

VALCO MELTON

MKF Gun

User Manual



Polígono Industrial Agustinos, calle G, nave D-34

Tel: +34.948.321.580 Fax: +34.948.326.584

31160 ORCOYEN (Navarra) ESPAÑA

e-mail: melton@melton.es

<http://www.valcomelton.com>

Declaration of conformity

The product: _____

Model no: _____

Serial no: _____

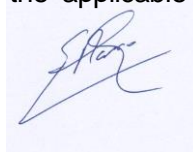
Year of manufacture: _____

Described in the enclosed documentation is in conformity with:

- Directive 2006/42/CE of 29 December 2009 replacing the Directive 98/37/EC of 22 June 1998 relating to the approximation of the laws of the Member States relating to machinery, combining in a single text Directives 89/392/EEC of 14 June 1989, 91/368/EEC of 20 June 1991, 93/44/EEC of June 14, 1993 and 93/68/EEC of 22 July 1993. Directive used law EN ISO 12100-1 and EN ISO 12100-2, relative to safety of the machines, law EN ISO 14121-1, relative Safety of the machines. Evaluate of risk, law UNE-EN 60204-1, relative to Safety of machines. Electric equipment of the machines, law UNE-EN 61310-1, UNE-EN 61310-2 y UNE –EN 61310-3, relative to Safety in machines. Indication, marking and actuation.
- Directive 2006/95/CE of 12 December 2006 replacing the Directive 73/23/EEC of 19 February 1973 relating to electric equipment.
- Directive 2004/108/CE of 20 July 2007 replacing the Directive 89/336/EEC of 3 May 1989 relating to electromagnetic compatibility.
- Directive 93/68/EEC of 22 July 1993, amending Directive 73/23/EEC, and Directive 89/336/EEC.

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

Orcoyen, on : 08 January 2016



Signed: _____

Gonzalo Marco, Managing Director.



VALCO MELTON

VALCO MELTON S.L.U. Pol. Ind. Agustinos C/G 34

31160 ORCOYEN, NAVARRA (SPAIN)

TEL: +34 948 321580 Fax: +34 948 326584

melton@melton.es www.valcomelton.com

IMPORTANT!



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

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

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

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

WARNING:

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



VALCO MELTON

CHAPTER 1 SAFETY INSTRUCTIONS

1.1. SYMBOLS AND TERMS:



Miscellaneous prohibitions



European Community markings



Danger: hot surface



Note of special interest



Miscellaneous precautions



Use of goggles required



Precaution: electric current



Use of safety gloves required



Precaution: flammable liquid



Precaution: risk of fluid leakage under high pressure



Precaution: risk of entrapment between mobile parts

Burns:



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

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

Qualified personnel:



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

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

Protective clothing:

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

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

Goggles and face shields:



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

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

Protective gloves:



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

1.2. PURPOSE:

This unit has been manufactured according to current safety standards.

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

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

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



1.3. FIRST AID:

In case of burns:



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

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

Seek qualified medical attention immediately.

In case of an accident with the solvent:



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

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

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

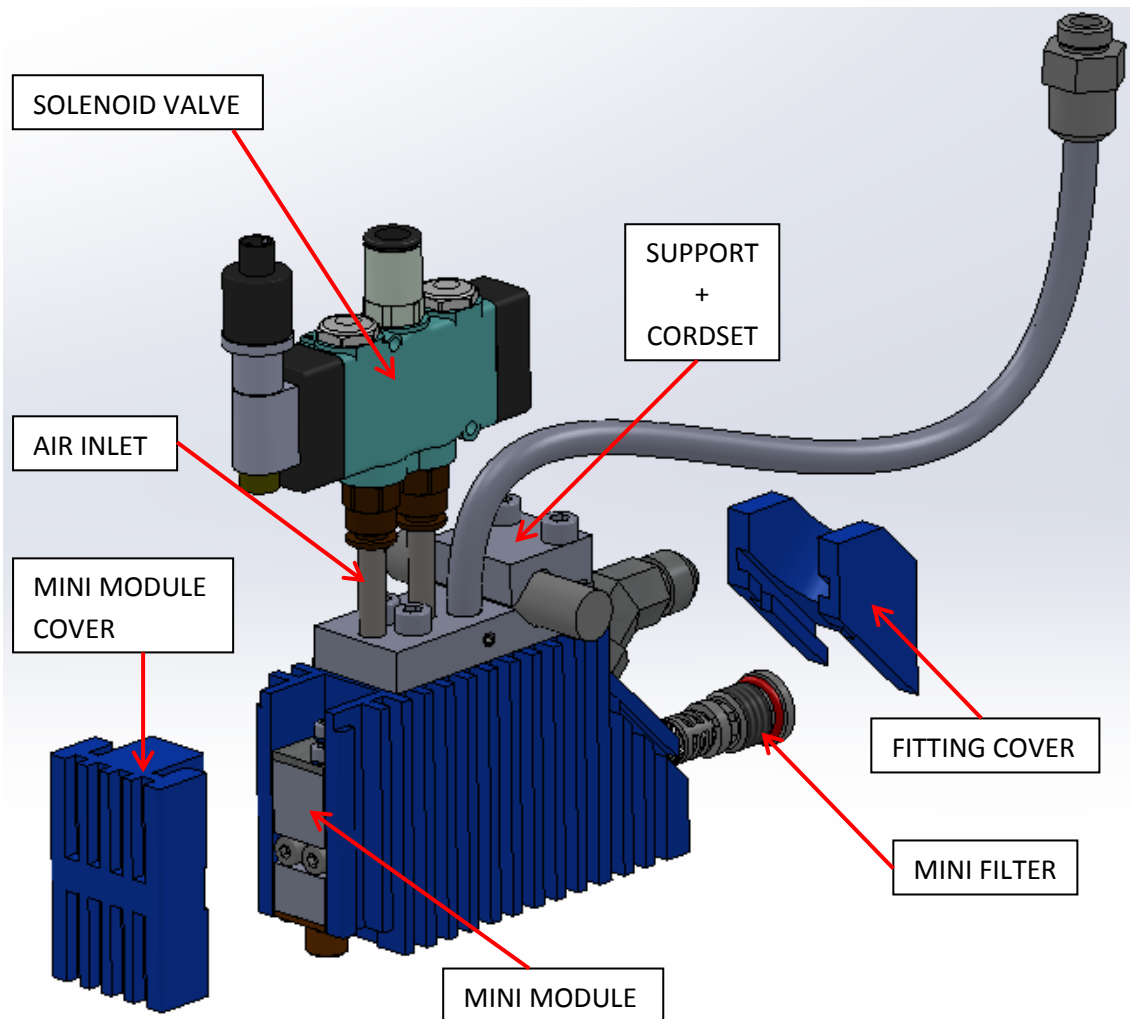
INGESTION: *Do not attempt to induce vomiting. Seek medical attention at once.*

CHAPTER 2 DESCRIPTION

2.1. INTRODUCTION:

The gun is the part that applies the hot-melt (or similar material) to the substrate. It consists of a heated body which receives the glue, and an injection module, with air-controlled opening. The form of the application depends on the output nozzles on the modules.

2.2. MAIN PARTS:



2.2.1. Gun body:

It distributes the adhesive from the hose to the module.

It's heated by a cartridge and the temperature is controlled by a probe.

2.2.2. Mini-filter:

It filters out impurities from the adhesive on the gun inlet.

The mesh size can change depending on the adhesive or the application.

2.2.3. Solenoid valve:

It is an automatic valve that opens and closes the application of adhesive.

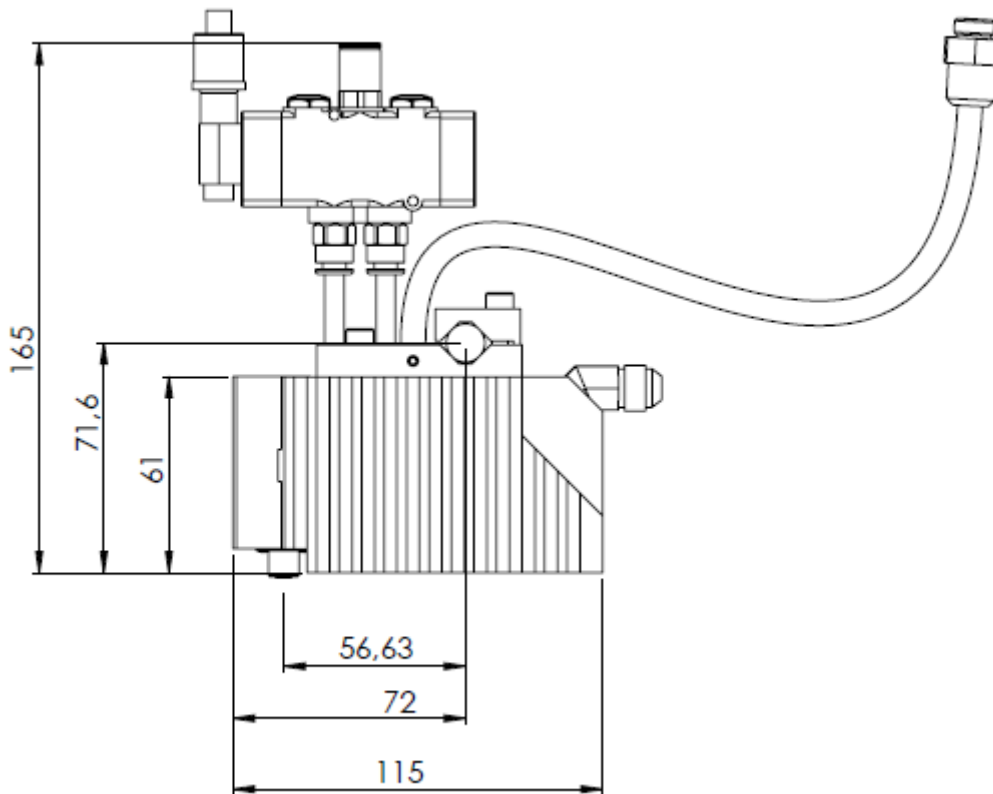
It's necessary a 24 VDC signal to activate the solenoid.

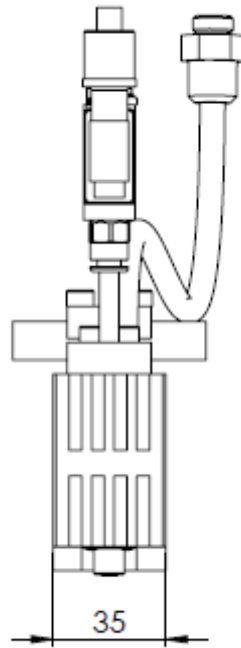
2.2.4. Support / cordset:

The cordset is the basis of the support.

It is composed by a probe, a cartridge heater and the ground connection.

2.3. TOTAL MEASURES OF THE GUN:





CHAPTER 3 INSTALLATION OF THE MACHINE

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 gun is supplied in a paperboard box with de documentation CD.



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

3.3 INSTALLATION REQUIREMENTS:

Install the follower equipment leaving enough space to be accessed during operations.

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

Try to avoid installing the equipment where there are draughts. If this is not possible, the guns will need protecting because if the temperature falls rapidly they may not work properly.

3.4. MECHANICAL INSTALLATION:

The mechanical installation includes the following:

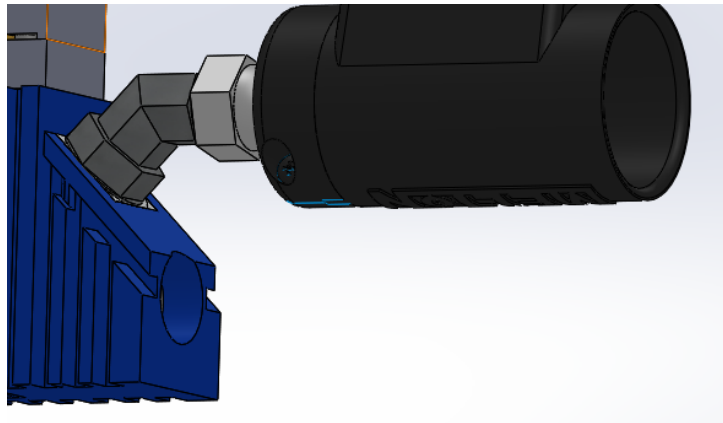
- Positioning the gun.
- Connecting the hoses.

Connecting the hoses:

Proceed as follows:



Make sure that the equipment is depressurised before connecting the hose. Set the motor control selector to zero and bleed with bleed valves. Heat the machine to melt any adhesive that may be present.



1. Screw the hose to the fitting.
2. Connect electrically the cordset to the hose connector (see chapter 3.5 electrical installation).
3. Pre-heat the gun
4. When the hose is at the relevant temperature, re-tighten the hose to the fitting.

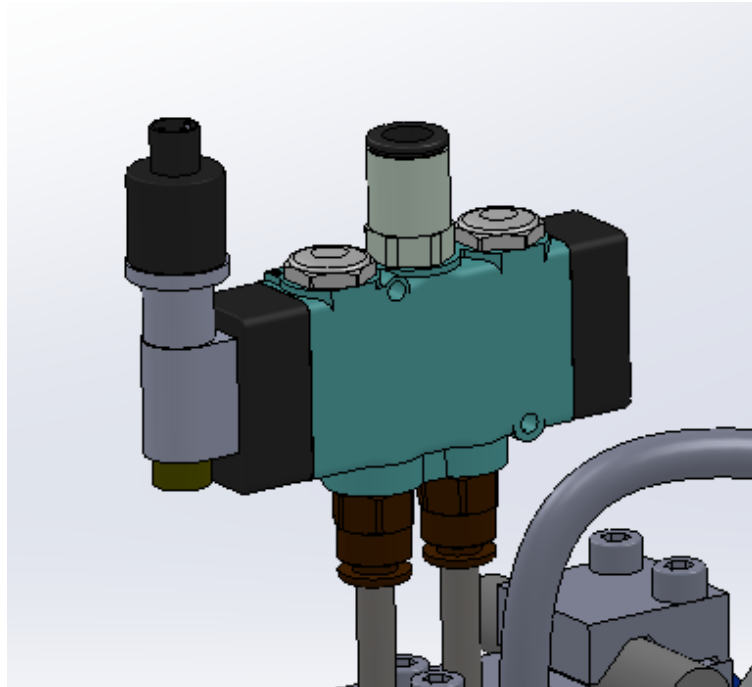


3.5. ELECTRIC INSTALLATION

1. Assemble the cordset to the hose connector.
2. Connect the solenoid valve to a 0-24 VDC signal.
It could be a pattern control signal or a main machine signal.

3.6. PNEUMATIC INSTALLATION

The solenoid has Ø8 pipe connection.
The recommended working pressure is about 6 Bar.





VALCO MELTON

CHAPTER 4 EQUIPMENT MAINTENANCE



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

4.1. INTRODUCTION:



This chapter describes the procedures to remove and change some components. These procedures should be followed during maintenance or repair operations.

First of all, make sure that you are duly protected and follow all safety measures:

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

4.2. MAINTENANCE RECOMMENDATIONS:

Frequency	
Daily	Clean the external surface of the gun
	Check the status of the nozzle. Make sure the nozzle has no impurities.
	Check the status of the gun support
	Check and clean the rod support
Shut downs over 2 days	Pre-heat the machine and clean the nozzle with a dipstick
Weekly	Check all the electric and pneumatic connections.
	Replace or repair those as needed
	Clean the nozzle orifice with a dipstick
Monthly	Check the status of the adhesive filter

4.3. MAINTENANCE PROCEDURES:

Cleaning the gun



Preheat the gun at 100°C for cleaning it.

When the gun reaches the temperature, remove the power supply.



Remove the covers, the mini-module, and the adhesive fitting.

Clean it with solvent. Clean the adhesive residue from the general body of the gun.

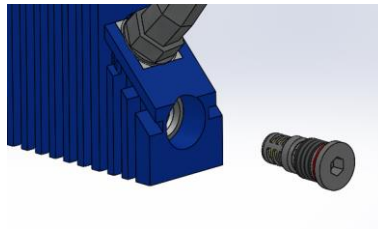


Assemble the removed parts and heat the gun to the operation temperature, then re-tighten the screws.

Whenever it is necessary to clean adhesive residue, it will be carried out with solvent recommended by the manufacturer of the adhesive

Changing the filter

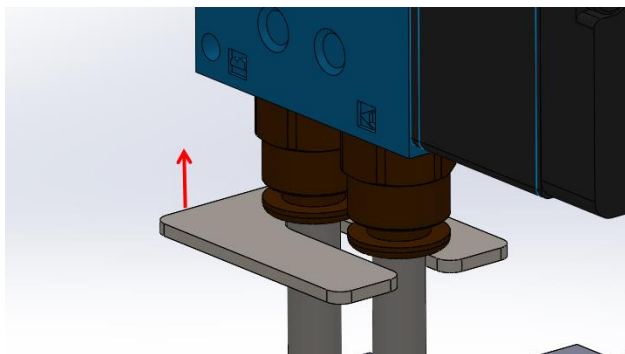
1. Unscrew the mini-filter cartridge and change it.



2. Assemble the new filter and apply a torque of 26 N·m.

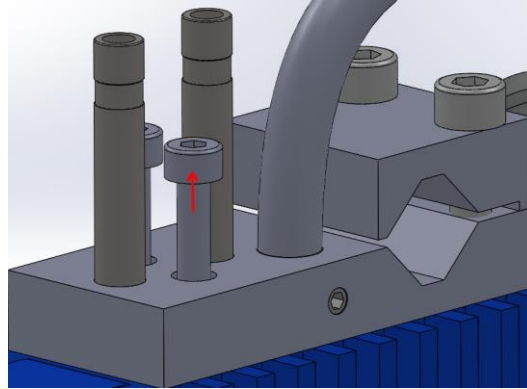
Removing the solenoid

The following images show how to use the extraction sheet.

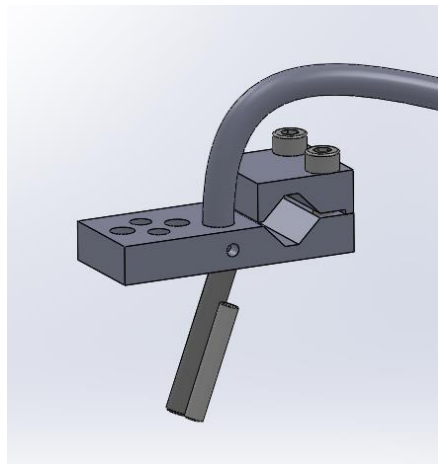


Changing the cordset

1. Remove the solenoid
2. Release the support screws



3. Extract the cordset

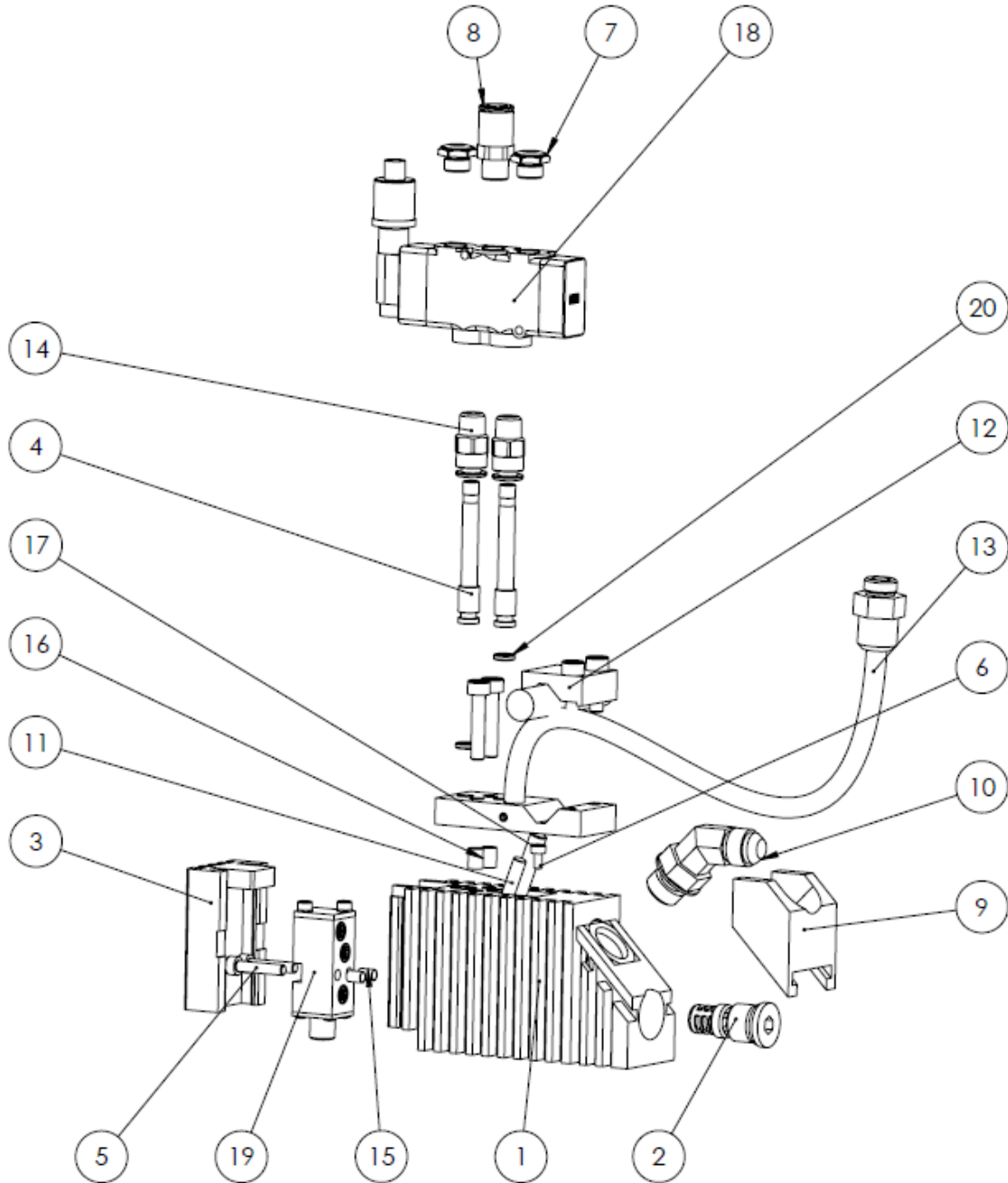




VALCO MELTON

CHAPTER 5 PART LISTING

MKF SILICONIZED





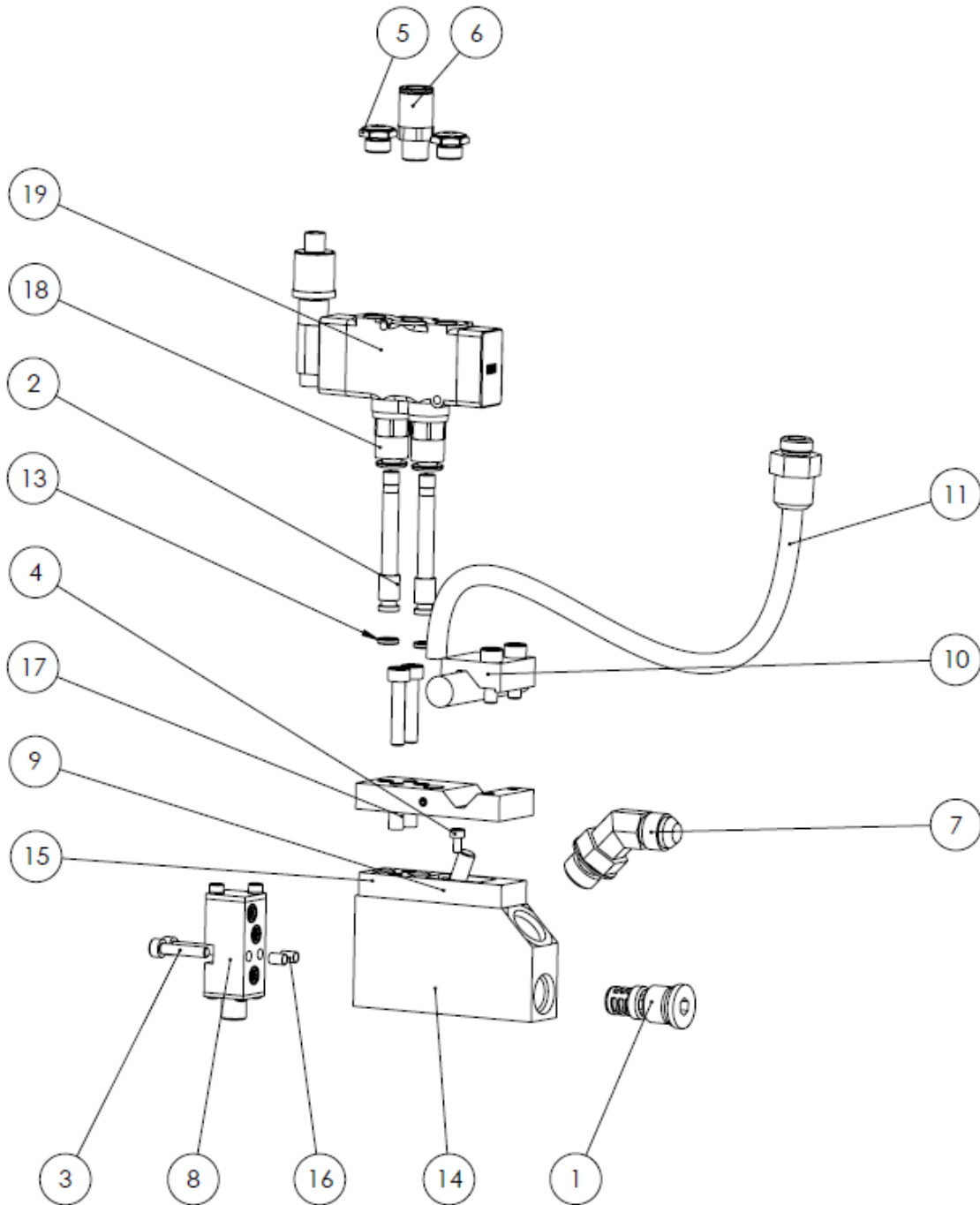
VALCO MELTON

Nº	Descripción	Description	Ref.	Qty
1	CUERPO PISTOLA MKF1 SILICONADO	MKF SILICONIZED BODY GUN	depending model	1
2	CONJUNTO MINIFILTRO	MINIFILTER ASSEMBLY	depending model	1
3	TAPA MINIMODULO MKF	MKF MINIMODULE LID	913XX671	1
4	TUBO AIRE MKS	MKF AIR PIPE	913XX673	2
5	TORNILLO ALLEN M4X20 INOX.	ALLEN SCREW M4X20 STAINLESS	914XX304	2
6	TORNILLO ALLEN M3X6 INOX.	ALLEN SCREW M3X6 STAINLESS	911XX132	1
7	SILENCIADOR CORTO G1/8-BN	SHORT MUFFLER 1/8" GAS	917XX286	1
8	RACOR RECTO R1/8 / ER8-BN	STRAIGHT FITTING 1/8 PIPE 8 E/R	988XX017	1
9	TAPA RACOR MKF1	MKF FITTING LID	913XX672	1
10	RACOR ADHESIVO	ADHESIVE FITTING	depending model	1
11	SONDA TEMPERATURA	TEMPERATURE PROBE		1
12	CONJUNTO SOPORTE PISTOLA MKF1	MKF GUN SUPPORT ASSEMBLY	913XX677	1
13	MAZO CABLES MKF NI120	MKF NI120 CORDSET	913XX287	1
14	RACOR RECTO G1/8" ER6 BN	STRAIGHT FITTING G1/8" ER6 BN	913XX676	2
15	HELICOIL M4X6	M4X6 HELICOIL	911XX425	2
16	HELICOIL M5X7,5	M5X7,5 HELICOIL	915XX261	2
17	RESISTENCIA 6,35X35 85W 230V	6,35X35 85W 230V CARTRIDGE HEATER		1
18	ELECTROVALV MAC 26A 5 VIAS 1/8" BSPP 12W	SOLENOID VALVE MAC 26A 5 VIAS 1/8" BSPP 12W	913XX288	1
19	MINIMODULO II CORDON	MINIMODULE II	919XX010	1
20	JUNTA TORICA VITON 5X1,5	VITON O-RING Ø5X1,5	913XX674	2
	CHAPA EXTRACCION ELECTROVALVULA MKF	MKF SOLENOID EXTRACTION SHEET	900XX120	1
1.A	CUERPO PISTOLA MKF1 SILICONADO	MKF SILICONIZED BODY GUN	913XX670	1
1.B	CUERPO PISTOLA MKF RBT SILIC	MKF SILICON RBT BODY GUN	913XX783	1
2.1	CONJUNTO MINIFILTRO 100 MESH (5 UD)	100 MESH MINIFILTER ASSEMBLY (5 UD)	913XX289	1
2.2	CONJUNTO MINIFILTRO 200 MESH (5 UD)	200 MESH MINIFILTER ASSEMBLY (5 UD)	913XX595	1



VALCO MELTON

MKF WITHOUT SILICONE





VALCO MELTON

<i>Nº</i>	<i>Descripción</i>	<i>Description</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Qty</i>
1	CONJUNTO MINIFILTRO COMPATIBLE ND	MINIFILTER ASSEMBLY			1
2	TUBO AIRE MKS	MKF AIR PIPE	913XX673		2
3	TORNILLO ALLEN M4X20 INOX.	ALLEN SCREW M4X20 STAINLESS	914XX304		2
4	TORNILLO ALLEN M3X6 INOX.	ALLEN SCREW M3X6 STAINLESS	911XX132		1
5	SILENCIADOR CORTO G1/8-BN	SHORT MUFFLER 1/8" GAS	917XX286		1
6	RACOR RECTO R1/8 / ER8-BN	STRAIGHT FITTING 1/8 PIPE 8 E/R	988XX017		1
7	RACOR M/M 9/16 JUNTA VITON	9/16" M-M FITTING		943XX002	1
	JUNTA TORICA VITON 12X2	VITON O-RING Ø12X2	910XX049		1
8	MINIMODULO II CORDON	MINIMODULE II	919XX010		1
10	CONJUNTO SOPORTE PISTOLA MKF1	MKF GUN SUPPORT ASSEMBLY	913XX677		1
11	MAZO CABLES MKF NI120	MKF NI120 CORDSET	913XX287		1
13	JUNTA TORICA VITON 5X1,5	VITON O-RING Ø5X1,5	913XX674		2
14	CUERPO PISTOLA MKF1	MKF1 GUN BODY	913XX812		1
15	AISLANTE SOPORTE MKS1	MKS1 SUPPORT INSULATOR	913XX813		1
16	HELICOIL M4X6	M4X6 HELICOIL	911XX425		2
17	HELICOIL M5X7,5	M5X7,5 HELICOIL	915XX261		2
18	RACOR RECTO G1/8" ER6 BN	STRAIGHT FITTING G1/8" ER6 BN	913XX676		2
19	ELECTROVALVULA 4/2 SE 5,4W 24VDC 1/8	SOLENOID VALVE 4/2 SE 5,4W 24VDC 1/8	913XX288		1

1.1	CONJUNTO MINIFILTRO 100 MESH (5 UD)	100 MESH MINIFILTER ASSEMBLY (5 UD)	913XX289		1
1.2	CONJUNTO MINIFILTRO 200 MESH (5 UD)	200 MESH MINIFILTER ASSEMBLY (5 UD)	913XX595		1