maneuvering connection terminals
 7221..... Solid state relays
 Polyol
 Isocyanate
 Hose

23. HOSE TRANSFORMER.



7042

7222

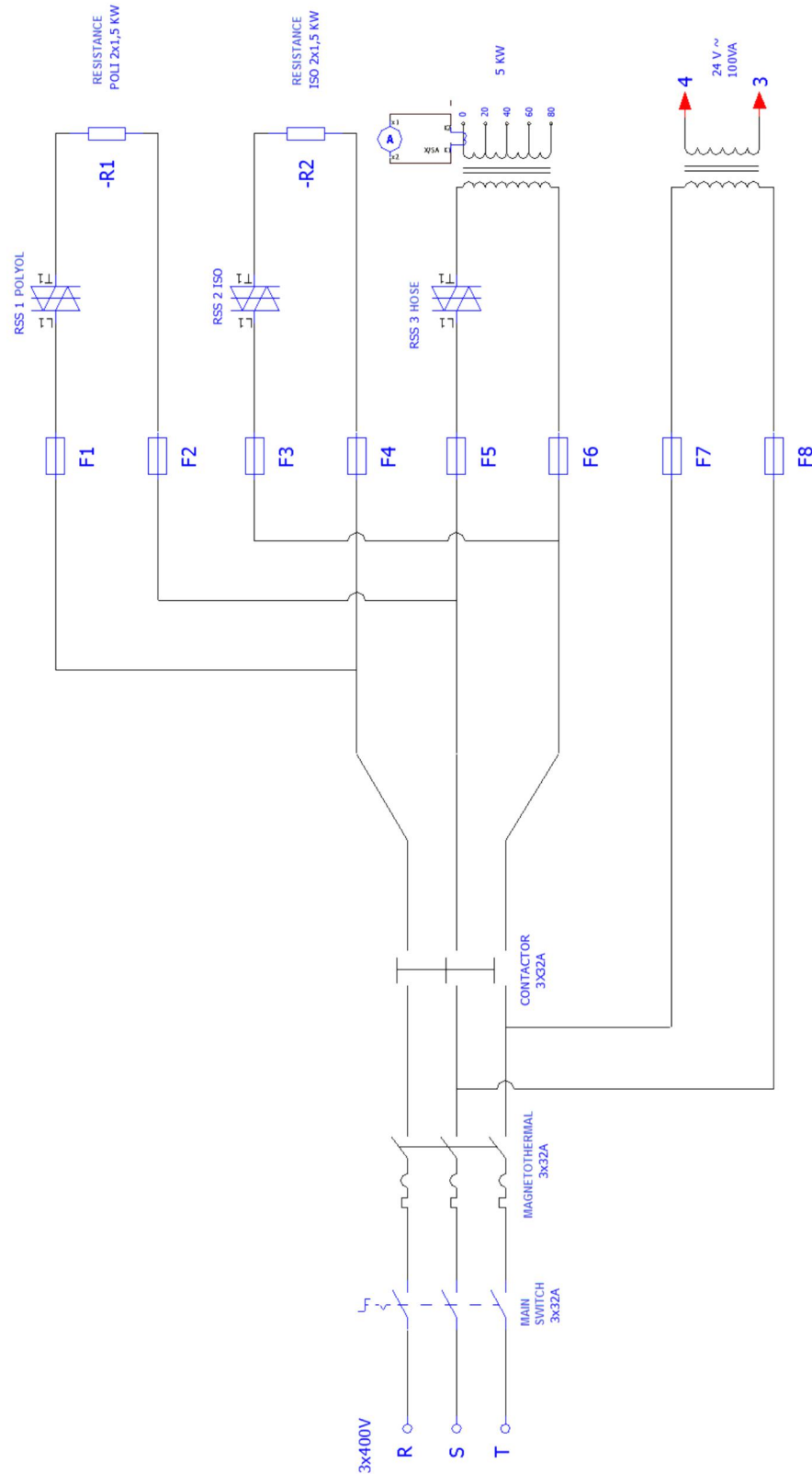
5000 VA transformer connection example

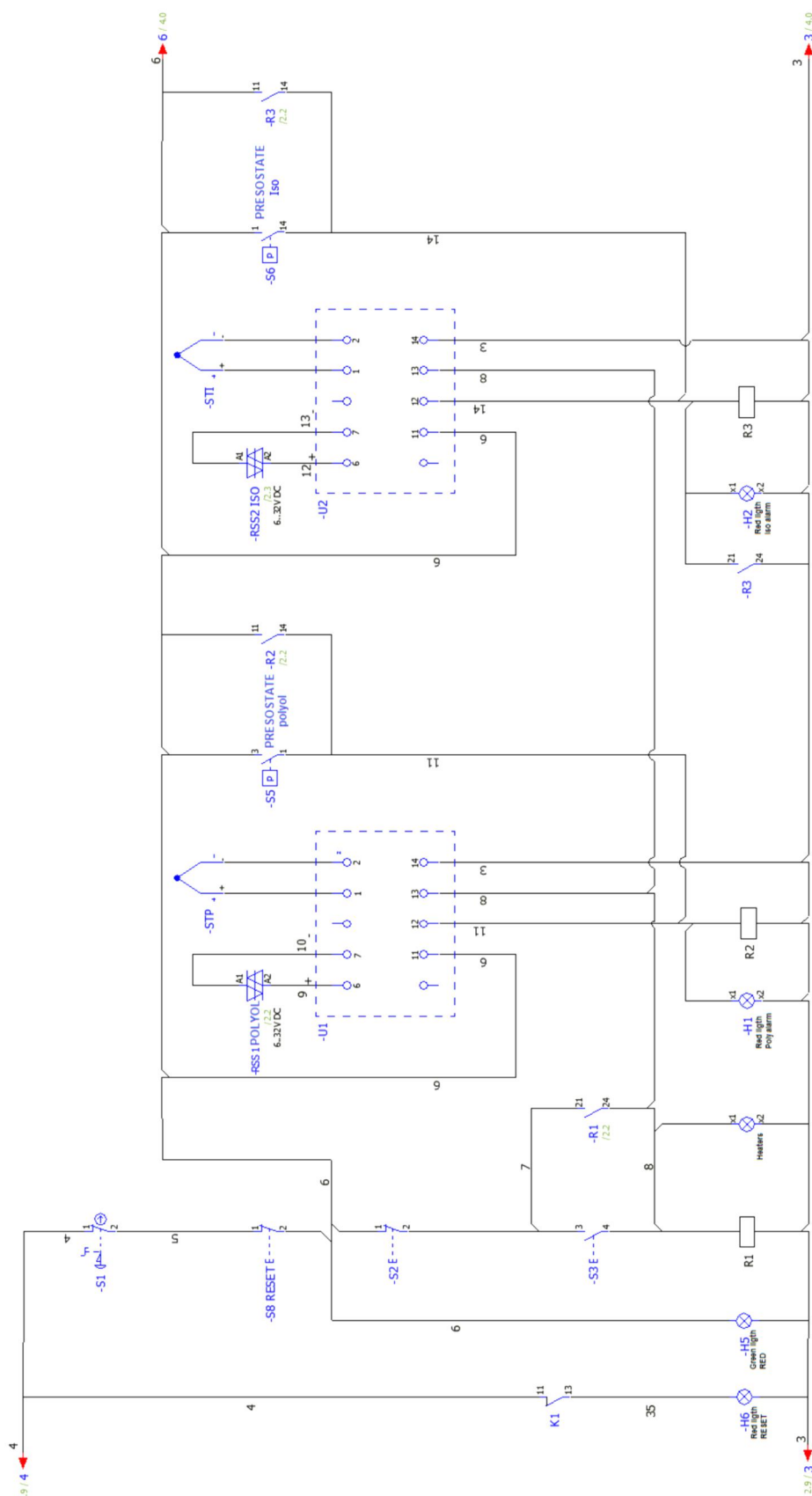
Electrical connections for different lengths of heated hoses

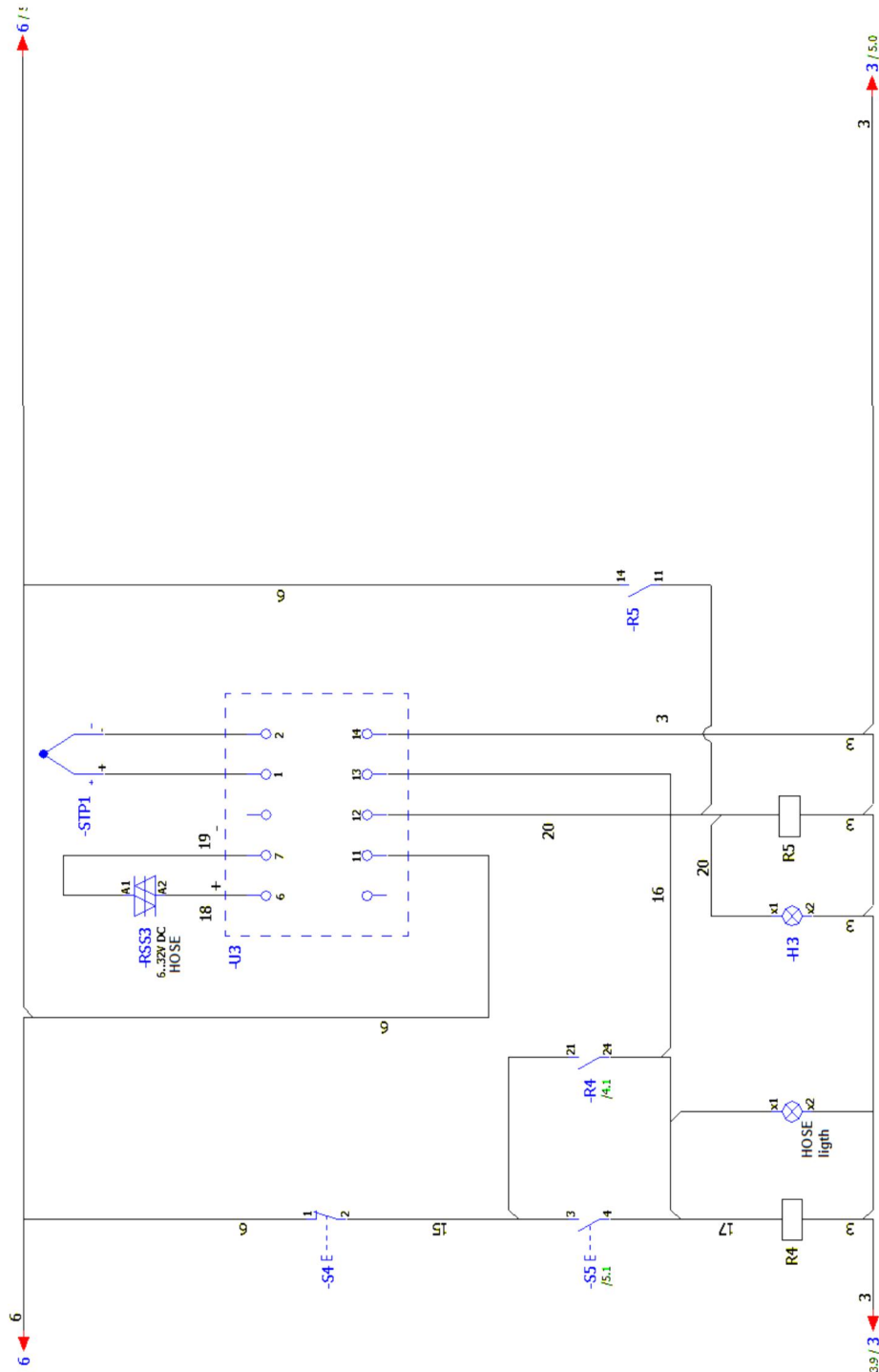
7222..... Ammeter transformer.

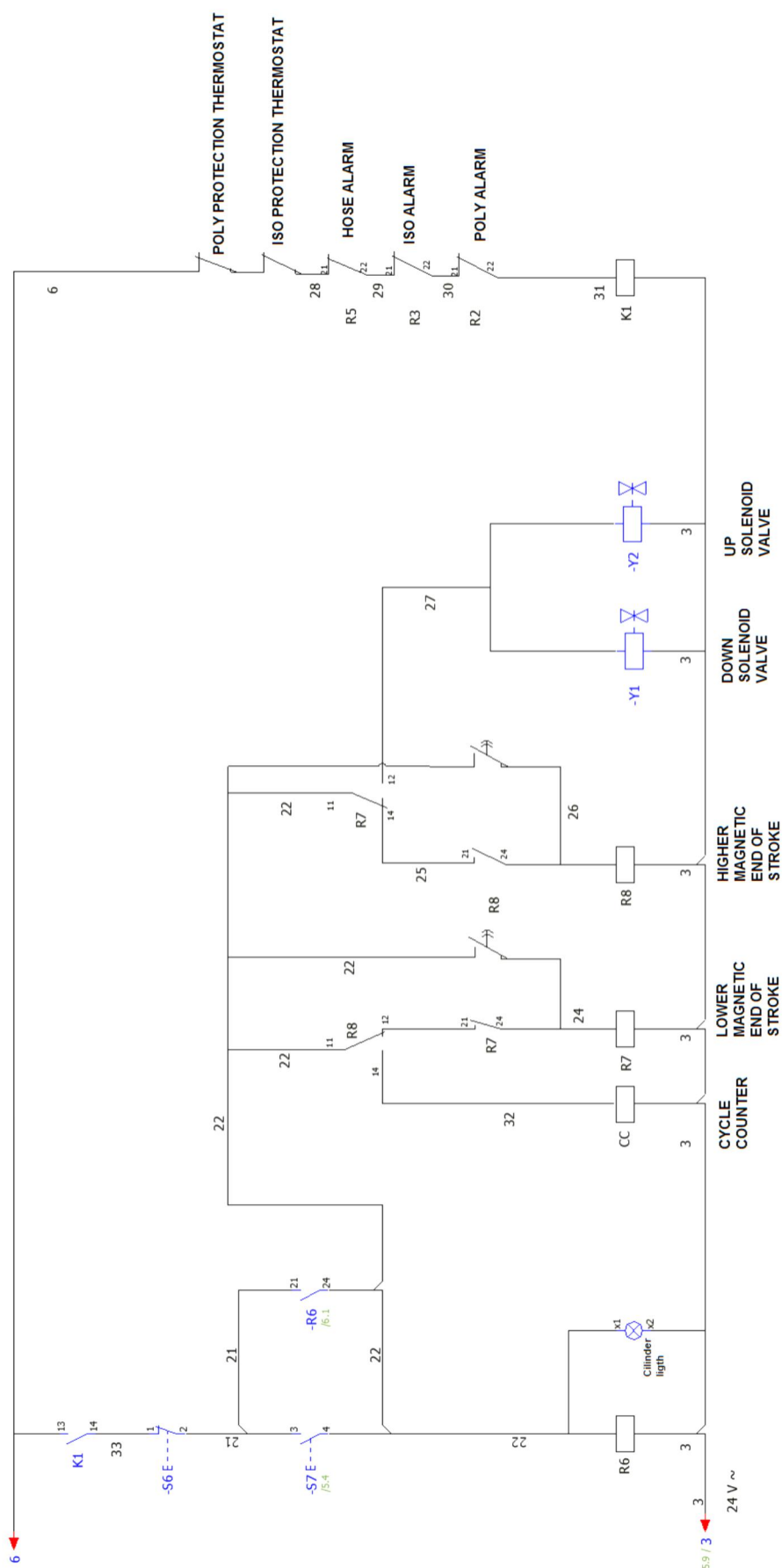
7042..... Hose transformer.

24. ELECTRICAL DIAGRAMS.











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25. COMPONENTS LIST:

1018 Heater housing.....	p-11	3019 ISO heater.....	p-20
1019 Transformer housing.....	p-11	3020 POLY heater.....	p-20
1020 Transformer cover.....	p-9	3021 Heater cover.....	P-20
1021 Electrical cabinet.....	p-11	3027 Vertical bracket.....	p-19
1022 Control cover.....	p-11	3028 Inlet non-return valve.....	p-16,17
1023 Pressure gauge support plate.....	p-11	3029 Outlet non-return valve.....	p-16,17
1025 Rear cylinder cover.....	p-10	3030 Lubrication pump unit.....	p-16
1028 Pump structure support.....	p-10	3031 Stop 1/8".....	p-17
1030 Air distributor for transfer pumps.....	p-10	3034 Spring Ø5.....	p-17
1032 Hose outlet block.....	p-21	3035 Sphere Ø6.....	p-17
1035 Hose outlet unit.....	p-11	3036 Upper cover.....	p-16
1037 Wheels.....	p-9	3037 Retaining nut.....	p-16
2020 Swift connector air gun.....	p-24	3038 Piston rod-piston joint.....	p-16
2100 Liquid filters unit.....	p-10	3039 Piston bracket.....	p-16
2103 O-ring Øin. 30x2.....	p-18	3040 Piston seal.....	p-16
2104 Filter body.....	p-18	3042 Stop guide.....	p-16
2105 Filter holder.	p-18	3043 Lower Piston rod.....	p-16
2106 Filter.....	p-18	3044 Piston rod joint.....	p-16
2107 Safety ring.....	p-18	3045 Upper Piston rod.....	p-16
2108 Watertight washer 3/4".....	p-18	3046-A Cylinder body.....	p-16
2109 M-M 3/4"-1" 1/16 Joint.....	p-18	3047-A Pump base.....	p-16
2111 Plug 3/8".....	p-18	3054 Ø16x485 400V/1800W resistance.....	p-20
2112 Watertight washer 3/8".....	p-13,14,17	3056 Thermocouple probe.....	p-20
2113 M3/4"-F3/4" joint.....	p-18	3057 Probe connector.....	p-20
2114 Washer.....	p-16	3061 O-ring.....	p-16
2204 SPARE KIT lubrication pump.....	p-16	3064 Lubrication elbow.....	p-17
2206 SPARE KIT ISO pump Ø32.....	p-14	3065 Fitting 1/4".....	p-17
2207 SPARE KIT POLY pump Ø32.....	p-15	3066 Stop 1/8".....	p-17
2209 SPARE KIT Piston Ø140.....	p-13	3071 Elbow with racor 1/8" NPT.....	p-14
2701 ISO line.....	p-22	3072 Piston guide.....	p-16
2702 POLY line.....	p-22	3100-C Armaflex thermal coating.....	p-24
2703 ISO hose.....	p-24	3500 Bicolor anti-abrasion covering.....	p-24
2704 POLY hose.....	p-24	4110-1 ISO heater unit.....	p-10
2707 Hose wire.....	p-22,24	4110-2 POLY heater unit.....	p-10
2708 Hose air conduit (tube Ø6).....	p-22,24	4709 M12 self-locking nut.....	p-16
2709 ISO gun line.....	p-24	4762 Screw M6 x 60.....	p-20
2710 POLY gun line.....	p-24	4763 Inner Allen screw M6.....	p-24
2750 Anterior connecting block.....	p-22	5243 1/4"NPT plug.....	p-13,20,21
2751 Insulator separator.....	p-23	5532 Screw M12x70.....	p-13
2752 End connecting block.....	p-24	5534 Pump release.....	p-13
2758 Thermostat.....	p-20	5535 Screw M12x60.....	p-13
2778 Pump release.....	p-16	5541 Bottom base plate.....	p-13
2887 ISO Pump-Heater Hose.....	p-10	5546 Piston nut M20.....	p-13
2888 POLY Pump-Heater Hose.....	p-10	5553 Screw M14x200.....	p-13
2889 ISO Heater Hose to Output Block.....	p-10	5554 Rod guide ring.....	p-13
2890 POLY Heater Hose to Output Block.....	p-10	5555 Wiper seal.....	p-13
3004 ISO hose fitting.....	p-23	5561 Cylinder head.....	p-13
3005 POLI hose fitting.....	p-23	5562 Bottom cylinder head.....	p-13
3007 Electrical connectors.....	p-22	5564 Cylinder body.....	p-13
3008 Mufflers.....	p-12	5573 O-ring Ø132int x 5.3 (x2).....	p-13



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5575 Piston rod.....	p-13	7052-3 Temperature controller Hose.....	p-9
5576 Piston seal.....	p-13	7053-1 Hidraulic cylinder start-up pushbutton.....	p-9
5577 Piston rings (x2).....	p-13	7053-2 Hose start-up pushbutton.....	p-9
5590 Plate supports (i/d) (x2).....	p-13	7053-3 Heater start-up pushbutton.....	p-9
5594 Rod seal 40x32x6.3.....	p-13	7054 Ammeter.....	p-9
5600 Pumping group.....	p-10	7056 Emergency stop.....	p-9
5801 POLI packer bracket.....	p-15	7059 Control cabinet lock.....	p-9
5802 Upper base.....	p-14,15	7063 90° M-F 3/4" elbow.....	p-14,15
5803 Nylon guide.....	p-14,15	7067 1/2" air pr. regulator with filter.....	p10,12
5804 Seal stop ring.....	p-14,15	7070 Quick Air Exhaust Valves.....	p-12
5805 Cylinder body.....	p-14,15	7080 Main switch.....	p-9
5806 Piston rod.....	p-14,15	7081 Solenoid valve N.C.....	p-10,12
5809 Piston head.....	p-14,15	7082 Solenoid valve N.O.....	p-10,12
5810 Lower base.....	p-14,15	7086 M3/8" swift coupling Ø12.....	p-21
5811 Sphere stop.....	p-14,15	7112 End of stroke bracket.....	p-19
5812 Sphere Ø17.....	p-14,15	7115 Limit switch.....	p-19
5813 O-ring Ø35 int. x 2.....	p-14,15	7120 Male air connector.....	p-23
5814 Safety ring Ø34x1.75.....	p-14,15	7121 Female air connector.....	p-23
5815 Sphere Ø15.....	p-14,15	7125 Air filter bowl.....	p-10,12
5817 Nylon cylinder joint stop.....	p-14,15	7126 Air pressure regulator 3/8".....	p-9
5818 O-ring Ø34 int. x 2.....	p-14,15	7133 Connector 1/4 hose - 1/2.....	p 24
5820 Wiper seal.....	p-14,15	7134 Connector 1/4 hose - 9/16.....	p 24
5821 ISO packer bracket.....	p-14	7141 ISO pump unit (Ø32).....	p-14
5822 Rod seal.....	p-14	7142 POLY pump unit.....	p-15
5823 Double collar piston.....	p-14,15	7203 General magnetothermal 3x32A.....	p-34
5829 Piston guide.....	p-14,15	7204 General contactor K1.....	p-34
5830 Seal and housing wiper seal.....	p-14,15	7206 Fuses.....	p-34
5831 Guide and buffer seal housing.....	p-14,15	7207 Maneuvring fuses.....	p-34
7001 M-M 3/8"NPT-3/8"Gas joint.....	p-20,21	7208 Relays.....	p-34
7003 Female air quick connector 3/8".....	p-10,21	7211 Control transformer.....	p-34
7004 M-M 1/4"NPT-1/2"SAE joint.....	p-22,24	7213 Earth terminal.....	p-34
7005 M-M 1/4"NPT-M9/16"SAE joint.....	p-22,24	7215 Heater connection terminals.....	p-34
7006 Connector 5/16 hose - 1/2.....	p 23 24	7219 Maneuvring connection terminals.....	p-34
7007 Connector 5/16 hose - 9/16.....	p 23 24	7221 Solid state relays.....	p-34
7008 M-M 1/4"NPT-G3/8" joint.....	p-22	7222 Ammeter transformer.....	p-35
7009 Probe connector unit.....	p-22	7223 Hose temperature probe.....	p-22
7010 Swift air connector male.....	p-22	7602 O-ring Ø18int x 3.....	p-13
7011 F-M 45° G3/8"-G3/8" joint.....	p-21	7710 Varisel buffer seal.....	p-14,15
7012 Cable gland.....	p-21	7711 Varisel buffer seal.....	p-14,15
7030 M-M 3/8"gas joint.....	p-14,15	8110 Machine connection stretch.....	p-11,22
7033 Stopcock 1/2".....	p-12	8120 Gun connection stretch.....	p-24
7034 1/2 "hose adapter.....	p-11	8130 Hose fitting.....	p-23
7038 Lubrication tank.....	p-10	9110 Black heat shrink tubing.....	p 11
7042 Hose transformer 5000VA.....	p-35	9117 Red heat shrink tubing (ISO).....	p 22
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7045 High pressure gauge.....	p-9,21	9119 Red heat shrink tubing (ISO).....	p 24
7046 Pressure switch.....	p-21	9120 Blue heat shrink tubing (POLY).....	p 24
7051 Cycle counter.....	p-9		
7052-1 Temperature controller POLY.....	p-9		

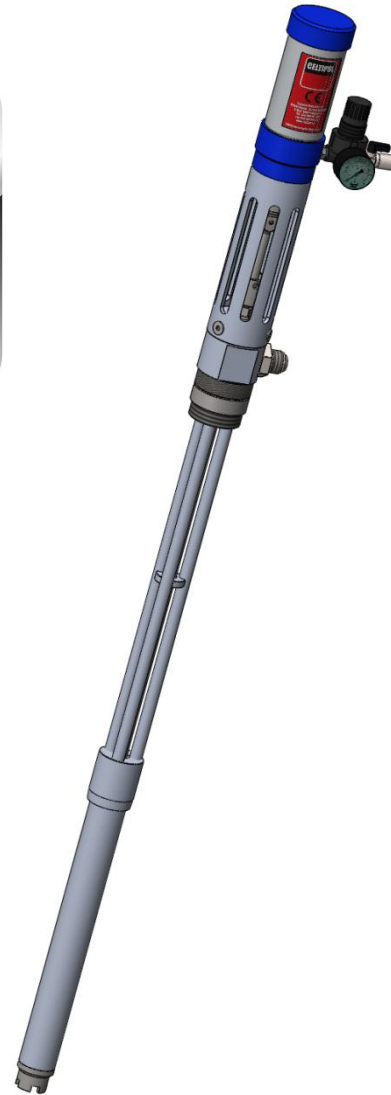
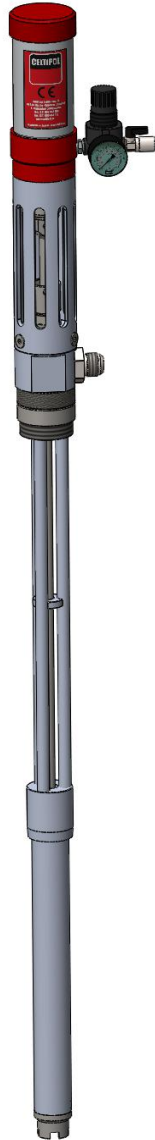


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26. TRANSFER PUMPS C-M 16



Technical characteristics of the equipment

- Air pressure:.....101lb/in²
- Air consumption:.....53gal/min.
- Maximum product outlet pressure:..... 290lb/in²
- Pressure ratio:.....2,8 : 1
- Outflow:..... 8gal/min.

Safety in the use of the equipment

- It is advisable for personnel with a history of respiratory complaints to avoid exposure to all isocyanates.
- Chemical products must be handled safely in accordance with manufacturer's recommendations. The manufacturer should provide information on the toxicity of the products used as well as actions to take in the event of accident (wounds, irritation, etc.).
- Products such as polyisocyanates, organic solvents and diamines should be stored in a place exclusively for and adapted to such a purpose, with restricted access. Maximum temperatures must be strictly adhered to, both in the application and in storage of chemical products, at all times following the manufacturer's recommendations.
- Also, chemical products are to be stored at all times in suitable containers, following the manufacturer's recommendations.
- Containers must not be opened until immediately before being used in order to avoid contamination by damp. Any leftover product after being applied should be put back into the original container and be stored in a dry, ventilated place.
- During cleaning tasks of spilt components, it will be essential to use eye protection, gloves and wearing breathing apparatus. Spilt isocyanate can be collected with any absorbent inert product, such as sawdust. In any case, it is important to avoid skin contact. The absorbent product is to be immediately collected and dumped into an open container through the upper part.
- Throughout the entire operation explained above, the area must be correctly ventilated.



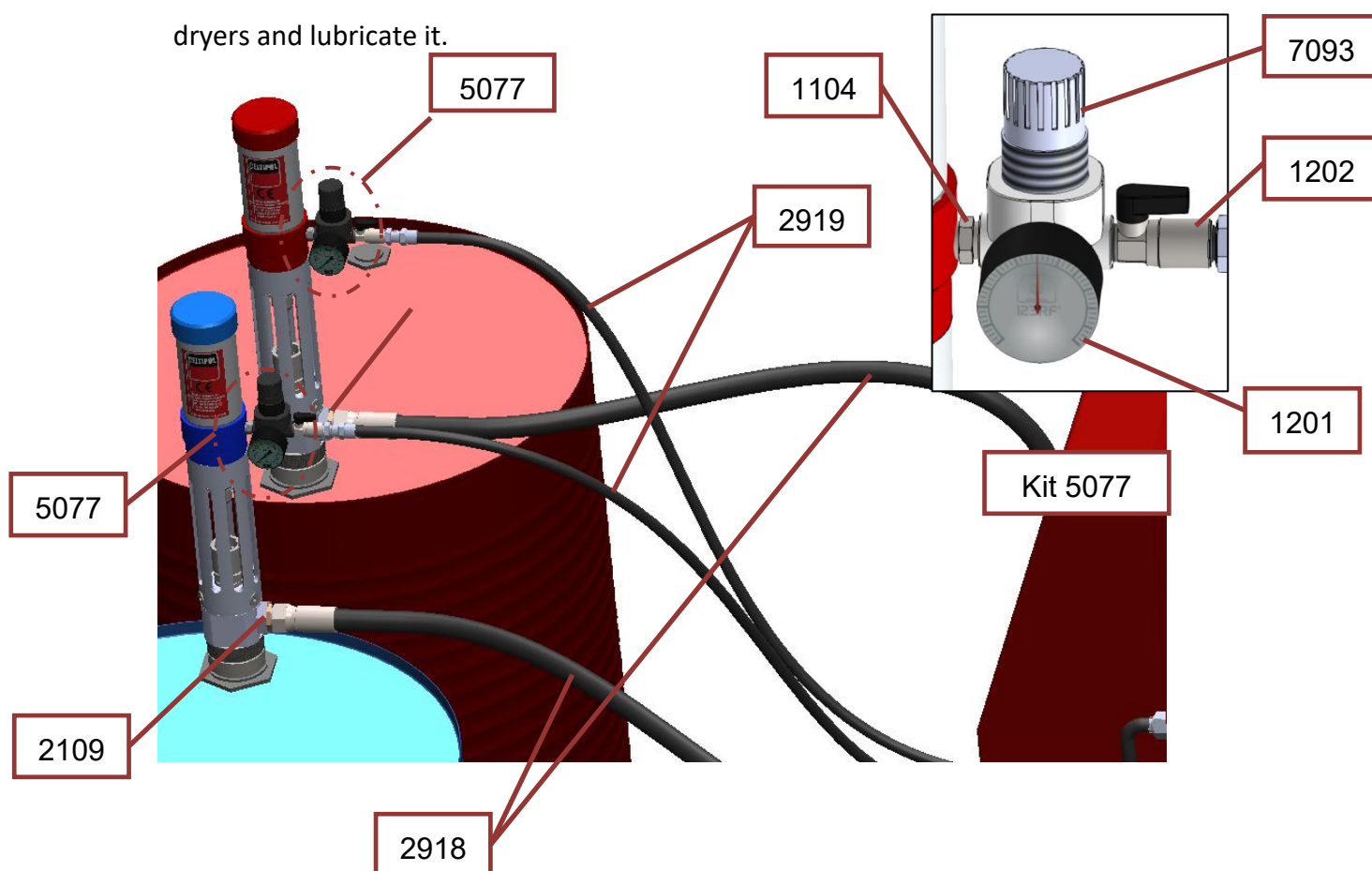
Safety personnel equipment:

Celtipol recommends the following personnel safety equipment:

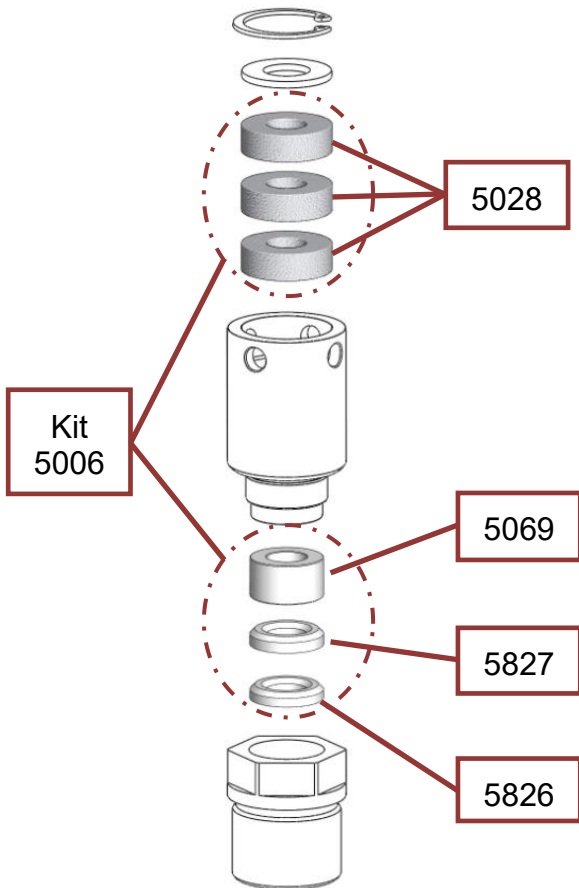
- » Protective mask for airways.
- » Goggles to protect the eyes.
- » Headset to protect against noise.
- » Gloves to protect hands.
- » Protective clothing for the body.

Start up

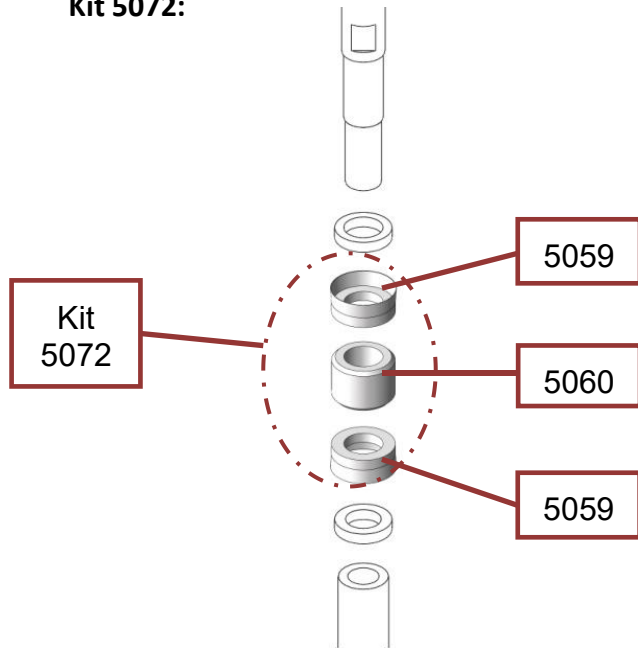
- Insert the pump through the mouth of the drum
- Screw the clamp to the drum (5074) and tighten the seal (It is recommended to apply grease to both threads and gasket).
- Open the breather cap of the drum.
- Connect the product outlet hose (2918) at both ends.
- Connect the air inlet hose (2919) to the pump, through the pressure regulator kit 5077.
- Connect the air hose (2919) to the air outlet *. The pump will start working when the stopcock (1202) is opened.
- Turn the regulator (7093) until the pressure gauge (1201) reaches a maximum of 101 psi.
- * To increase the durability of the equipment it is recommended to treat the air using dryers and lubricate it.



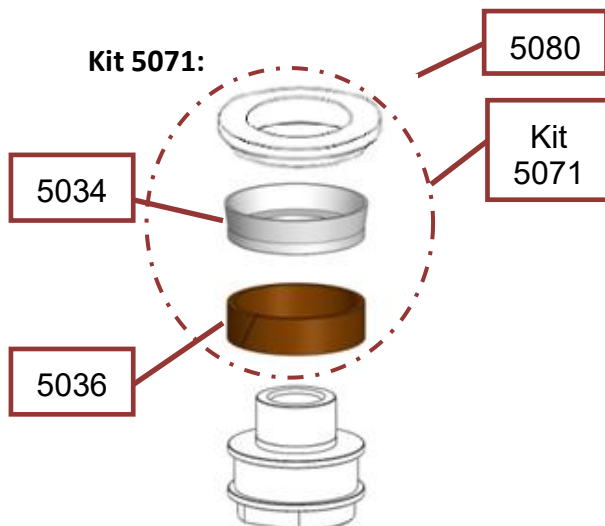
Kit 5006:



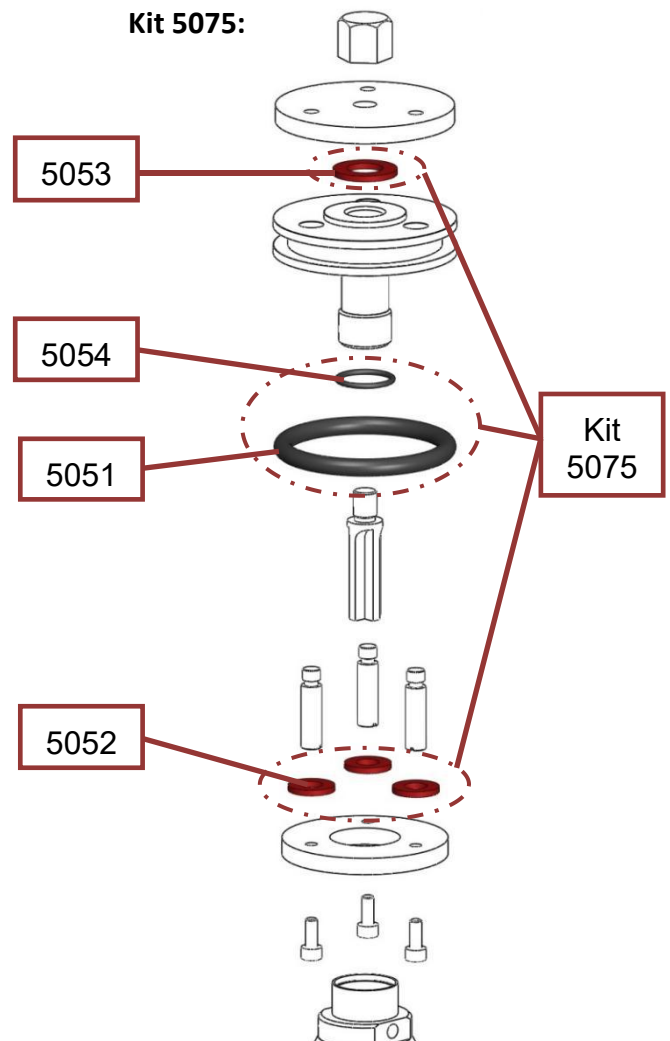
Kit 5072:

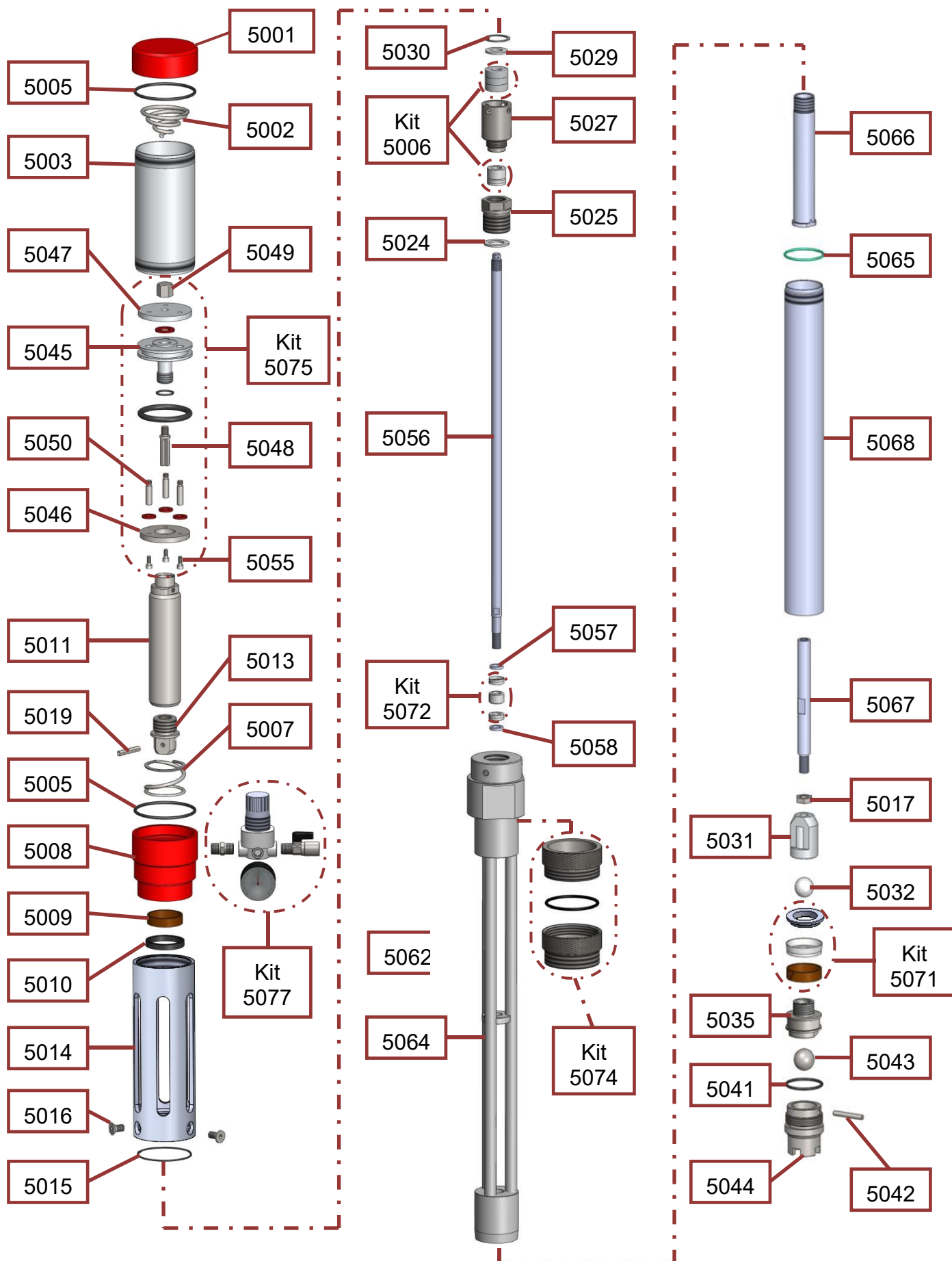


Kit 5071:



Kit 5075:







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Transfer pump part list C-M 16

REF	DESCRIPTION	QT
2109	Joint M 1/2" – M 1 1/16" SAE	2
2918	Product outlet hose	1
2919	Air inlet hose	1
5001	Cylinder head cover	1
5002	Upper spring	1
5003	Liner	1
5005	O-ring Øint 65x3	2
5007	Lower spring	1
5008	Cylinder head base	1
5009	Rod guide	1
5010	Seal	1
5011	Piston rod	1
5013	Rod cane joint	1
5014	Main pump union	1
5015	O-ring Øint 60x1,75	1
5016	Screw M8	3
5017	Nut M10	1
5019	Pin	1
5024	Nylon closure ring	1
5025	Packing housing	1
5027	Felt housing	1
5029	Felt stop ring	1
5030	Pin	1
5031	Sphere holder	1
5032	Sphere Ø20	1
5035	Lower piston	1
5041	O-ring Øint 36x2,5	1
5042	Sphere holder	1
5043	Sphere Ø22	1
5044	Lower sphere holder	1
5045	Upper piston	1
5046	Lower piston plate	1
5047	Upper piston plate	1
5048	Stem	1
5049	Piston nut	1
5050	Piston stay bolt	3
5055	Screw M4	3
5056	Upper stem	1
5057	Top stop ring	1
5058	Lower stop ring	1
5064	Fluid separator	1
5065	O-ring Øint 40x2	1
5066	Internal cane	1
5067	Lower stem	1
5068	Suction rod	1
5080	Piston ring	1

Kit.5006 Gaskets and felts		
REF	DESCRIPTION	QT
5028	Felts	3
5826	Packing base	1
5827	Central packing	1
5069	Packing guide	1

Kit.5071 Lower piston		
REF	DESCRIPTION	QT
5034	Piston board	1
5036	Piston guide	1
5080	Piston ring	1

Kit.5072 Internal gaskets		
REF	DESCRIPTION	QT
5059	Gasket ring kit	2
5060	Guide kit	1

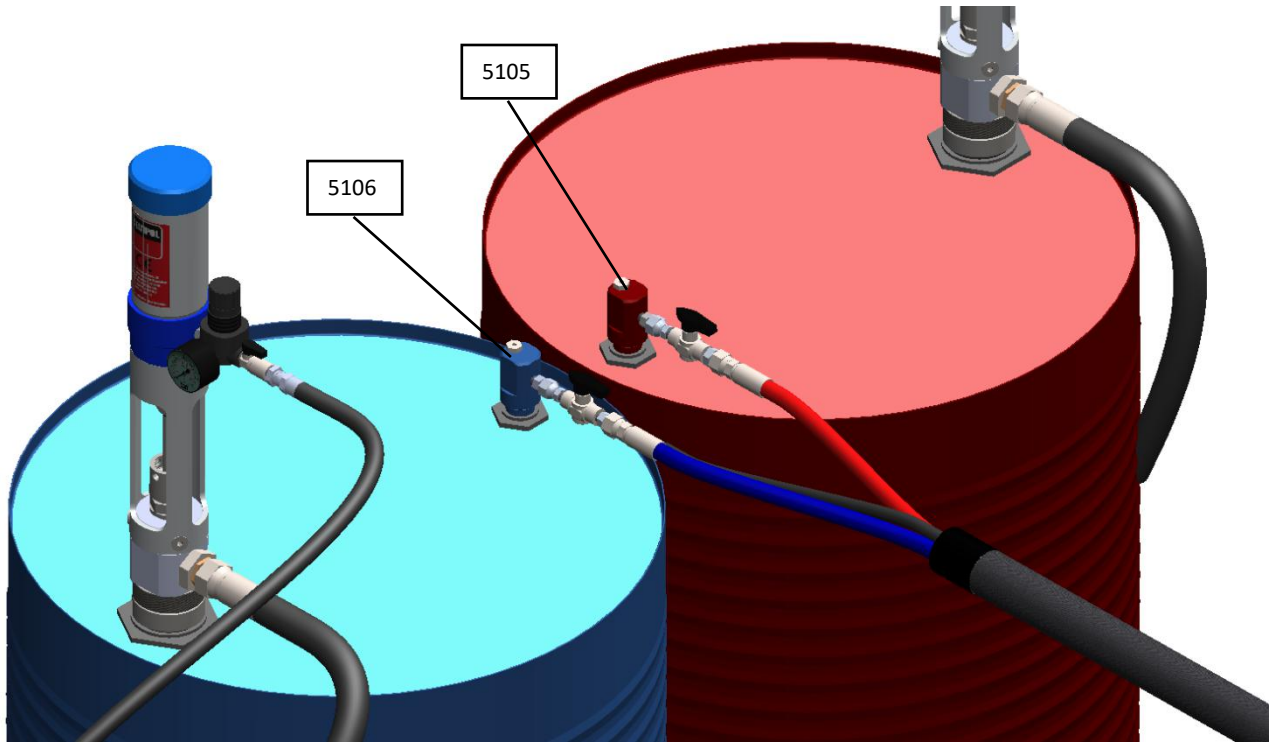
Kit.5074 Drum holder		
REF	DESCRIPTION	QT
5061	Waterpr. pump support	1
5062	O-ring Øin. 53x3	1
5063	Drum connection	1

Kit.5075 Upper piston		
REF	DESCRIPTION	QT
5051	Piston O-ring Øin 50x6	1
5052	Bottom plate gasket	3
5053	Upper plate gasket	1
5054	O-ring Øin. 16x2	1

Kit.5076 O-rings		
REF	DESCRIPTION	QT
5005	O-ring Øint 65x3	2
5015	O-ring Øint 60x1,75	1
5041	O-ring Øint 36x2,5	1
5065	O-ring Øint 40x2	1

Kit.5077 Pressure regulator		
REF	DESCRIPTION	QT
1104	Connector 1/4"NPT Male	1
7093	Pressure regulator 10bar	1
1201	Manometer Ø42	1
1202	Stopcock 1/4" 20bar	1

27. RECIRCULATION KITS.



REF	DESCRIPTION
5105	Recirculation ISO KIT
5106	Recirculation POLI KIT

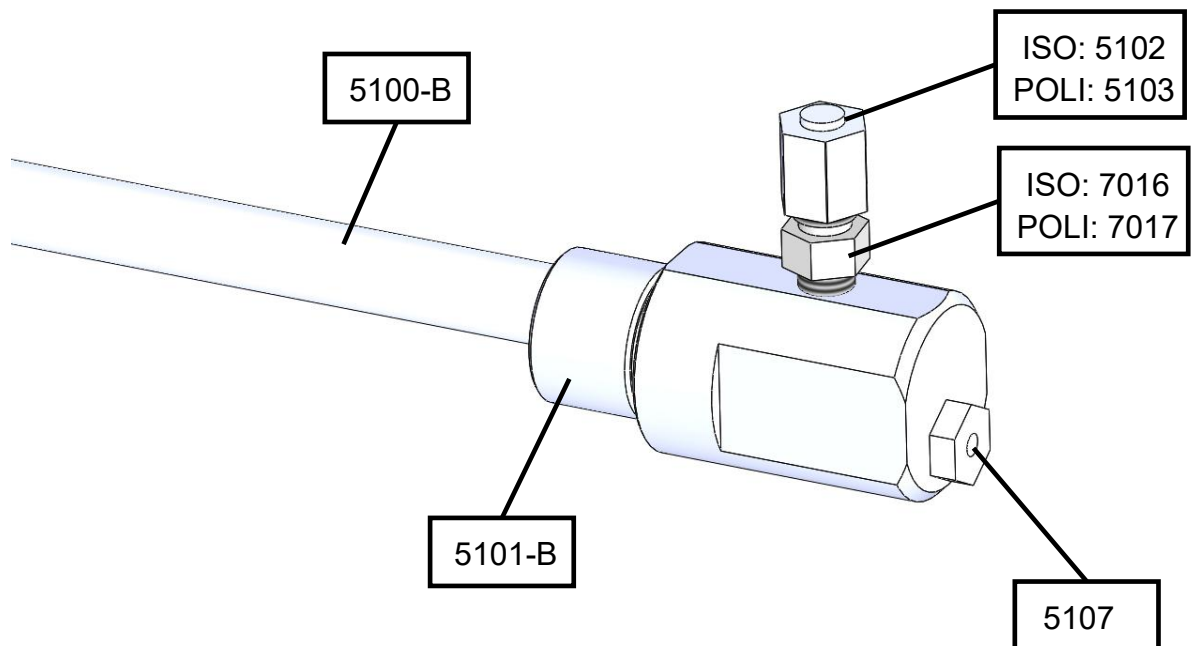
Eventually, the products from the machine must be recirculated. With the recirculation of the products it is possible to raise their temperature before their application and the air and moisture is purged, this being specially important when the weather is cold.

When heating the products, their viscosity decreases and the pressure of each product tends to vary. After a few minutes of recirculation, the temperatures of the products (in hose and heaters) stabilize at the set value, and the pressures of the Isocyanate and the Polyol are equalized in most occasions.

Periodically, the recirculation of the products must also be carried out as a maintenance task, to avoid the crystallization of the Isocyanate in the hoses and ducts. This is especially important when the machine is left idle for long periods. To avoid problems, it is advisable to recirculate the machine every 8 days during periods of 10/20 minutes.

To recirculate the machine, proceed as follows:

- Introduce each transfer pump in its corresponding drum.
- Insert the recirculation rods in the breather caps of the Isocyanate and Polyol drums. Care must be taken not to insert the Isocyanate rod into the Polyol drum, or the Polyol rod into the Isocyanate drum.
Red = Isocyanate; Blue= Polyol
- Unscrew the Polyol and Isocyanate nuts from the spray gun, taking care not to open the ball valves if there is pressure.
- Screw each hose nut onto its respective recirculation rod. The connections are of different sizes to prevent the connection of the Isocyanate hose in the Polyol and vice versa.
- Start the machine.
- Open the valves.
- Recirculate the necessary time.



Spare parts			
REF	ISO	REF	POLI
5100-B	Suction tube	5100-B	Suction tube
5101-B	Recirculation body	5101-B	Recirculation body
5107	Aeration valve	5107	Aeration valve
7016	Union 1/8"NPT-7/16"SAE	7017	Union 1/8"NPT-1/2"SAE
5102	Plug female 7/16"SAE	5103	Plug female 1/2"SAE



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28. COMMERCIAL GUARANTEE.

Dear customer,

We thank you for your deference in purchasing this CELTIPOL product and hope you are satisfied with your purchase. In the event that this CELTIPOL product requires any service during the guarantee period, our technical service will assist you at the following address:

Faustino Santalices, Nº 35 - Bande - (Ourense) Spain
Tel: 988 443 105 - Fax: 988 444 410
E-mail: info@celtipol.com

YOUR GUARANTEE:

Through this consumer guarantee, CELTIPOL warrants the product against faults in material and workmanship for a period of 2 years from the original date of purchase.

If during this guarantee period the product has faults in materials or workmanship, CELTIPOL will repair or replace (at CELTIPOL's discretion) the product or its faulty parts, under the conditions specified below and without any charge for workmanship or parts. CELTIPOL reserves the right (at its sole discretion) to replace components of faulty products or to replace low-cost products with new or recycled products, in accordance with the laws of each country.

Conditions:

1. This guarantee is valid only when presented with the original invoice or sales receipt (indicating the date of sale and model purchased) along with the faulty product. CELTIPOL reserves the right not to offer the free guarantee service if these documents are not presented or if the information they contain is incomplete or illegible.
2. This guarantee does not cover or pay for damages resulting from changes or adjustments that may be made to the product, without the prior written consent of CELTIPOL in order to comply with safety or technical standards, national or local, in countries other than those for which the product has been designed and manufactured.
3. This guarantee shall not apply if the serial number of the product has been altered, deleted, has disappeared or is illegible.
4. This guarantee does not cover any of the following:
 - a. Regular maintenance and repair or replacement of parts resulting from normal wear and tear.



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b. Damage resulting from misuse, Including:

- **Failure to use the product for purposes other than those for which it is designed or failure to comply with CELTIPOL's instructions for use and maintenance.**
- **Installation or use of the product in a manner that does not comply with the technical or safety regulations of the country where used.**
- **Repairs carried out by a non-authorized technical service or by the consumer.**
- **Accidents, lightning, water, fire, inadequate ventilation or any cause beyond the control of CELTIPOL.**
- **Electronic components (inside the control panel) affected by bad connections or sudden voltage changes (electrical fluid deficiencies).**
- **Faults of the system to which this product is incorporated.**
- **This guarantee has no influence whatsoever on the legal rights of the consumer granted by the applicable national legislation, nor on the rights of the consumer vis-à-vis the distributor deriving from the purchase/sale contract established between the two.**



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29. CE DECLARATION.



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Ec declaration of conformity

Ec declaration of conformity

According to Appendix II, No.1 A of the Machinery Directive 2006/42/CE

The company:

CELTIPOL S.L.

C/ Faustino Santalices, 35

32840 Bande – Ourense-Galicia

SPAIN

Declares that the equipments types:

CN-140

With Serial-No.:

Are in conformance with the provisions of the above-mentioned directive.

Bande, 05.03.2021

Place, Date



José Torres Ambrosio

Manager

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EC declaration of conformity



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Ourense (España)
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Telf.: (34) 988 443 105
Fax: (34) 988 444 410**

www.celtipol.es

**Fabricado en España
Made in Spain**