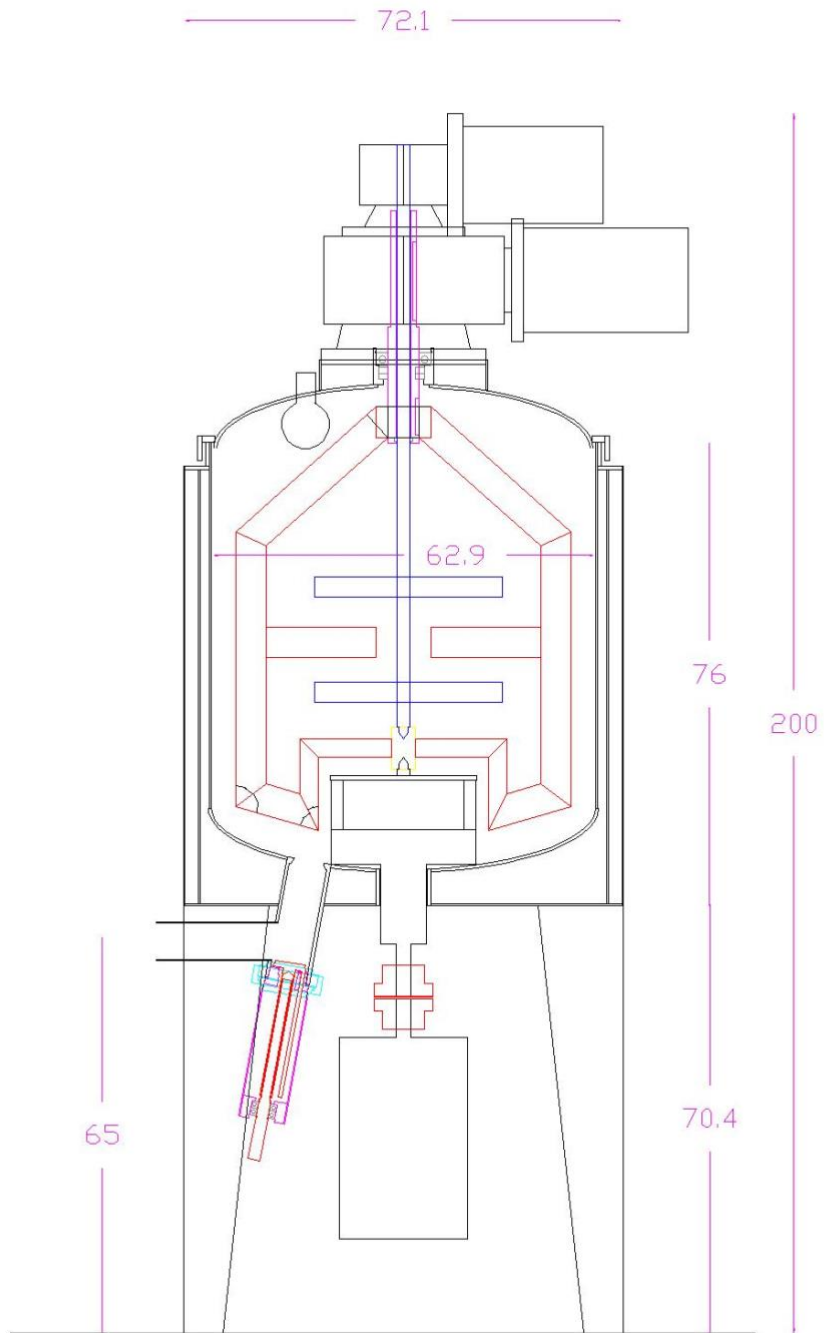


CREAM HOMOGENIZER

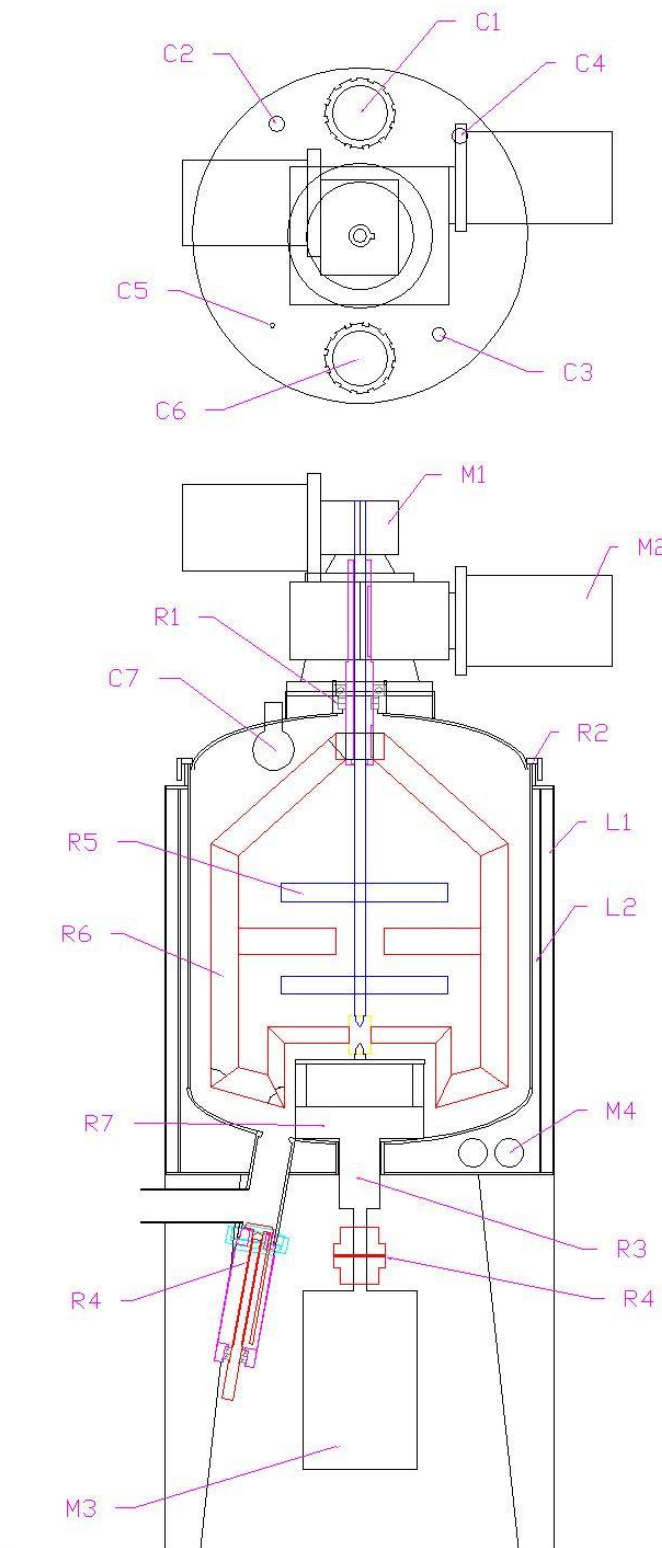
- **GENERAL SPECIFICATIONS:**

- Machine is a cream homogenizer with three mixers
- Capacity: ~200 Liters
- All made from Stainless steel 316
- Main power: 380 V (3phases + 1 Neutral + Earth)
- Air pressure: 6-7 bars
- Homogenizer controlled from a control panel located undependably beside it.
- All parts should be cleaned, greased and maintained permanently

- MAIN DIMENSIONS:**



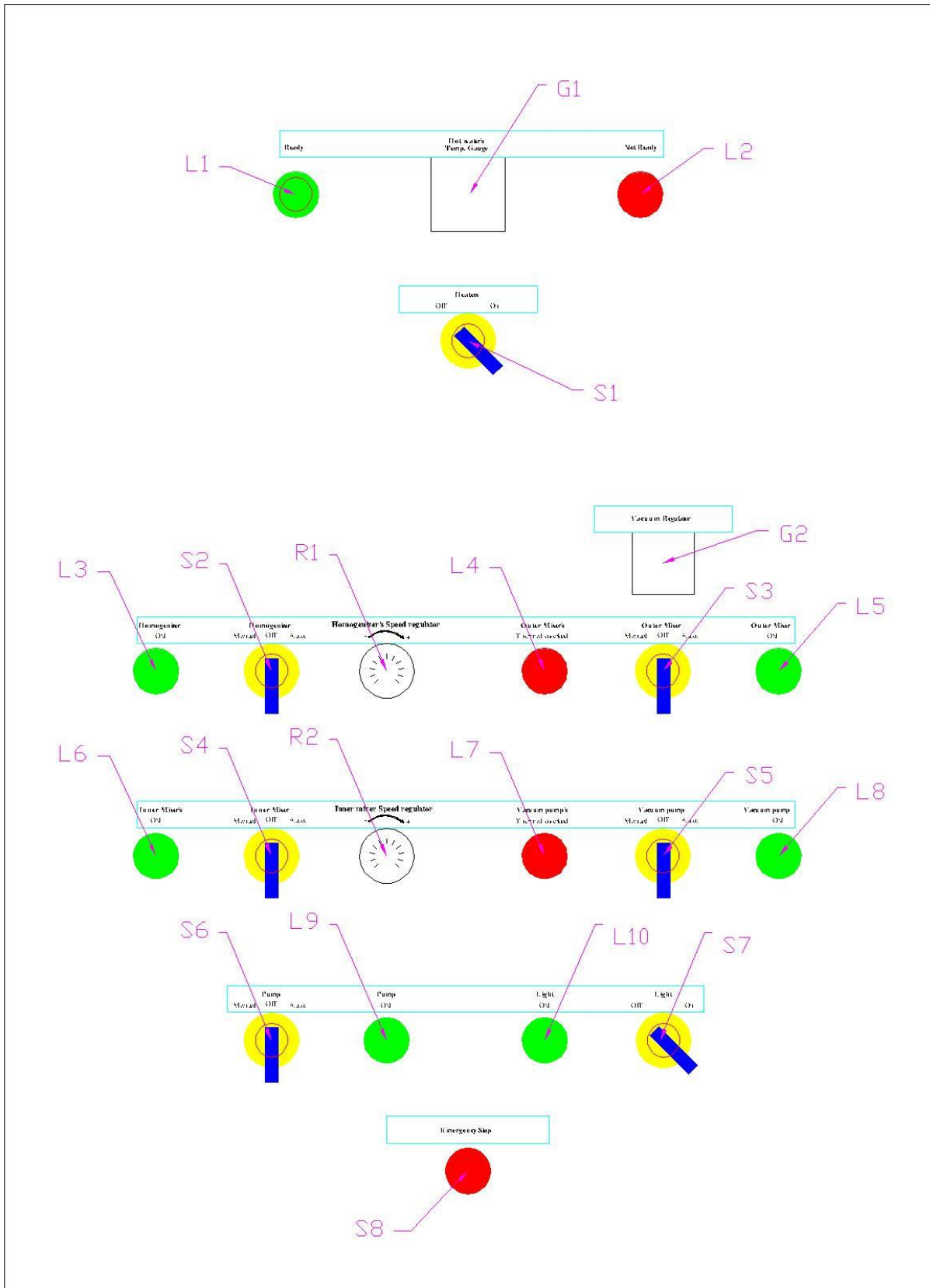
● **MAIN PARTS:**



- C1- Lamp to lighten the tank of the homogenizer
- C2- Products inlet 1 inch with ballvalve
- C3- Add-on products inlet with conical tank & ballvalve
- C4- CIP inlet
- C5- Mechanical Vacuum gauge (0 till -760 mmHg)
- C6- Sight glass
- C7- CIP ball used to clean the tank
- M1- Inner mixer's drive motor: SITI Type T80BC4
 - Ins.Cl.F
 - 1 kw
 - 220/380V
 - 4.0/2.3A
 - 1400RPM
 - Gearbox: SITI MU 63 1.5
 - Ratio: 40/1
- M2- Outer mixer's drive motor: SITI Type T90L4
 - Ins.Cl.F
 - 1.5 kw
 - 220/380V
 - 6.8/3.9 A
 - 1420RPM
 - Gearbox: Varvel SRT110562442
 - Ratio: 56/1
- M3- Homogenizer's drive motor: SIEMENS
 - 4kw
 - 220/380V
 - 14.3/8.2A
 - 1440RPM
- M4- Electrical heaters, 3Phases, quantity 2, 4500watts each, 1 1/2"
- R1- System to prevent the vacuum from going out the tank containing:
 - Bearing 90/50/10, Quantity 1
 - Air seal 72/50/10, Quantity 2
- R2- Joint located in the cover 20x10mm black with 2 holes into its length
- R3- System of rotation of the homogenizer containg:
 - Bearing 62/30/16, Quantity 2
 - Air seal 62/30/8, Quantity 2
- R4- Coupling between the motor & the homgenizer's system
- R5- Inner mixer's blade
- R6- Outer mixer's blade with Teflon scrapers on its sides

- R7- Homogenizer's mixer
- R8- Manual rotatif valve to empty the tank, 2" containing an o-ring
39/10 on the upper part & seals 30/20/7 in the middle
- L1- Insulation layer
- L2- Heating water layer
- P1- Pneumatic pistons ORSTA 80x800 reduced to 80x700mm
- On the top cover is located a PRL18 sensor which will keep safe the person working on this machine in the way that when the top cover is open, the red light in the sensor will be off & so nothing will operate in the machine

• CONTROL PANEL:



- L1- Lights when the temperature of the heating water reaches the preset one
- L2- Lights when the temperature of the heating water doesn't reach the preset one
- L3- Lights when the homogenizing mixer is ON
- L4- Thermal error, lights when an error occurs in the outer mixer's thermal overload relay
- L5- Lights when the outer mixer is ON
- L6- Lights when inner mixer is ON
- L7- Thermal error, lights when an error occurs in the vacuum pump's thermal overload relay
- L8- Lights when the vacuum pump is ON
- L9- Lights when the Screw pump is ON
- L10- Lights when the light is ON

- S1- This switch is used to turn the heaters of heating water ON & OFF
- S2- This switch is used to decide if you want the homogenizer to operate automatically (right position) which means that the motor couldn't turn if the top cover is opened, or to operate manually (left position) which means that you may turn the mixer whenever you want. The left position must not be switched in the normal operation of the tank
- S3- This switch is used to decide if you want the outer mixer to operate automatically (right position) which means that the motor couldn't turn if the top cover is opened, or to operate manually (left position) which means that you may turn the mixer whenever you want. The left position must not be switched in the normal operation of the tank
- S4- This switch is used to decide if you want the inner mixer to operate automatically (right position) which means that the motor couldn't turn if the top cover is opened, or to operate manually (left position) which means that you may turn the mixer whenever you want. The left position must not be switched in the normal operation of the tank
- S5- This switch is used to decide if you want the vacuum pump to operate automatically (right position) or manually (left position) which means that you may turn the pump whenever you want. The left position must not be switched in the normal operation of the tank
- S6- This switch is used to decide if you want the screw pump to operate automatically (right position) which means that the pump wouldn't turn if the tank of the filling machine is full, or to operate manually (left position) which means that you may turn the mixer whenever you want. The left position must not be switched in the normal operation of the tank
- S7- This switch is used to turn the light ON & OFF

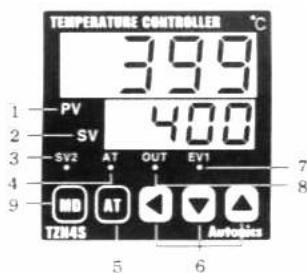
- S8- It's the emergency push button that should be pressed when something wrong happened during the operation of the machine. To release, this button should be turned in clock-wise direction.



G1- It's the temperature gauge, here are some informations about it:

Temperature controller: TZN4S-14R:

- ✓ Temperature PID
- ✓ 4 digits
- ✓ Size: DIN W48 x H48mm
- ✓ Sub output: Event 1 output
- ✓ 100-240VAC, 50/60Hz
- ✓ Allowable voltage range: 90 to 110% of rated voltage
- ✓ Power consumption: Approx. 5VA
- ✓ Relay output
- ✓ Display method: 7Segment LED Display
- ✓ Input sensor: J(IC)H
- ✓ Display accuracy: $\pm 0.3\%$ based on f.s or 3°C Max.

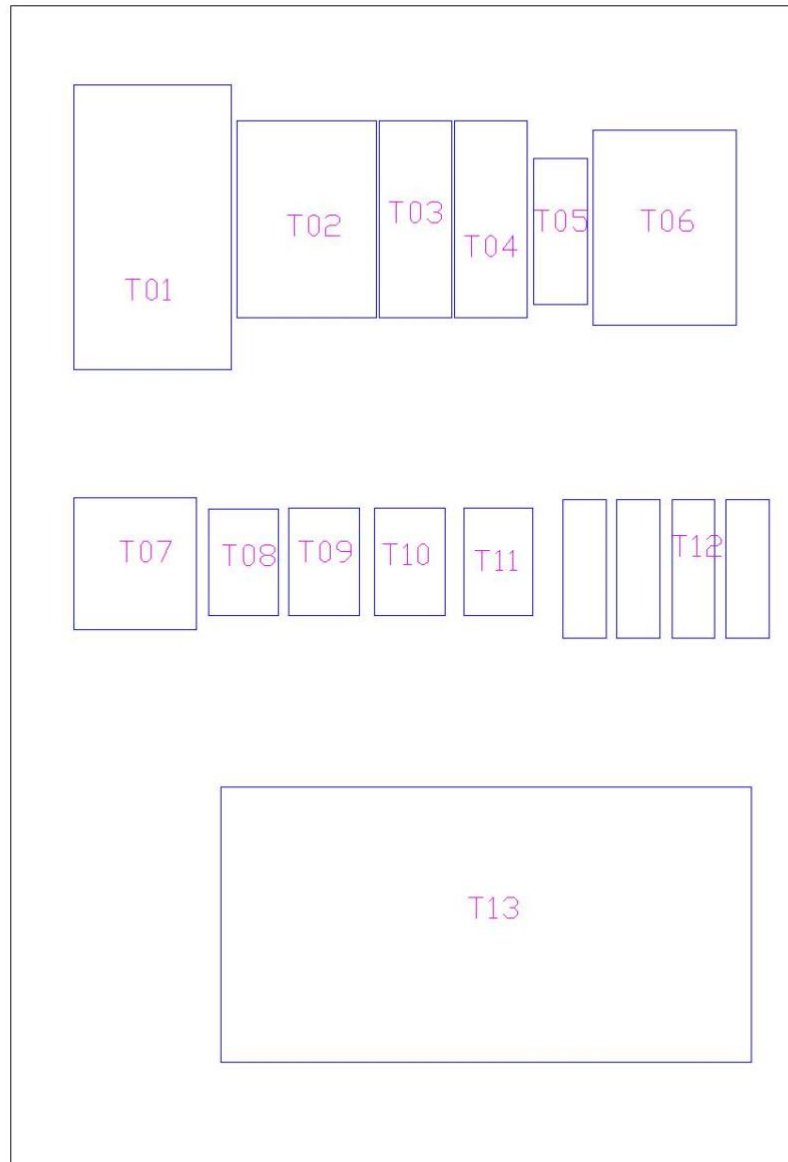


- 1- PV: Display processing value
- 2- SV: Display setting value
- 3- SV2: indicate SV2 operation
- 4- AT: Indicate auto tuning operation
- 5- AT Key: The mode key to execute auto tuning function.
- 6- Setting keys
- 7- EV1: Indicate event 1 output
- 8- Out: Indicate output
- 9- MD Key: Mode key

To change the value of the preset temperature all you have to do is to press left button of the settings key and than change the value by pressing up & down. When finish press button 9 to store your choice

- G2- Vacuum Gauge: it's used to control the vacuum into the tank. When the vacuum reaches the higher preset value of vacuum the pump will stop automatically & wouldn't restart until the vacuum reaches the value preset for the vacuum pump to re-operate

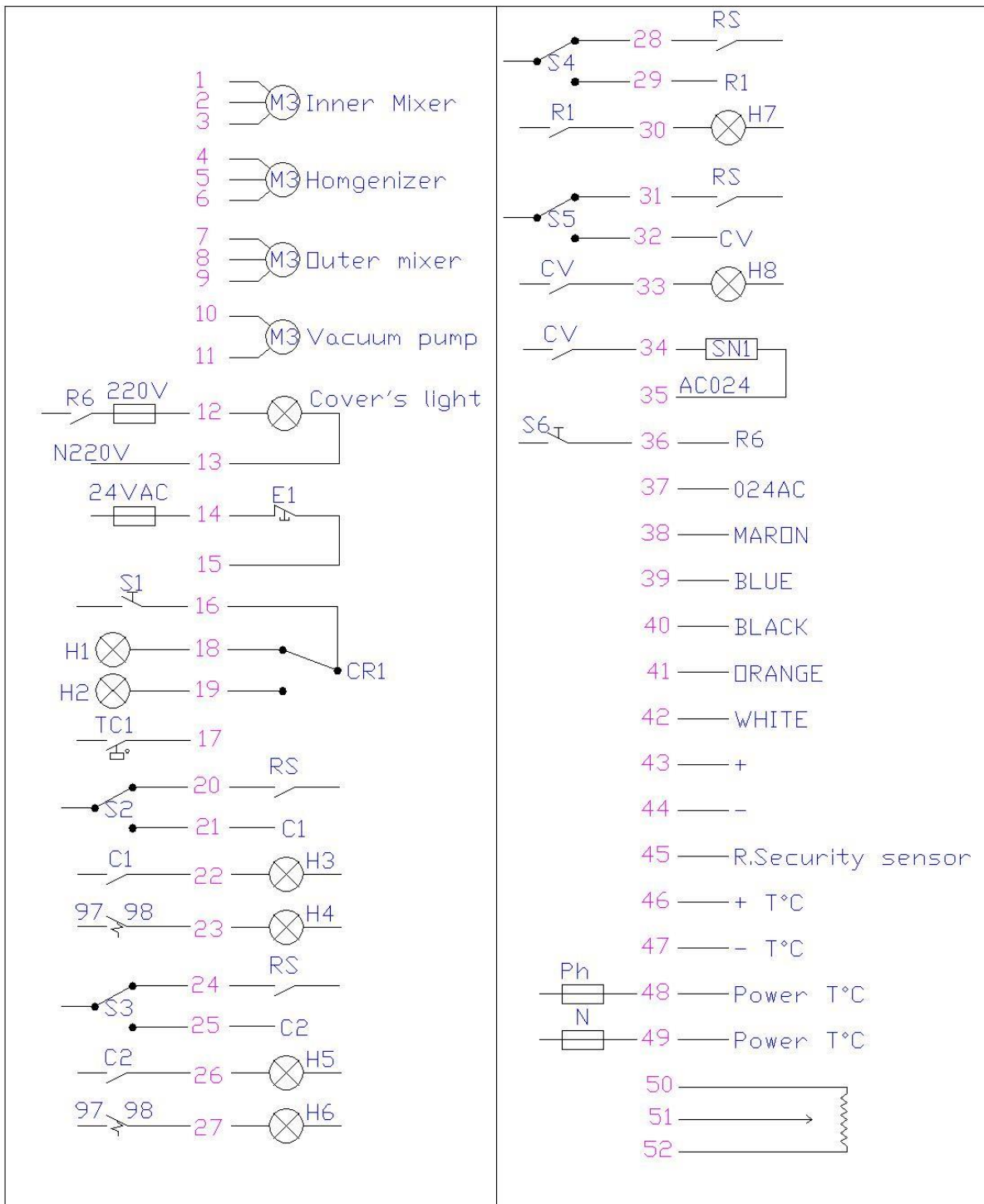
• **INSIDE CONTROL PANEL:**




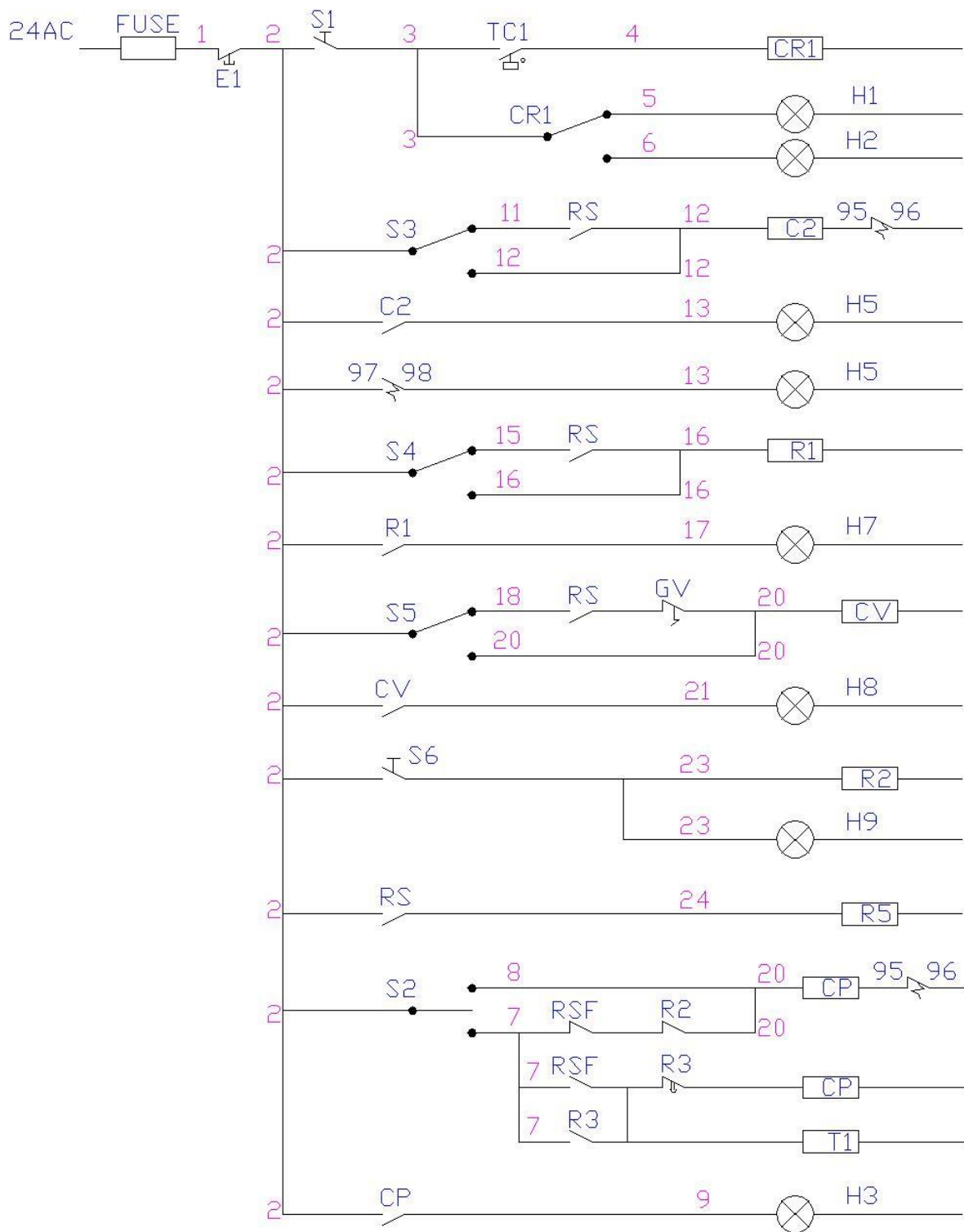
- T01- Frequency regulator used to regulate the speed of rotation of the inner mixer. Adleepower 1.5HP, Mono/3ph


- T02- Circuit braker for the main power SIEMENS
- T03- Circuit braker for the inner mixer's inverter SIEMENS
- T04- Thermal braker for the homgenizer's inverter
- T05- Fuses
- T06- Transformer 220-24V, 5A
- T07- Contactor for the heaters MITSUBISHI
- T08- Screw pump's contactor MITSUBISHI
- T09- Outer mixer's contactor MITSUBISHI
- T10- Vacuum pump's contactor MITSUBISHI
- T11- Power for the vacuum gauge PA10WN
- T12- Relays
- T13- Frequency regulator used to regulate the speed of rotation of the homogenizing mixer. Adleepower 5.5HP, Mono/3ph

• Electrical Data:



Itemref.	Quantity	Title/Name, designation, material, dimensions etc
GENERAL MANUFACTURING & MAINTENANCE info@gmm-nakad.com , www.gmm-nakad.com Tel: 961 111 887947 , Mobile: 961 131 341929 Roumieh - Beirut - Lebanon P.O. Box: 71146 Antelias Fax: 961 111 882561 - -		
		
Homogenizer 200L- Electrical Schema 1 (Connectors)		
Drawn by:		Rev. #: View: 3rd angle proj. Date of issue: 28-02-2007
Issued:		Drawing #: Scale: Type:
Client name: DR. JOE NASR		Dim.: Filename: 05-02-03-100 Size: A4
		Qty:
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GENERAL MANUFACTURING & MAINTENANCE info@gmm-nakad.com , www.gmm-nakad.com Tel: 961 11 887947 , Mobile: 961 131 341929 Roumieh - Beirut - Lebanon P.O. Box: 71146 Antelias Fax: 961 11 882561		
<h3 style="text-align: center;">Homogenizer 200L- Electrical Schema 2 (Connectors)</h3>		
Drawn by:		Rev. #: View: 3rd angle proj. Date of issue: 28-02-2007
Issued:		Drawing #: Scale: Type:
Client name: DR. JOE NASR		Dim.: Filename: 05-02-03-100 Size: A4
		Qty:

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LEGEND

- E1- Emergency Stop Button
- S1- Heaters switch ON/OFF
- S2- Cream Pump's switch ON/OFF/ON
- S3- Outer mixer's switch ON/OFF/ON
- S4- Inner mixer's switch ON/OFF/ON
- S5- Vacuum pump's switch ON/OFF/ON
- S6- Light on the cover switch ON/OFF
- TC1- Temperature gauge
- H1- Heating water temperature not ready
- H2- Heating water temperature ready
- H3- Cream pump light ON
- H5- Outer mixer's light ON
- H7- Inner mixer light ON
- H8- Vacuum pump light ON
- H9- Light on the cover light ON
- CR1- Heaters' contactor
- C2- Outer mixer's contactor
- CV- Vacuum pump's contactor
- CR1- Cream pump's contactor
- RS- Relay of the security sensor PRL18 on the tank's cover
- RSF- Relay of the float sensor located on the filler's tank
- R1- Relay of the inner mixer related to the 1.5HP inverter
- R2- Relay of the light on the top cover
- R3- Relay of the cream pump
- T1- Timer of the cream pump

Itemref.	Quantity	Title/Name, designation, material, dimensions etc			
GENERAL MANUFACTURING & MAINTENANCE info@gmm-nakad.com , www.gmm-nakad.com Tel: 961 (0) 887947 , Mobile: 961 (0) 341929 Roumieh - Beirut - Lebanon P.O. Box: 71146 Antelias Fax: 961 (0) 882560 - - 		Homogenizer 200L- Electrical Schema 3 (LEGEND)			
		Drawn by:	Rev. #:	View: 3rd angle proj.	Date of issue: 28-02-2007
		Issued:	Drawing #:	Scale:	Type:
		Client name: DR. JOE NASR			Size: A4
			Qty:		
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