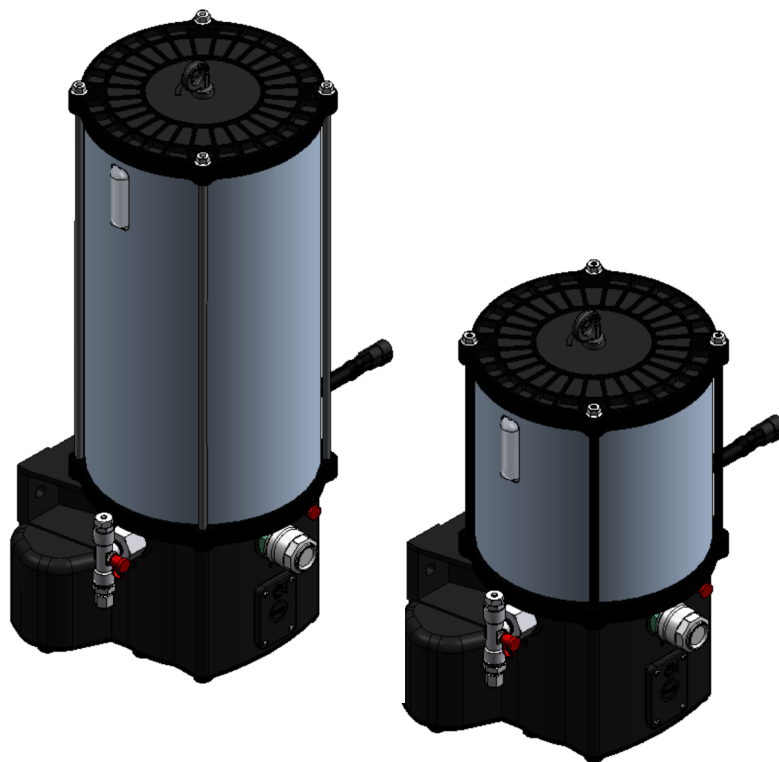




EUR 3 IRON VERSION

4 and 8 Liters

Stainless steel
reservoir protection



OPERATION AND MAINTENANCE MANUAL

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PART 1 - GENERAL CONSIDERATIONS
OVERVIEW OF THE COMPANY

CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l. is specialized in the design, manufacture and installation of centralized lubrication points. The company, which initially produced industrial vehicles only, has developed in the years, thanks to the vast experience acquired, earth moving machines and machinery for industrial applications.

Its dynamism has led it to upgrade its engineering, manufacturing and quality control systems with state-of-the-art solutions.

The Quality Control System adopted by the company was certified, in 2001, as compliant with the requirements of standard UNI EN ISO 9002 by the certification body named Det Norske Veritas Italia s.r.l..

The company's mission is supplying its customers with full assistance, from the supply, installation of dependable products down to on-site maintenance.

CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l., is a leading Italian company, with over 35 years of experience that has gradually expanded its market and now serves several European customers.

MANUFACTURER'S DATA

Name	-	CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.
Address	-	Via Guerrazzi, 113 – San Miniato Basso 56028 – Pisa ITALY
Telephone	-	+39 0571 42661
Fax	-	+39 0571 42244
Web site	-	www.ciaponilube.com
e-mail address	-	export@ciaponilube.com
Tax-payer code/VAT no.	-	IT01160480503

CUSTOMER SERVICE

CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l. follows its customer directly by means of its post-sale servicing.

To request further information or order spare parts, it is possible to contact the **Customer Service** at the phone/fax numbers listed above.

GENERAL WARNINGS

© **All rights reserved.** First edition, January 2025.

This Maintenance and Operation Manual has been prepared by **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** and is supplied as is.

Therefore, it cannot be copied, reproduced, circulated or transcribed, in whole or in part, without the written authorization of **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.**

The Manufacturer may change the content of this manual at any time, without warning, for technical or commercial reasons or to comply with new standards or laws.

SYMBOL LEGEND

Key to symbols for the correct text interpretation

The symbols listed will be reported to the left of the text or in the vicinity of contents to which the reader should pay attention.



Prohibition signal: it prohibits an action that could cause a hazard.



Prescription signal: it prescribes specific behavior.



Warning signal: it warns of a risk or generic danger.



Electrical warning signal: it warns of a risk or danger of contact with electrical parts.



Education signal: it feels you follow the instructions on the side.

SCOPE OF THIS MANUAL

This manual supplies the user with all the information required to install, use, service and dismantle the system.

CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l. shall not be responsible for damages or faults caused by the failure to comply with the warnings and instructions provided below.

It is therefore advisable to:



• Carefully read all the parts of the Operation and Maintenance Manual.



• Keep a copy of the manual in a safe place and always make it available to all operators working with it.

HANDBOOK STRUCTURE

The Complete Handbook is composed of the following parts.

Part 1 – General aspect

Consists of all the information of product presentation, describing the purpose and scope, the technical characteristics of the main components and the different versions, as well as the directions for the correct installation of centralized lubrication.

Part 2 – User Manual

Consists of all the general information is the entire set of information necessary for the operation of the plant and for correct control and use of the same.

Part 3 – Instruction for maintenance

Consists of all the information needed to adequately perform some simple maintenance. In this part there are also some very useful information in the event of a malfunction.

Part 4 – Spare parts

Consists of all the information necessary for the management of spare parts.

SAFETY STANDARDS APPLIED

Centralized lubrication systems are designed, manufactured and installed in accordance with the requirements set forth in Directive 2006/42/EC. Therefore, for the purposes of the EC marking

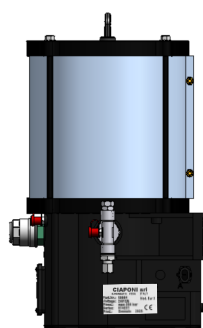


Figure 1

implant, that is placed in the position shown in *figure 1*, adhesive is applied to a metal plate, as shown in *figure 2*, and in which are contained the following information:

- Manufacturer's data
- Model / Type
- Serial number / Year of manufacture
- Power supply data



Figure 2

Example of a metal plate for EC marking of a pump model Euro 3, type 50001, power supply 24 V DC, serial number n° 074237 and lot of production January 2025 (month/year).

DECLARATION OF CONFORMITY

The Manufacturer - **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.**

Address - Via Guerrazzi, 113
San Miniato Basso - 56028 PISA
ITALIA

Telephone - +39 0571 42661

Fax - +39 0571 42244

Website - www.ciaponilube.com

e-mail address - export@ciaponilube.com

Tax-payer code/VAT no. - IT01160480503

Declare that the machine:

Model - **Elettropompa**

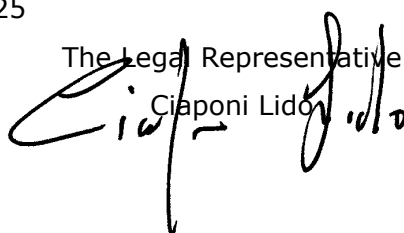
Type - **EUR 3**

- complies with the requirements of Directive **2006/42/EC**, Annex **II**, section **A**, on the approximation of the laws of Member States relating to machinery;
- complies with essential requirements of the Directives:
 - **EMC 2004/108/EC** "Electromagnetic Compatibility", in application of Directive **95/54/EEC** "Measure Radiated Electromagnetic Emissions", and subsequent amendments;
 - **BT 2006/95/EC** "Low Voltage".





Also declares that:

- laboratory tests were carried out in accordance with the following standards:
 - CEI EN 61000-6-4 (2002/10); CEI EN 61000-6-2 (2000/02); CEI EN 61000-3-2 (2002/04); CEI EN 61000-3-3 (1997/12); CEI EN 60204-1 (1998/04); CEI EN 50178 (1999/03);

San Miniato Basso, January 2025

The Legal Representative
Ciaponi Lido


It is useful to remember that the Declaration of Conformity is valid only if:





-  • The indications, safety warnings and instructions given in the operation and maintenance manual are observed.
-  • The system is used in accordance with the instructions provided by the manufacturer.
-  • Adjustment operations are carried out by authorized, trained and qualified personnel.
-  • Maintenance operations are carried out by qualified and authorized technicians.

Failure to comply with the requirements listed in the Certificate of Conformity shall automatically invalidate the warranty.

1.1.0) RECOMMENDED USE

Centralized lubrication systems are designed to automatically lubricate points subject to wear, after their identification.



Therefore, they must be used only for the lubrication of the points to which they are connected.

-  • Users are not allowed to apply unauthorized changes to an installed system. Modifications must be carried out or authorized by the manufacturer only.
-  • The system should always be used within the operating parameters specified in paragraph **1.4.0) TECHNICAL SPECIFICATIONS**.
-  • The system must be used only with the fluids listed in paragraph **2.3.1) LUBRICANTS**.
-  • The Technical Department of **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** can be contacted for further information or feasibility studies.

The manufacturer shall not be responsible for damages originating from an improper use or the unauthorized modification of the system or its components.

Furthermore, the manufacturer shall not be responsible for damages originating from the use of non-original spare parts or parts not certified by the manufacturer, or for damages originating from the use of lubricants other than those listed.

1.2.0) SAFETY

-  • An improper use of the centralized lubrication system may cause damage due an excessive or inadequate lubrication of the points to which it is connected.
-  • It is always necessary to comply with accident prevention and environmental regulations in force in the country where the centralized lubrication system is used.

1.3.0) DESCRIPTION OF THE SYSTEM

Figure 3 shows a schematics of the centralized lubrication system in its basic configuration.

The system comprises the following units:

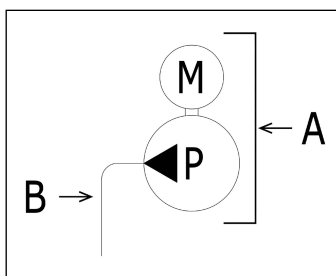


Figure 3

A – Electropump with tank

B – Main pipe

Centralized lubrication systems significantly reduce the maintenance costs of the equipment on which they are installed, lowering downtime for maintenance operations and increasing the life of lubricated components.

These systems also enable to reach all the points that require lubrication, including those that are not accessible to operators.

If is active, the electric pump supplies, through the main pipe derived from the pumping element, the points to be lubricated.

The diagram in figure 4 shows the operating cycle of a centralized lubrication system. The system can be operated both in manual or automatic mode, driven by the machine on which it is installed or by a control timer fitted

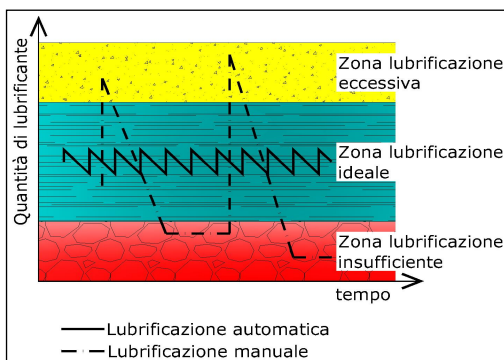



Figure 4

inside the pump.

Each system is identified by means of a serial number stamped on the EC label, under serial number/year of manufacture.

-  • The serial number of the system must always be quoted when requesting technical information or ordering spare parts.

1.4.0) TECHNICAL SPECIFICATIONS

The paragraphs that follow list the technical specifications of each component of the system.

1.4.1) ELECTROPUMP

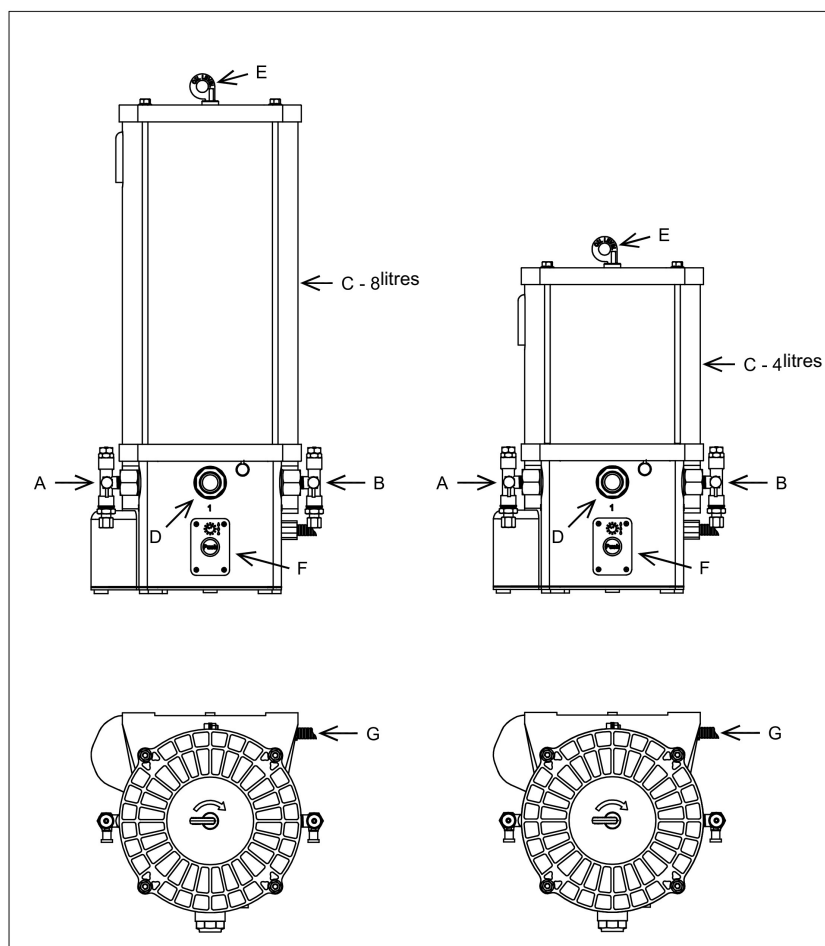


Figure 5

Electropump model **EUR 3** is a volumetric pump driven by an eccentric cam, designed to operate with grease, that can be used with a maximum of two pumping elements (*figure 5* ref. **A**, **B**) connected to the lubrication centralized.

The housing of the pump is a compact monobloc element in plastic, shaped in order to offer a full resistance to mechanical stresses.

The reservoir (*figure 5* ref. **C**) is made with a modular system in transparent polycarbonate with 4- and 8-liter capacities, with stainless steel protection.

The filling of the reservoir takes place by means of a special screw cap for lubrication (*figure 5* ref. **D**) situated in the front part of the pump body.

The level of the reservoir is checked by the rod system (*figure 5* ref. **E**) located on the top of tank.

The electric pump is operated by a pressure switch connected to the hydraulic system of the machine on which the central lubrication system is installed, and the programming of the working phase takes place through a control timer (*figure 5 ref. F*).

The electric pump model **EUR 3** is powered at 24 V DC through the wiring with connector (*figure 5 ref. G*).

The technical specifications for electropump **EUR 3** are listed below:

- Operating temperature _____ from - 30°C to + 80°C
- Number of outlets _____ 2
- Pumping system _____ Ø 4, 6, 8 mm pistons, driven by eccentric cam
- Connection of main pipe _____ Quick fitting, for Ø 6 mm pipe
- Reservoir capacity _____ 4 - 8 litres with the rod system for check level and stainless-steel protection
- Lubricant _____ Grease up to consistency grade **NLGI 2**
- Reservoir filling _____ Special screw cap for lubrication
- System for the removal of air bubbles _____ Rotating cylinder and windscreen wiper
- Capacity per outlet _____ From 1,65 cm³/min to 6,6 cm³/min
- Reduction gear _____ Worm, with helical wheel and DC shielded electric motor
 - Rated voltage _____ 24V DC
 - Rated absorption _____ 24V DC - 0,5A
 - Max pickup absorption _____ 24V DC - 3A
 - Rotation speed _____ 22 rpm (rotations per minute)
- Power supply _____ 24V DC
- Protection class _____ IP65
- Control system _____ with **Timer**

TABLE B is shown for each model, the empty weight of the pump in standard configuration with two pumping elements installed:

Table A

Lubricant	Reservoir capacity	
	4 litres	8 litres
GREASE	4,8 kg	5,5 kg

In the *figure 6* is shown for each model the maximum dimensions of pump expressed in [mm]:

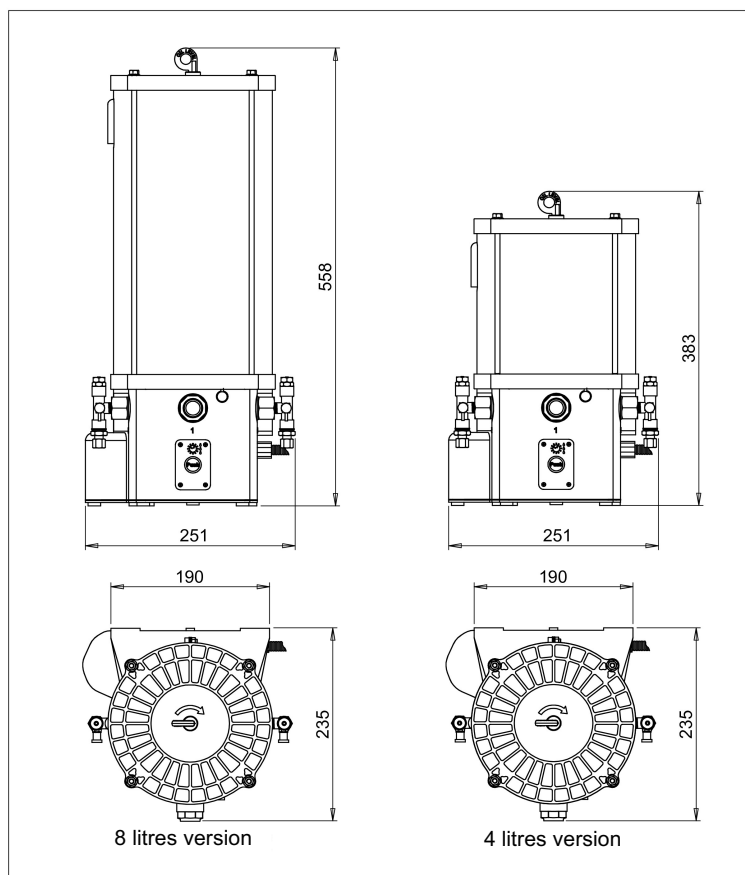


Figure 6

1.4.3) PIPING KIT

The main pipe is supplied with compression sleeves, pre-filled with lubricant, in order to avoid the formation of harmful air bubbles. The characteristics of the lubricant used are specified in section 2.3.1) *LUBRICANTS*.

The following table shows the available main and secondary pipes for central lubrication systems.

Code	Description	Length
50011	Kit R7 1/8 flexible connecting pipes	15 meters

- **MAIN PIPE**

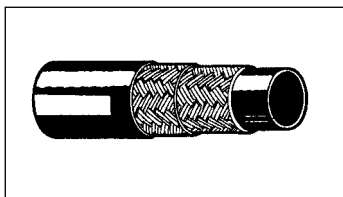


Figure 7

The main pipe is used to connect the pumping element to the progressive dispenser. This pipe consists in an hydraulic anti-abrasive pipe with very high chemical and physical characteristics, with a sub-layer in thermoplastic polyester, a reinforcement consisting in 2 polyester braids and in black polyurethane thermoplastic and pre-drilled coating. The polyurethane used for

external coating offers a high resistance to abrasion and environmental agents (i.e. salt water, micro-bacteria, ozone, etc.). The technical specifications of the main pipe are:

- Compliant to standards _____ SAE J517, sec. SAE 100 R7 – EN855 – ISO3949
- Main pipe code _____ **00760**
- External diameter _____ 1/8" - 8,2 mm
- Operating temperature _____ From - 40°C to + 93°C
- Minimum burst pressure at 20°C _____ ~ 840 bar
- Minimum bending radius _____ 25 mm
- Weight _____ 45 g/m

1.4.6) TIMER

The timer is located inside the pump housing, in a waterproof area. Its function is to automatically control the centralized lubrication system.

Technical specifications for models with Pause/Operation timer, 24 V DC

- Operating voltage _____ 20 ÷ 30 V DC
- Maximim current load _____ 5 A
- Short-circuit limitation _____ 7 A
- Current absorbed in stand-by _____ 30 mA
- Current absorbed during the cycle _____ 50 mA (except current motor)
- Lamp power _____ from - 25°C to + 70°C
- Operating temperature _____ from - 30°C to + 80°C
 - Overload limitation
 - Polarity inversion
 - Overheating
 - Overvoltage (max 45 V)
- Hardware protections _____
- Type of time memory _____ Digital type **EEPROM**
- Memory life _____ Unlimited
- Working time setting _____ From 1 sec a 30 sec through digital programming

WARNINGS:

- Power the timer by thoroughly following the instructions provided in 4.1.0) WIRING DIAGRAM.



- Do not power the timer with voltages above 35 V to prevent operating problems.

1.5.0) STORAGE

The centralized lubrication system is usually supplied disassembled to customers.

Before forwarding the system, **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** adopts all the necessary measures to guarantee a correct packaging of all the components.



- The user shall be responsible for storing all the components received by **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.**, indoors, in clean and dry rooms and at a safety distance from chemical and/or corrosive substances.



- **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** shall not be responsible for damages originating from the incorrect storage of the components described.



- It is useful to remember that the user is fully responsible for a safe loading, unloading and handling of the system.

1.6.0) ASSEMBLY

The operating procedure that follows describes the operations that have to be carried out to assembly the centralized lubrication system.

For information on overall dimensions, weights and technical specifications of the single components, see Chapter 1.4.0) *TECHNICAL DATA*.

It is also useful to remember that:



- These operations must always be performed by trained and qualified technicians.



- The protection and safety devices fitted on the vehicle or machine should not be modified or disabled. These devices may be removed during the installation of the system but must be reinstalled after the installation has been completed.



- All centralized lubrication systems must be installed away from heat sources.



- Centralized lubrication systems should not be installed in particularly aggressive environments with chemicals that could potentially damage the components of the system.

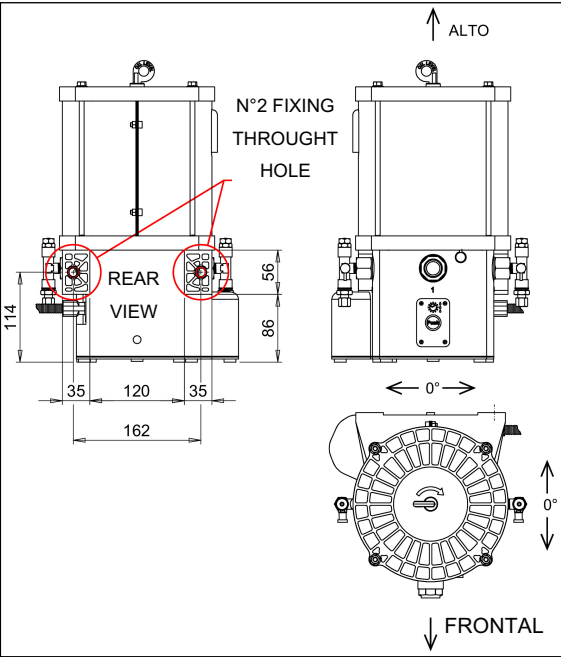


- Welding and/or drilling operations required to install the centralized lubrication system must be performed in compliance with the technical specifications of the vehicle or machine manufacturer.



- Lubrication systems must be fitted only with the accessories supplied or certified by the Manufacturer.

1.6.1) OPERATING PROCEDURE

F	Activity
0	Remove all the components of the system from the package.
1	Visually inspect all the components of the system in order to detect potential damages originating from transportation or from an improper storage. All damages should be promptly reported to the Customer Service of CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.
● ELECTROPUMP	
2	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>The drawing shows three views of the electropump: a rear view with dimensions 114 (height), 35 (width), 120 (width), 35 (width), and 162 (total width); a top view with dimensions 56 (width) and 86 (height); and a front view with a 0° angle. Labels include 'N°2 FIXING THROUGH HOLE', 'REAR VIEW', 'ALTO', and 'FRONTAL'.</p> </div> <div style="width: 50%;"> <p>It is advisable to observe the following recommendations:</p> <ul style="list-style-type: none"> • Do not install the submerged pump in liquids or on supports with high vibrations. • Do not install the pump next heat sources or close to the electric equipment that could affect the correct operation of the control timer. • Do not install the pump in areas with explosive or inflammable mixtures. • Place electropump EUR 3 in the position shown in the figure. • Leave at least 100 mm from other equipment or obstacles that prevent access to the pump. </div> </div> <p>to the pump.</p> <ul style="list-style-type: none"> • Install the pump making sure that the lubricator for the reservoir filling and the control timer are easily accessible. • Fix the pump to its support using the \varnothing 9 mm holes and the 2 M8 UNI5931 - 8.8 screws. <p>Note: it is also possible to use the STANDARD ROD cod. 50009 available with fixing kit.</p>
● FITTING KIT	
3	Remove the lubricators from the bearing points of the automatic system that require lubrication.
4	Tighten the fittings of the bearing points. NB: use extensions for the fittings if difficulties arise due to the lack of space or the incorrect positioning of fittings on the bearing points.

1.6.2) WIRING DIAGRAM VERSION 24 V DC

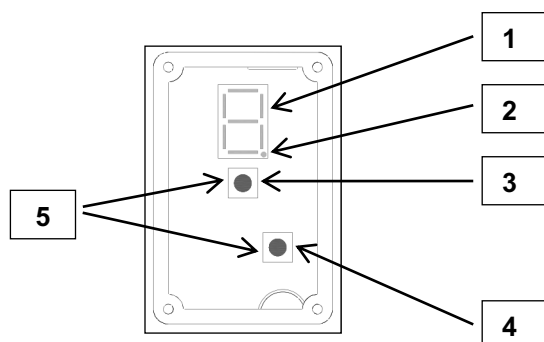
- *VERSION WITH TIMER PAUSE/WORK*

PART 2 – OPERATING MANUAL

2.1.0) COMANDS

The table that follows describes the command and control devices of centralized lubrication systems with Pause/Operation timer and Pause/Sensor timer.

The figure shows the devices installed on the Timer.



The pump of versions without timer are electrically powered by the system that drives them. In this case, start and control instructions are described along with the management and control instructions of the machine where the system is installed.

Pos	Type	Description
1	Display	<ul style="list-style-type: none"> It displays the parameters that have been set during the time setting procedure. The display LEDs turn on in sequence during ordinary operation.
2	Led display	This LED turns on when the lubrication system is electrically powered.
3	Button TEST	<p>To access the timer, it is sufficient to slightly press it next to "Push".</p> <p>If it is pressed during ordinary operation, it starts the set working cycle after performing a self-diagnostic check. At the end of the working cycle, the timer returns to the Automatic mode.</p> <p>If it is pressed during the timer programming, it enables to scroll the options.</p>
4	Button ENTER	<ul style="list-style-type: none"> If it is pressed for 3 seconds, it starts the digital programming procedure. If it is pressed briefly during the programming mode, it enables to change the L (working) values.
5	Buttons ENTER - TEST	<ul style="list-style-type: none"> Pressing TEST and ENTER buttons simultaneously, in case of cycle start the pump stops.

2.2.0) TIMER PROGRAMMING

The sections that follow summarize the operations that need to be performed to digitally program the control timer.

It is useful to remember that if a power outage occurs, the timer saves the internal data in a digital memory that has no expiry. As soon as power is restored, the timer reloads the saved data and starts counting the time from the point and status in which it had interrupted its operation.

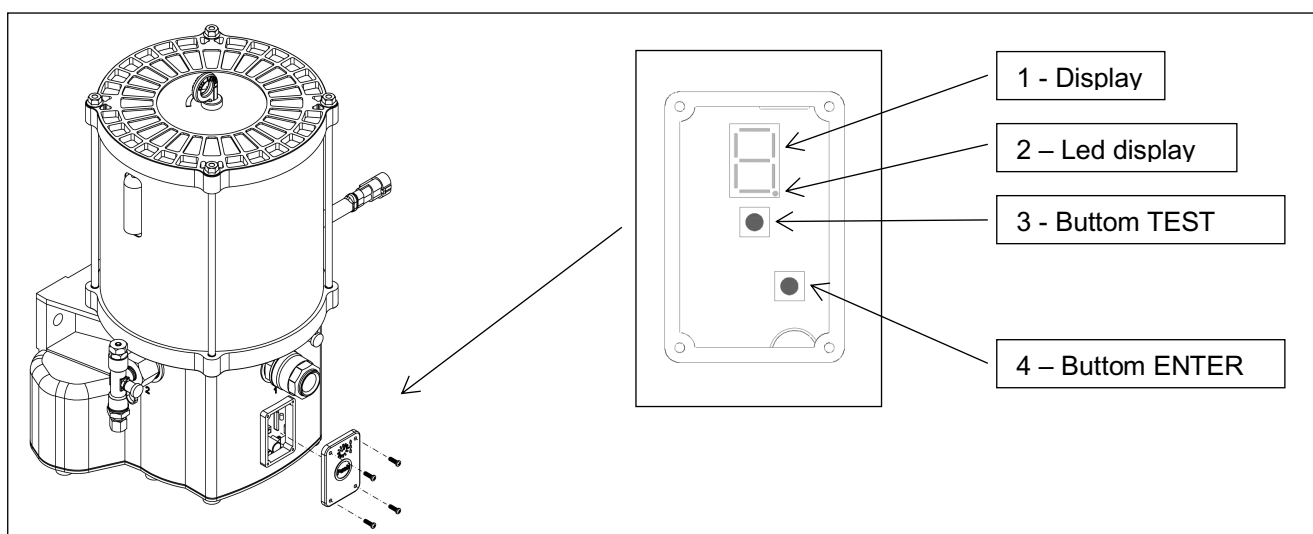


Figure 8

N°	Activity	Consequence
01	Loosen fixing screws and remove the cover to access the timer	This operation gives access to the timer for digital programming.
02	Press ENTER for 3 seconds	The display turns on and shows letter P (Pause).
03	Briefly press ENTER	The display shows the value set for parameter L (working time).
04	Press TEST to change the value of parameter L	Every time the button is pressed, the display shows in sequence the digits and letters of the pause time settings shown in the table.
05	Briefly press ENTER to confirm the setting	The displayed value is stored as current value for parameter L and the display shows once more letter L .
06	Press TEST to alternate the display of parameters P and L	The display shows letter L (working time). <ul style="list-style-type: none"> NB: it is useful to remember that TEST enables to alternate the display of letters P or L.
07	Press the button ENTER briefly	The display shows the set value for parameter L .

N°	Activity	Consequence
08	Pressing the TEST button changes the value of parameter L	Every time the button is pressed, the display shows in sequence the digits and letters of the working time settings shown in the table.
09	Briefly press ENTER to confirm the selected setting	The displayed value is stored as current value for parameter L and the display shown once more letter L .
10	Press ENTER for 3 seconds	The display turns off and is ready to run with the new set parameters.
11	Reassemble the timer access cover and re-screw the securing screws	The pump is ready to work.



WARNING - Electropumps with control timers have the following default settings:

- Working time **L** = **5** sec

Table with time settings

• WORK: settings for working times L	
Display	Time
1	1 sec
2	2 sec
3	3 sec
4	4 sec
5	5 sec
6	6 sec
7	7 sec
8	8 sec

• WORK: settings for working times L	
Display	Time
9	9 sec
A	10 sec
B	12 sec
C	15 sec
D	20 sec
E	25 sec
F	30 sec

2.3.0) RESERVOIR FILLING

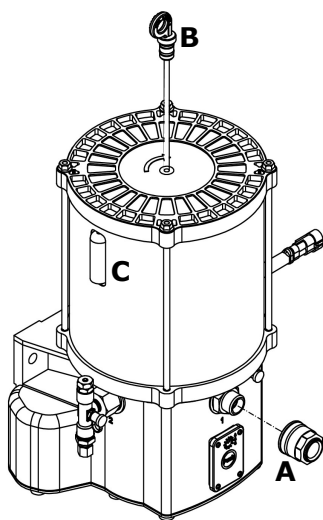


Figure 9

The pump reservoir is filled by screw cap means of lubricator "A". Remove the cap of the filler and, using a special nozzle, fill the reservoir to the maximum level verified by means of the appropriate "B" level rod. For information on the characteristics of lubricants, see the following paragraph.

During the filling of the tank, verify that the air in it is discharged by means of the vent "C". Make sure that the vent, located on the left side of the tank, is not obstructed.

2.3.1) LUBRICANTS



- It is useful to remember that systems manufactured by **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** are designed to be used with lubrications with a maximum grade of **NLGI 2**.
- Use only compatible lubricants with **NBR** gaskets.
- **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** supplies the system components that are already lubricated with **NLGI 2** lubricant.

Family description	NLGI grade	ASTM penetration at 25°C in 1/10 of mm
Fluid greases	000	445 - 475
Semi-fluid greases	00	400 - 430
Semi-fluid greases	0	355 - 385
Mild greases	1	310 - 340
Medium greases	2	265 - 295

The table provides comparative data between NLGI (National Lubricating Grease Institute) and ASTM (American Society for Testing and Materials) data only of the ranges used by the systems manufactured by **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** For further information on technical data and safety measures, see the **Product Safety Sheet** (Directive **93/112/EEC**) related to the

type of lubricant selected or supplied by the manufacturer

2.4.0) START-UP

The operating procedure described below briefly describes the operations that have to be performed to start the system.



NB: The following procedure should always be performed when:

- During the initial start-up following installation
- After every maintenance operation
- If the system has not been in operation for a considerable amount of time

2.4.1) OPERATING PROCEDURE

N°	Activity	Consequence
Make sure that: <ul style="list-style-type: none"> • All the operations described in Chapter 1.6.0) ASSEMBLY have been performed • All the Pause and Pause/Operation times have been set (for versions with control timer) • The lubricant level in the pump reservoir is above the minimum level 		
0	Disconnect one or more secondary pipes from the bearing lubrication points	Verify that the lubricant reaches the bearing.
1	Press the manual Start button (TEST)	The pump performs one cycle.
2	Repeat the operation described above until the lubricant reaches all the lubrication points of the bearings from which the pipes have been disconnected	The lubricant dispensing system is running correctly.
3	Reconnect the pipes to the bearing lubrication points	The system is set in Automatic mode.



• **WARNING:** if the system is not operating correctly, see Chapter 3.3.0) *ANOMALIES*

PART 3 – MAINTENANCE INSTRUCTION

3.1.0) MAINTENANCE INSTRUCTION

This paragraph provides essential information to allow maintenance technicians to perform ordinary maintenance operation in full safety

Before performing any maintenance operation, operators should remember to:

• Verify	That the system is not running
• Check	That the electropump has been disconnected from the power supply
• Check	That the disconnection switch upstream from the electric cubicle has been disconnected
• Adopt	All the measures referred to in current accident prevention laws and specifically those necessary to signal that servicing operations are in progress.

3.2.0) SCHEDULED MAINTENANCE

Due to simplicity of design, robustness and reliability of the components used, **CIAPONI LUBRIFICAZIONE CENTRALIZZATA s.r.l.** recommends only a limited number of inspections and scheduled maintenance operations.

The table that follows lists the checks that have to be performed periodically, along with the frequency and type of operation that the technician must perform to guarantee the efficiency of the system in time.

VERIFICA	FREQUENZA	INTERVENTO
Tightening of components	After the first 500 hours	Check that all components have been correctly tightened.
Pipe fixing	After the first 500 hours Every 1500 hours	Check that the fittings have been installed Check that machine parts have been correctly installed
Operation of the electropump	Every 6 months	Check the operation of the electropump with button Test
Reservoir level	As required	Refill the lubricant in the tank

3.3.0) ANOMALIES

This chapter provides information on:

- **Possible problems that may occur during the operation of the system**
- **The cause that may prevent the system from starting and stopping**
- **Corrective actions**

Nr	Anomaly	Cod.	Causa	Remedy to adopt
01	The pump motor doesn't work	01.01	No current	Check the power supply and the status of the fuse.
		01.02	The electronic card is not working	Replace the electronic card.
		01.03	The reduction gear doesn't work	Replace the reduction gear.
02	The pump doesn't delivery lubricant	02.01	The reservoir is empty	Fill the reservoir with clean lubricant.
		02.02	Air bubbles in lubricant	Disconnect the primary tube of the fitting of the pumping element. Start the pump manually until the lubricant expelled from the fitting is not perfectly cleaned.
		02.03	Unsuitable lubricant	Replace the lubricant with a suitable one
		02.04	Pumping unit element blocked	Disassemble the pumping element and clean the suction ducts
		02.05	Worn pumping element piston	Replace the pumping unit
		02.06	The delivery valve of the pumping unit is blocked	Replace the pumping unit
03	The pump runs, but no lubricant reaches the bearing lubrication points	03.01	Disconnect pipes	Check the status of the pipes and the connections to fittings. Replace worn pipes.
04	The display LED is on	04.01	The supply voltage is not correct	Verify that the supply voltage ranges between 20V DC and 30V DC, otherwise adjust the supply system.
05	The motor doesn't start when TEST is pressed	05.01	The motor is not correctly connected to the timer	Check the cables that connect the electric motor to the timer and restore connections.
		05.02	The motor is not working correctly	Check that the motor is not short-circuited and that it does not absorb a current above 7A. Replace the reduction gear.
06	The display LEDs alternate but the motor doesn't run	06.01	Faulty motor	Contact the Customer Service.
07	The pump starts the greasing phase but doesn't complete it immediately	07.01	Faulty motor or high output absorption	Allow the pump to cool down for a few minutes and retry. If the problem reoccurs, contact the Customer Service.

- **WARNING:** to require the provision of spare parts necessary to specify, in addition to the code of the particular request, the serial number of the system used and the version number, obtainable from the nameplate for CE marking, as shown in the figure.

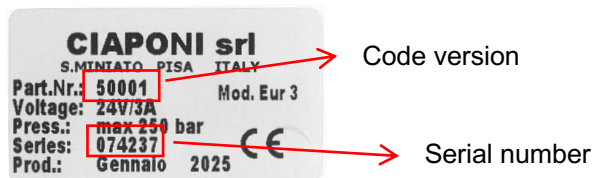
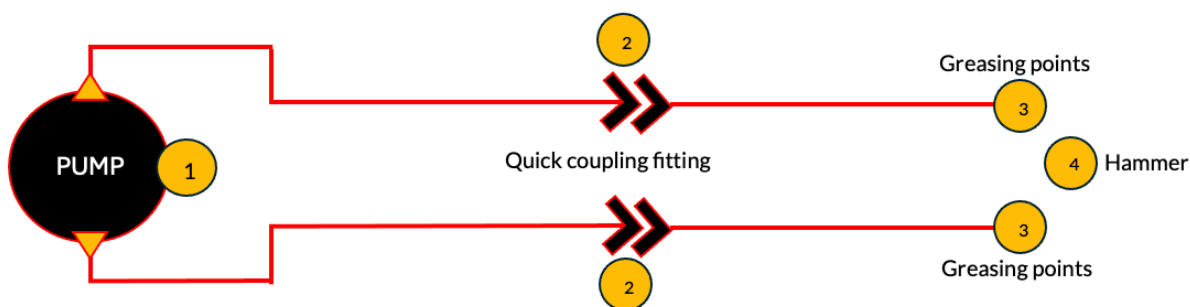
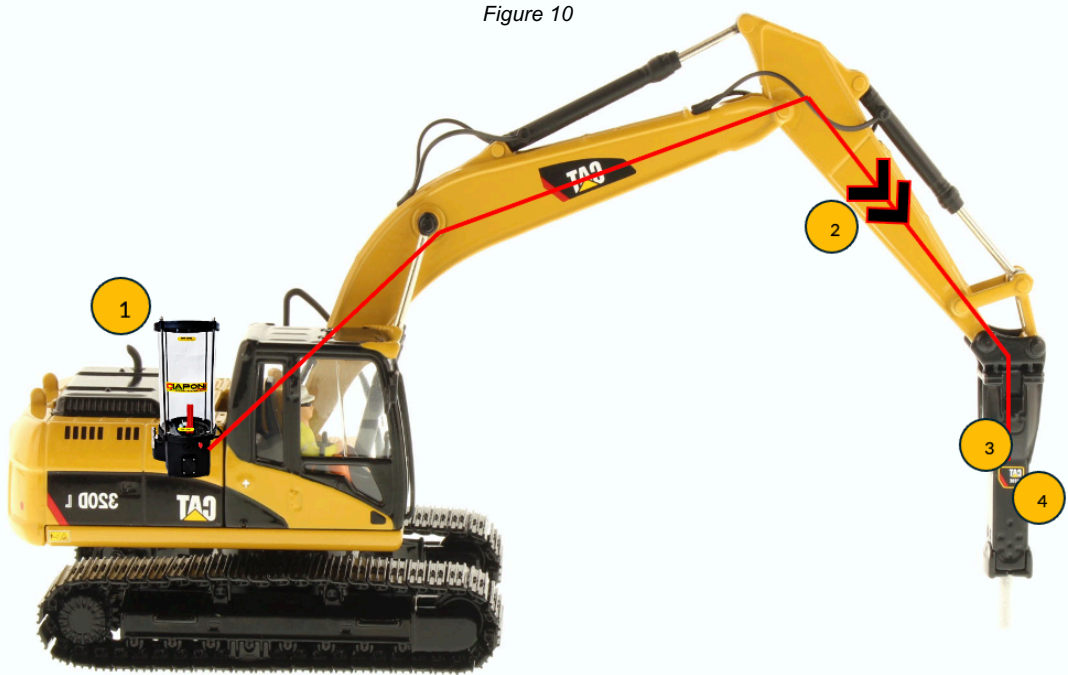


Figure 10



Pos	Codie	Quantity	Description
1	50003	1	Electropump EUR 3 - 8 litres with two outlets
	50005	1	Programmable timer
	50007	1	Pressure switch cable
	50008	1	Pressure switch
	00611	1	Bracket for pump
	50010	1	Kit Fittings
	50011	15 mt.	Main pipe flexible R7 1/8 with grease
2	00299	2	Complete quick coupling
	00494	100	Fixing kit

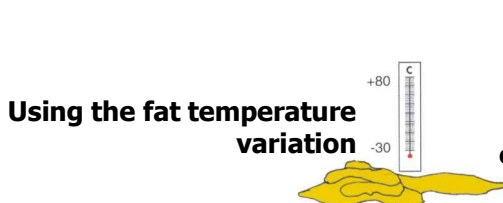
PRODUCT (Benefits)

Centralized Lubrication Ciaponi

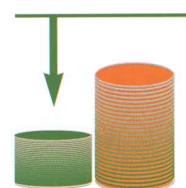
- ... lubrication even inaccessible points
- ... reduces wear
- ... reduces costs of repair and maintenances
- ... increases the duration of the media
- ... increases the availability of financial
- ... save the lubricant
- ... respects the environment
- ... it pays off in a short time

Centralized Lubrication System Ciaponi ...

- ... save costs more than cost
- ... work in a completely automatic way
- ... they are robust and reliable
- ... do not fear the most difficult working conditions
- ... do not require virtually maintenance



Cost reduction



To protect the

