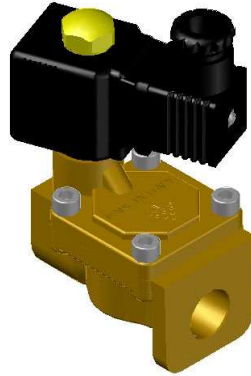




USE AND MAINTENANCE



This instruction manual is an integral part of the product to which it refers and it must accompany it in case of sale or transfer. Keep this instruction manual for every future use. VALVOLMECCANICA reserves the right to modify, at any time, the product's technical specifications.



READ CAREFULLY THIS INSTRUCTION MANUAL BEFORE THE INSTALLATION OF THE PRODUCT

The observance of what is related in this instruction manual is an essential condition for the safety of the operator, the integrity of the product and the maintenance of the general guarantee of sale. This equipment is designed for the installation on crop spraying agricultural machines and it must be employed only for the use for which it has been created. Every other use has to be considered improper and dangerous.

VALVOLMECCANICA is not liable for any damage due to alterations and improper uses. The installation must to be done by qualified personnel.

The equipment complies with the following regulations:

- Directive 2004/108/CE (Electromagnetic compatibility)
- Law EN ISO 14982 (Electromagnetic compatibility – Agricultural and forester machines).

SUMMARY

1. INTENDED USE
2. INSTALLATION/USE
3. SAFETY REGULATIONS
4. MAINTENANCE
5. PROBLEMS AND POSSIBLE SOLUTIONS
6. DISPOSAL
7. GUARANTEE STATEMENT

1 – INTENDED USE



The EL00 series valves are solenoid electrovalves and were designed for individual and modular use, by using a common entry's collector.

They can be employed assembled in compact systems using the additional features available in the general catalogue.

2 – INSTALLATION/USE

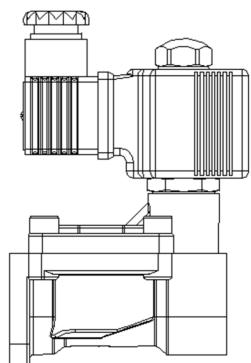


Every installation and maintenance operations must be done by qualified personnel, without under-pressure circuit and without electricity supply.

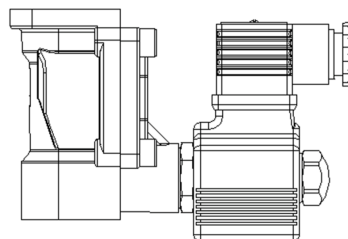
The EL00 series valves, in any configuration, must be collected to the system's outlet circuit.

VALVOLMECCANICA is not liable for direct or indirect damages as a result of use of its valves with the various kind of substances employed for crop spray treatments. The operator has full liability for the use of above-named materials, so he is bound to verify the security measures indicated on the package of these products by the manufacturer and he must wear appropriate devices and individual protection garment as enacted by law.

VALVOLMECCANICA is therefore not liable for any accidents or damages to persons, animals or equipments resulting from an improper, not protected or not recommended use of the products employed.



YES



NOT

THE VALVES MUST BE LOCATED HORIZONTALLY. EVERY OTHER PLACEMENT IS DIMED INCORRECT.

For the installation there are forecasted two attachment's holes directly on the crop duster. For the setting up of the valves and the possible test of the crop duster it must be used EXCLUSIVELY clean water. The input voltage is indicated on the electromagnet.

Verify the hydraulic joint's airtight and the correct connection of the power and control cables.

The EL00 valves have been designed for the installation on crop spray machines and they comply with the following regulations:

- Directive 2004/108/CE (Electromagnetic compatibility)
- Law EN ISO 14982 (Electromagnetic compatibility – agricultural and forester machines).

3 – SAFETY REGULATIONS



WARNING:

- Every installation and maintenance operations must be done by qualified personnel and without under-pressure circuit and electricity supply;
- Don't activate in vain the valve for long time because some internal parts could be damaged;
- Don't install the valves inside the driver's cab;
- Install on the outlet line of the pump a maximum pressure valve calibrated 40 bar;

- During the handling and the installation, any foreign body doesn't have to entry in the valve;
- The electrical connections and the activation must be done by qualified personnel;
- VALVOLMECCANICA is not liable for any damages to equipments, persons, animals or things resulting from a wrong installation;
- Before doing the electrical connection, verify the correct voltage;
- Install the valves far from any source of heat;
- Don't power the electromagnet before its assemblage to the valve body;
- It's possible to spin and direct the electromagnet in the most appropriate position loosening or closing the fixing nut. The heating of the electromagnet during its use is a normal condition. The anomalous over-heating is distinguished by smoke and sharp smell. In this last case, stop immediately any supply.

4 – MAINTENANCE



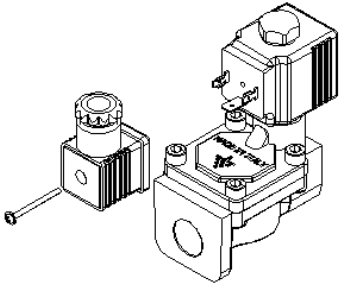
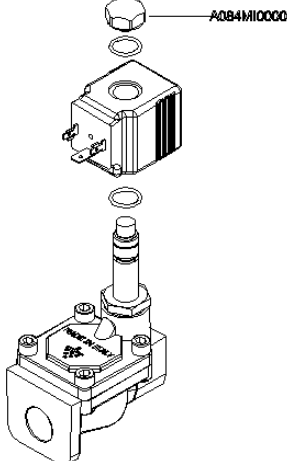
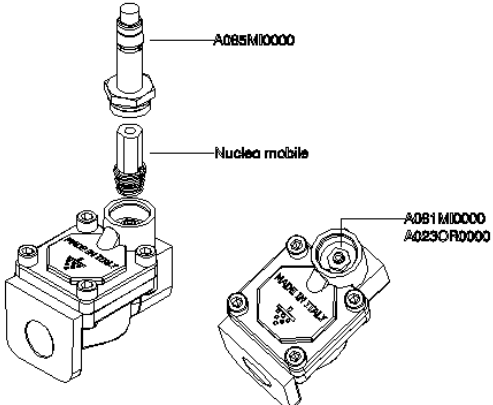
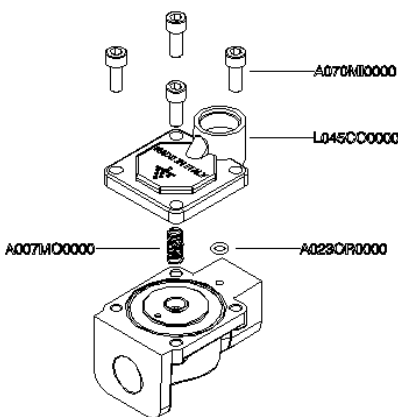
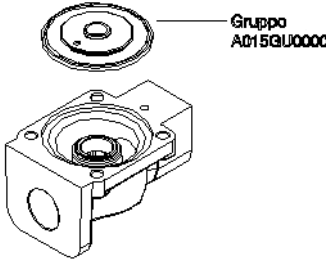
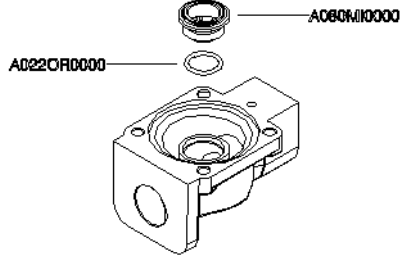
- Before every maintenance's operation, turn off the electrical connection;
- Always wear individual protection garment;
- Don't wash the outside valves with high-pressure water.

WARNING

Do the **ordinary maintenance** at the end of every working day with a complete wash of the system sucking out and putting in the circuit clean water, possible waste of chemical solution must be collected carefully and opportunely disposed off.

If are used particularly aggressive pesticides, do the **extraordinary maintenance** on the average of every 100 hour of work and **always** at the end of every agricultural season.

EXTRAORDINARY MAINTENANCE

		
<p>1 – Turn off the electrical connection to the valves; 2 – Remove the connector loosening the screw</p>	<p>1 – Remove the coil and the O-Ring loosening the A084MI0000 nut</p>	<p>1 – Unscrew the A085MI0000 guide-group with a 22 hexagonal spanner and remove the mobile-group; 2 – Clean internally the guide-pipe; 3 – Check the integrity of the mobile-group's airtight gasket; 4 – Check that the mobile-group's areas are clean and without deposits; 5 – If necessary, change the mobile-group; 6 – Ensure that the A081MI0000 inset is clean and not-worn and, if necessary, unscrew it with a 10 hexagonal spanner and replace it changing at the same time also the A023OR0000 O-Ring.</p>
		
<p>1 – Remove the L045CO0000 cover, the A023OR0000 O-Ring and the A007MO0000 spring unscrewing the 4 A070MI0000 nuts.</p>	<p>1 – If necessary, change the A015GU0000 membrane; 2 – The membrane must be placed like in the picture above; 3 – Check the integrity of the gasket inside the group and if it is necessary, change it.</p>	<p>1 – Check the cleanliness and the integrity of the A080MI0000 seating; 2 – If necessary, unscrew it with a 12 hexagonal spanner and replace it changing at the same time also the A022OR0000 O-Ring.</p>

IMPORTANT:

Repeat backwards the steps indicated above to assemble the valve after the extraordinary maintenance.

5 – PROBLEMS AND POSSIBLE SOLUTIONS

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
The water doesn't come out from the valve	The valves' connectors aren't joined	Verify the electrical connection
	The electromagnet of the valve doesn't work	
	The outlet filter is dirty	Clean the filter
	Dirt/oxidations inside the group	<ul style="list-style-type: none"> - Clean the circuit with clean water; - Do an extraordinary maintenance; - Send the valve to the nearest Customer Service
The mobile group is encrusted		
The valve doesn't close	Dirt/oxidations inside the group	<ul style="list-style-type: none"> - Wash the circuit with clean water; - Do an extraordinary maintenance; - Send the valve to the nearest Customer Service
	The mobile group is encrusted	
	The membrane and the Viton gasket are damaged	
The electromagnet produces smoke and sharp smell	The electromagnet is damaged	<ul style="list-style-type: none"> - Stop immediately the work and replace the electromagnet; - Send the valve to the nearest Customer Service

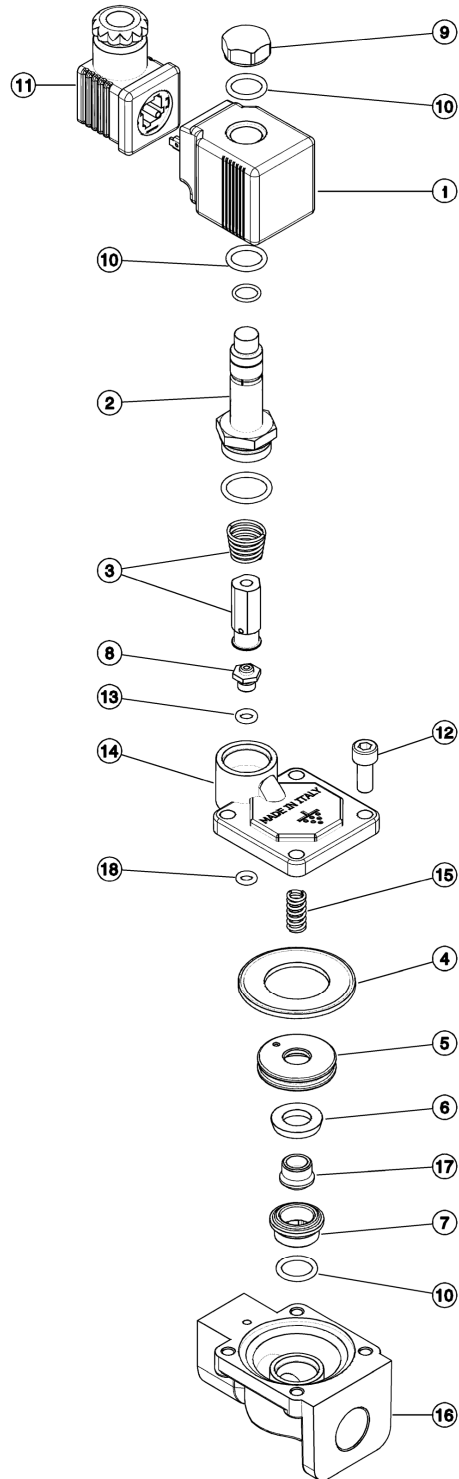
6 – DISPOSAL

This device has to be disposed of in compliance with the current regulation of the country of use.

7 – GUARANTEE STATEMENT

This device is guaranteed for a period of 12 months from the date of sale to the client user. The complete information about the guarantee statement are available in the VALVOLMECCANICA's general catalogue and on our web site at this address: <http://www.valvolmeccanica.com>

EL00 ELECTROVALVE EXPLODED VIEW DRAWING



PARTS LIST

N.	CODE	DESCRIPTION	QUANTITY
1	A086MI0000	COMPLETE COIL	1
2	A085MI0000	FIXED GROUP	1
3		MOBILE GROUP	1
4	A015GU0000	VITON MEMBRANE	1
5	A082MI0000	MEMBRANE SUPPORT	1
6	A016GU0000	GASKET SEATING	1
7	A080MI0000	SEATING INOX	1
8	A081MI0000	PILOT SEATING INOX	1
9	A084MI0000	LOCK NUT	1
10	A022OR0000	O-RING 14 X 1,78	1
11	A087MI0000	CONNECTOR	1
12	A070MI0000	SCREW M6 X 16	4
13	A023OR0000	O-RING 5,28 X 1,78	1
14	L045CO0000	UPPER BASE	1
15	A007MO0000	SPRING	1
16	L046CO0000	BODY	1
17	A083MI0000	SCREW	1
18	A023OR0000	O-RING 5,28 X 1,78	1

CONFORMITY DECLARATION



VALVOLMECCANICA of Cevenini Lorenza e Chiara & C. S.n.C.

Via Privata Adige, 4

28078 ROMAGNANO SESIA (NO)

P.IVA 00932700032

Declares that the device EL00 Electrovalve 12V supplies to the conformity requirements envisaged by the following European Directives:

- 2004/108/CE and next amendment of the law (Electromagnetic Compatibility)
- EN ISO 14982 (Agricultural and forester machines – Electromagnetic Compatibility) .

Romagnano Sesia, 22 November 2011

Lorenza Cevenini

Legal Representative

VALVOLMECCANICA SNC