

**INSTALLATION AND MAINTENANCE MANUAL
FOR MPP STANDARD AUTOMATIC WASHING PANEL**



TUV HELLAS



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CONTENT

CONTENT	2
1. INTRODUCTION.....	3
2. SAFETY RULES AND GENERAL INSTRUCTIONS.....	3
3. INSTALLATION INSTRUCTIONS.....	3
ELECTRICAL CONNECTIONS	3
4. TECHNICAL SPECIFICATIONS	3
SIMPLE AUTOMATIC (PLC) WASHING PANEL.....	3
5. THE MAIN PARTS OF THE ECO WASHING SYSTEM AND THE WASHING PROCESS.....	4
6. SIMPLE AUTOMATIC PLC WASHING SYSTEM PARAMETERIZATION	6
7. WASHING PANEL ELECTRICAL DIAGRAM.....	8
.....	9
8. WARRANTY CERTIFICATE.....	10
9. NOTES.....	11
10. TECHNICAL SUPPORT.....	12
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1. INTRODUCTION

Choosing the MPP STANDARD WASHING PANEL of Milkplan, you chose a perfect product, made by people who perfectly know the secrets of cleaning. The panel is constructed using the most modern equipment and technology, all in accordance to the European accepted standards

2. SAFETY RULES AND GENERAL INSTRUCTIONS

During the designing and the construction of this machine, we have spared no effort to make your job more efficient and secure. However, caution is always important. Prevention is better than cure.

This machine is designed and constructed according to the Annex V directive 98/37 EU and the EN 292-1, EN 292-2, EN 294, EN 349, EN 418, EN 1672-1, EN 1672-2, EN 60204-1 standards.



This exclamation point in the yellow, equilateral triangle alerts the user about danger and measures to be taken to avoid risks, injuries and damages. Upon seeing it, you are highly advised to pay attention to the warning and be careful about risks.



An instruction follows this symbol.

3. INSTALLATION INSTRUCTIONS

ELECTRICAL CONNECTIONS

An authorized electrician must work on the electrical installation that will power the washing panel.

A single-phase washing panel must be connected to an electrical installation of 110-220V, 60Hz with a separate ground conductor, whereas a three-phase washing panel tank must be connected to an electrical installation of 220V, 60Hz.



ATTENTION! For your protection, the washing panel must be provided with a grounded protective conductor, of suitable capacity, to ensure the proper grounding of the machine.

The diameter of the cables must be chosen according to the electrical power of the washing panel. The cable must be straight, without coils (twisted extensions of electrical cable, etc.).

The washing panel must be connected to a separate, fused electrical line, with a K type fuse or a micro-automatic for electric motors in the electrical panel.



ATTENTION! The power line of the washing panel should be made of a single cable of sufficient dimensions, without any connections or terminal connectors. The manner of wiring the washing panel must ensure that only authorized stuff or trained persons can approach the power lines and the electrical cables. **DANGER OF ELECTRIC SHOCK!**

Once performed the electrical connection, measure the voltage fluctuation by using a voltmeter. While the washing panel is operating, the voltage drop must not be greater than 3% of the nominal one.



High voltage drop at the power supply line may cause serious damage to the electrical equipment, which is not covered by the guarantee.

NOTE: Wrong connections at the terminal blocks or the socket plugging can also cause voltage loss.

4. TECHNICAL SPECIFICATIONS

SIMPLE AUTOMATIC (PLC) WASHING PANEL

Milkplan simple automatic control panel is equipped with all the necessary elements for effective washing of the milk tank:

- Manual selection of washing
- User friendly
- Effective washing in 5 cycles
- Sound alarm in case of water pump malfunction

The metal frame of the washing panel is made of stainless steel (AISI 304), secured from humidity, dirt and dust.

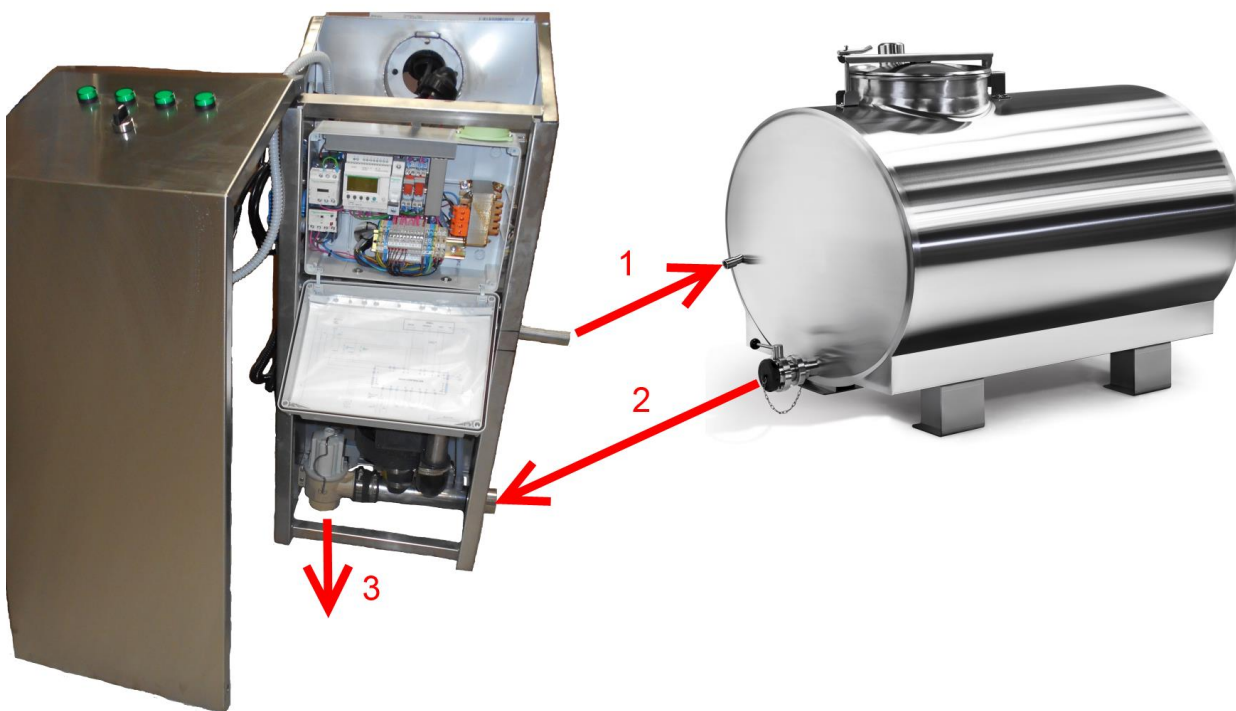
The washing procedure consists of five washing stages (pre-washing with cold water, pre-washing with hot water, washing with hot water, rinsing with hot water, rinsing with cold water), easy to use control panel, control panel frame is made of stainless steel protects all the components from humidity and dirt, selection switch for detergent /acid, water circulator pump 875 Watt, drainage valve diam. 50mm.

5. THE MAIN PARTS OF THE ECO WASHING SYSTEM AND THE WASHING PROCESS

The main parts of the washing system are:

- Electric panel with the PLC
- Water circulation pump
- Hot and cold water intake pumps
- Peristaltic pumps
- Drainage valve
- 2-position rotary switch for detergent/acid selection
- Indication lights

CONNECTION OF THE WASHING PANEL TO THE TRANSPORT TANK



1. Connect the outlet of the pump of the washing panel to the inlet of the tank with a hose of sufficient length.
2. Connect the water inlet of the washing panel to the outlet valve of the tank also with a hose of sufficient length.
3. Connect the drainage pipe to the drain valve.
4. Connect the Hot water inlet $\frac{3}{4}$ " to the hot water supply.
5. Connect the cold water inlet $\frac{3}{4}$ " to the cold water supply.

The above must be done in order to make a closed circuit between the tank and the washing panel.



As soon as you finish with water connection and you plug in the power you can use the switch located on the top of the panel to start washing.

The green lights indicate the phase at which the washing program is at that moment. When all the lights are off the washing process is finished.

- 1st light On – Cold water intake**
- 2nd light On – Hot water intake**
- 3rd light On – Water pump is working**
- 4th light On – Peristaltic pump is working**
- 1st and 2nd light On - Drainage**

DESCRIPTION OF THE WASHING PROCESS

The washing process of the tank is controlled by the PLC located in the control/washing panel and consists of 5 washing cycles.

The main parts of the control/washing panel are the electric panel with the PLC, water pump, electromagnetic valves for hot/cold water, drainage valve, 2 peristaltic pumps, switch for choosing acid/detergent cycle and a 2 way switch for selecting Washing process or to turn it off.

Using the selector (rotary switch) the user can start the washing operation or to turn off the tank.

The washing process consists of 5 independent cycles.

1st Cycle prewashing with cold water

In the first phase of the washing cycle the washing controller activates the COLD water pump and starts pumping water in to the tank for the preset time duration. After the completion of the preset time the washing controller goes into the second phase which is the activation of the water circulation pump and the agitator which are responsible for the proper cleaning of the inner walls of the tank. As is in the first phase washing is also controlled by the preset time. In the third and final phase the drainage valve is activated for preset time duration to empty the tank of the water.

2nd Cycle prewashing with hot water

In the first phase of the washing cycle the washing controller activates the HOT water pump and starts pumping water in to the tank for the preset time duration. After the completion of the preset time the washing controller goes into the second phase which is the activation of the water circulation pump and the agitator which are responsible for the proper cleaning of the inner walls of the tank. As is in the first phase washing is also controlled by the preset time. In the third and final phase the drainage valve is activated for preset time duration to empty the tank of the water.

3rd Cycle main washing

The user must choose if detergent or acid will be used during the main washing. The selection is done using the 3-position selection switch which is located on the left side of the panel. The recommended w detergent/acid ratio for the washing is 3/1. During the first phase not only the hot water pump is activated but also the peristaltic pump of either detergent or acid accordingly to the selection switch. Both water and detergent/acid are pumped into the tank for a predetermined time set in the washing controller. The rest 2 phases are exactly identical to the previous cycles.

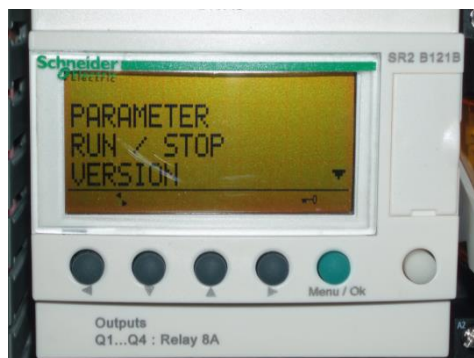
4th Cycle rinse with hot water

Same as 2nd Cycle

5th Cycle rinse with cold water

Same as 1nd Cycle

**6. SIMPLE AUTOMATIC PLC WASHING SYSTEM
PARAMETERIZATION**



BUTTONS					
•	•	•	•	•	○
◀	▼	▲	▶	MENU / OK	

OPERATION	BUTTON
STOP WASHING	◀
START WASHING	▶

By changing the parameters T2, T3, T4, T7, TD, TE is possible to change the time duration of the washing phases for each cycle.

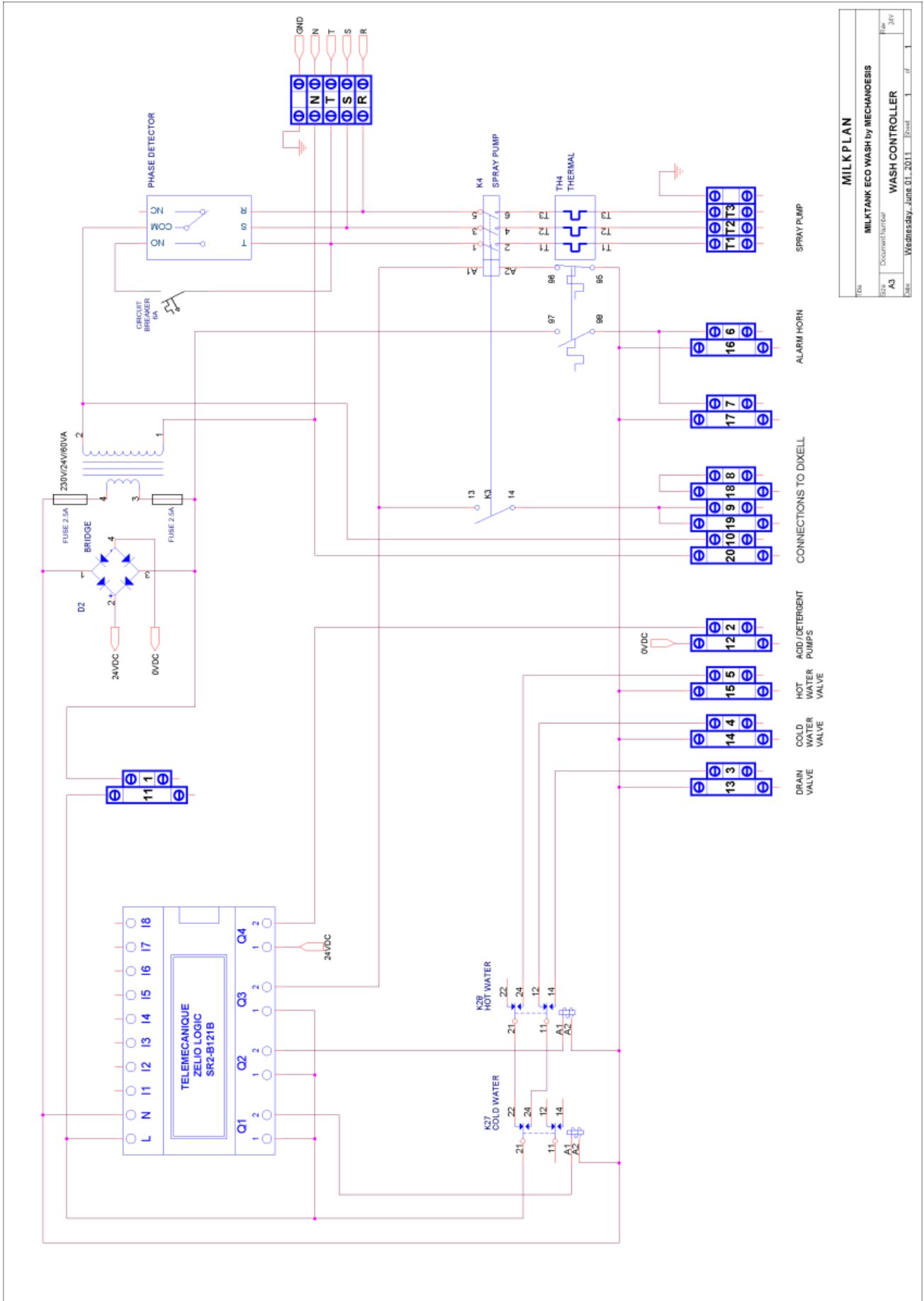
PLC MENU NAVIGATION

OPERATION	BUTTON
ENTER MENU	MENU / OK
SELECT THE COMMAND "PARAMETERS"	▼ ▲
CONFIRM	MENU / OK
SCROLL THROUGH PARAMETER	▼ ▲
CHOOSE PARAMETER TO ADJUST	◀
ADJUSTING THE PARAMETER	▼ ▲
CONFIRM THE NEW VALUE	◀
CONFIRM	MENU / OK
CONFIRM	MENU / OK

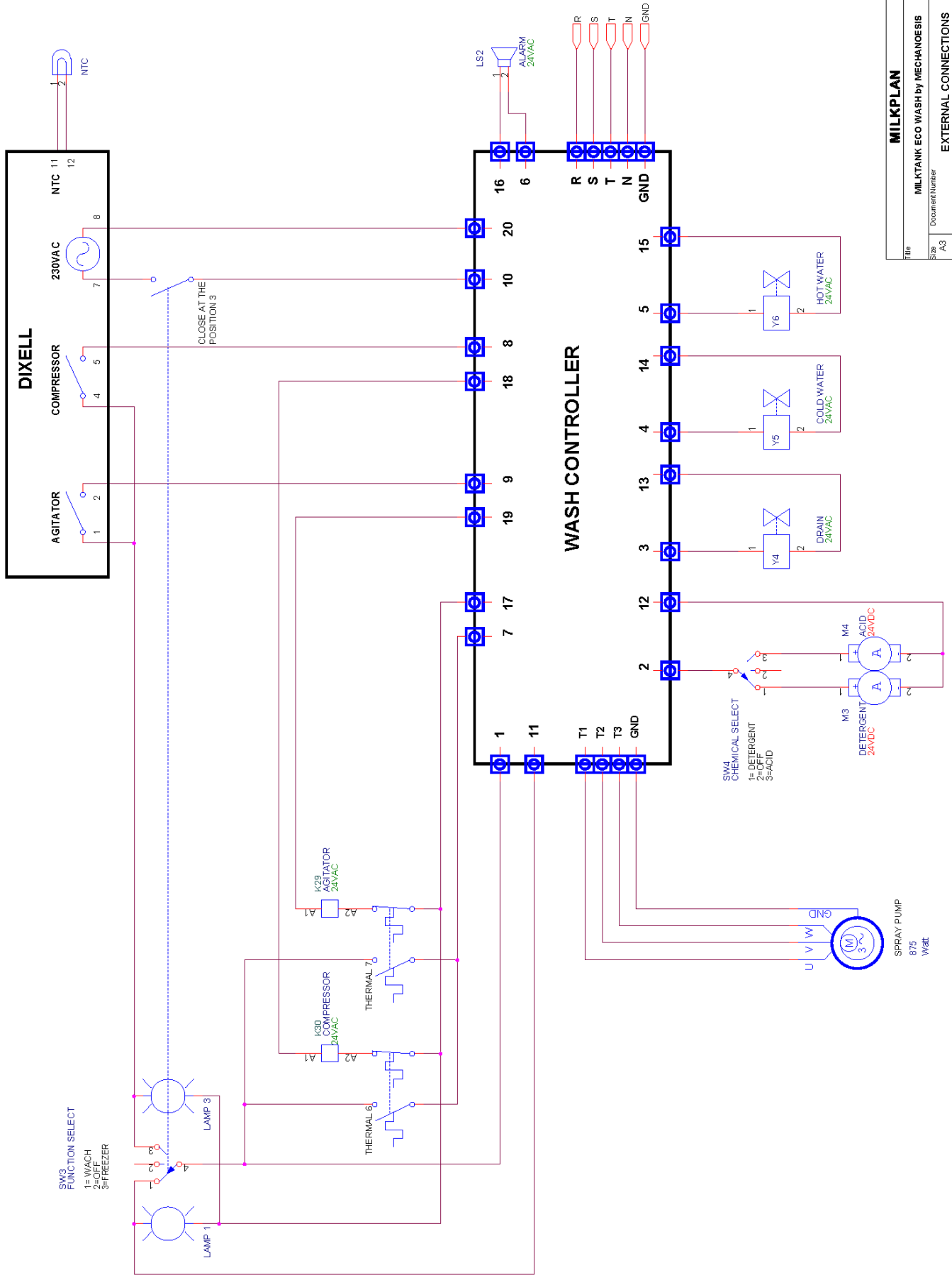
PARAMETERS OF THE WASHING PROCESSES

PARAMETERS		T2	T3	T4	T7	TD	TE
1 ST CYCLE	COLD WATER	T2					
	WATER CIRCULATION						TE
	DRAINAGE					TD	
2 ND CYCLE	HOT WATER		T3				
	WATER CIRCULATION						TE
	DRAINAGE					TD	
3 RD CYCLE	DETERGENT/ACID			T4			
	HOT WATER		T3				
	WATER CIRCULATION				T7		
	DRAINAGE					TD	
4 TH CYCLE	HOT WATER		T3				
	WATER CIRCULATION						TE
	DRAINAGE					TD	
5 TH CYCLE	COLD WATER	T2					
	WATER CIRCULATION						TE
	DRAINAGE					TD	

7. WASHING PANEL ELECTRICAL DIAGRAM



MILK PLAN	
Title	MILK TANK ECO WASH by MECHANESIS
Size	A3
Document Number	WASH CONTROLLER
Date	Wednesday, June 01, 2011
Printed	1 of 1



MILKPLAN	
File	MILKTANK ECO WASH by MECHANESIS
Size	A3
Document Number	Rev 24V
Date	Monday, February 21, 2011 11:01:01
Sheet	1 of 1
EXTERNAL CONNECTIONS	

8. WARRANTY CERTIFICATE

Με την παρούσα ο κατασκευαστής εγγυάται την καλή λειτουργία του μηχανήματος που αναφέρεται παρακάτω:

ΗΜΕΡΙΔΗΣ ΜΑΚΡΟΠΟΥΛΟΣ MILKPLAN A.E.
ΕΞΟΠΛΙΣΜΟΙ ΒΙΟΜΗΧΑΝΙΩΝ ΓΑΛΑΚΤΟΣ &
ΚΤΗΝΟΤΡΟΦΙΚΩΝ ΜΟΝΑΔΩΝ
3ο χλμ. Λαγκαδα-Κολχικού
Θεσσαλονίκη 57200 Τ.Θ. 212
Τηλ/fax : 23940 20400



The manufacturer warrants this product as being free of defects in material, design and workmanship:

IMERIDIS MAKROPOULOS MILKPLAN S.A.
DAIRY AND FARMING EQUIPMENT
3RD KM LAGADAS - KOLHIKO NAT. ROAD
GR 572 00, P.O.BOX 212
Tel & Fax: +30 23940 20400

ΕΓΓΥΗΣΗ NO / WARRANTY NO:

Στοιχεία πελάτη / Client data

Name:

Address:

Telephone:

VAT No:

Receipt of trade:

City:

Internal revenue service:

Date of trade:

End of warranty:

Machine type:

Serial number:

The company provides the machine with one-year (1) warranty of good operation.

The machine has been examined at the manufacturing plant and confirms that it operates normally and does not have any problems.

FOR MILKPLAN S.A.

(The authorized dealer-stamp and signature)

THE PURCHASER

THE WARRANTY IS NOT VALID IF:

- A non-authorized technician has serviced the machine.
- The machine appears damaged from a fall or strikes etc.
- Flood, excessive moistness or fire has caused the damage.
- The machine malfunctions caused by low voltage, wrong electrical installation (Voltage 110V± 3%, 60Hz).

10. TECHNICAL SUPPORT

For further information for the technical support, contact the **MILKPLAN** service:

MILKPLAN S.A. IMERIDIS – MAKROPOULOS
DAIRY AND FARMING EQUIPMENT S.A
3RD KM LAGADAS - KOLHIKO NAT. ROAD
GR 572 00, P.O.BOX 212
sales@milksplan.com
www.milksplan.com

Before you contact our company, find the metal plate that has the serial number of the milk tank and write it down so as to have it when you are asked for it.

Manual editing – Copyright

This manual is part of the research into the requirements that should be fulfilled according to the following standard: European Safety Regulations For European machines, 98/37/EEC. According to this research, the machine could have the CE mark.

This manual is a part of the **MPP STANDARD WASHING PANEL** and it must be available to anyone who wishes to operate, maintain, repair or control the milk tank function.

Do not expose this manual to water, moisture and dust or to extreme temperatures. Keep it near the machine.

In case of damage or loss, ask for a copy from the manufacturer or the Authorized Service Center.



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