

# CIP SYSTEM



## INSTRUCTION MANUAL

**TMXFLOW<sup>®</sup>**  
let it flow

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# 1. GENERAL INFORMATION

## 1.1 INFORMATION

CIP (Cleaining in Place) is an automatic cleaning method performed by circulating rinse water and detergent solution in the production line without the need to disassemble the machinery and equipment.

CIP is a critical process hygiene aspect that helps ensure the health and safety of personnel. It provides significant advantages for manufacturers as it improves product quality and facility hygiene by ensuring that equipment, pipelines and valves are cleaned at lower costs during operation.

# 2. SAFETY INSTRUCTION

## 2.1 SAFETY INSTRUCTION

It is important to follow the basic rules given in the user manual during installation. Therefore the user must read these instructions before installation and operation. Please comply with all safety regulations

## 2.2 DANGERS THAT MAY RESULT FROM VIOLATION OF SAFETY RULES

Failure to comply with safety regulations may pose a danger to the user.  
Failure to comply with safety regulations can cause the following dangers:

- The user may be exposed to electrical and mechanical effects.
- Important functions of the CIP system may be impaired

# 3. DESCRIPTION OF PRODUCT AND MATERIALS

## 3.1 PRODUCT INFORMATION

The centrifugal pump of the system can pump a maximum of 50000 liters (50m<sup>3</sup>) of water per hour. The system is a device with a width of 1300mm, a length of 1500mm and a height of 1500mm.



Number	Explanation
1	1 in the system. It has a 300 liter walled (insulated) tank.
2	There is 1 centrifugal pump in the system.
3	In the system, 1 piece there is a 4kw engine.
4	There is 1 stainless control panel in the system.
5	The system, chassis and bodywork are made of stainless material.
6	There are 2 rotating wheels in the system.
7	In the system, 2 units. There are wheels with brakes.
8	There are 4 butterfly valves that can be opened and closed depending on the way the system works.
9	Filter and plumbing line

## 4. INSTALLING AND OPERATING THE PRODUCT

### Step 1

The system must be properly connected from the outlet on the pump discharge line to the line to be cleaned.

### Step 2

It must be ensured that there is sufficient liquid in the tank and that it passes the liquid level float.

### Step 3

Set the desired temperature set value via the digital controller

### Step 4

Turn on the heat resistor switch and wait for it to reach the required temperature and deactivate the resistor.

### Step 5

Turn on the pump and start the prewash process.

### Step 6

After adding the cleaning agent (caustic, alkali, acid) with water in a certain ratio, operate the heat resistance to the desired temperature to prepare the second circulation.

### Step 7

2. turn on the pump to start circulation

### Step 8

For the final rinse, fill the tank with water and turn on the resistance until it reaches the desired temperature.

### Step 9

Turn on the pump for the final rinse.

## 5. EMERGENCY SHUTDOWN OR POWER OUTAGES



When a power outage occurs, turn off the system from the panel.

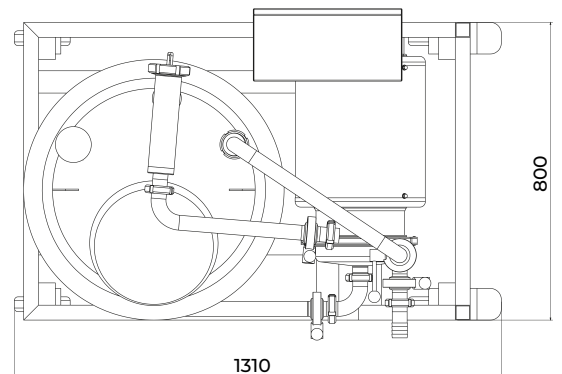
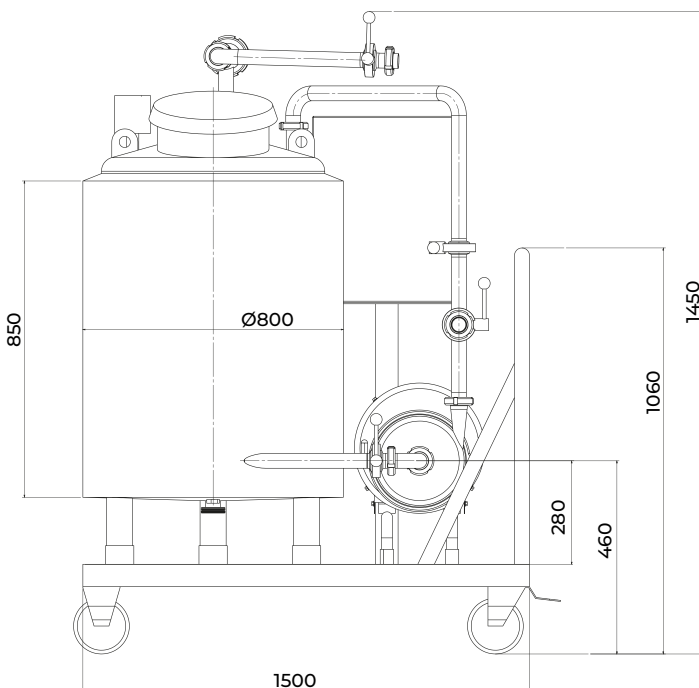


To stop the system in an emergency situation, press the emergency stop button shown in the picture below.



When a malfunction occurs in the system, cut off the mains power from the system panel.

## 6. TECHNICAL DIMENSIONS



# 7. VISUAL PRESENTATION

## Control Panel

Control board main screen shot



## Digital Controller

Our digital controller model is Enda ET2411 series and it reads temperature with an NTC probe. It activates the resistances according to the set value and the temperature read.



## Pump On

As soon as the pump on switch is turned to the on position, the pump will start working and the washing process will begin by transmitting the heated water or acid or caustic in the tank to the system.



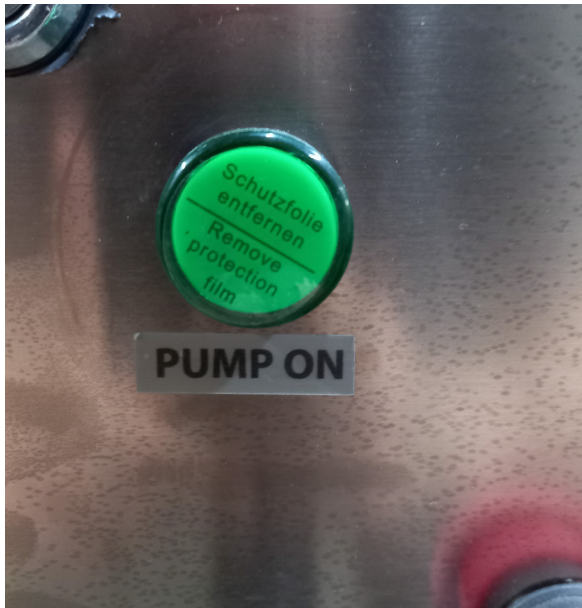
## Heater Control Switch

When the heater switch is placed in start position 1 as shown in the figure, if the set value is above the measured temperature, the heating process is carried out until the measured temperature reaches the set value. If there is not enough liquid in the tank, the heaters are disabled.



## Pump Active Indicator

The pump active lamp is active when the pump is running to indicate that the pump is working.



## Heater Control Switch

When the heater switch is placed in start position 1 as shown in the figure, if the set value is above the measured temperature, the heating process is carried out until the measured temperature reaches the set value. If there is not enough liquid in the tank, the heaters are disabled.





## 8. TECHNICAL DETAILS OF INTERNAL ELEMENTS

Part Number	Part Name	Product Quantity	Explanation
1.1	Panel	1	STAINLESS PANEL
2.2	Rail	1	Galvanized Cover, Vending Rail Perforated 2 mt. (35x7.5)
3.1	Perforated Cable Duct	1 mt.	Perforated Cable Duct (25x25)
4.2	Cable	3 mt.	NYAF Cable 0.75MM2 (15 A)
4.4	Cable	3 mt.	NYAF Cable 1.5MM2 (24 A)
4.5	Cable	3 mt.	NYAF Cable 2.5MM2 (32 A)
4.43	Cable	4 mt.	TTR Energy Cable 5x6MM2 (33 A)
5.1	Terminal Block	13	2.5mm Rail Terminal Block
5.2	Terminal Block	4	4mm Rail Terminal Block
5.7	Terminal Block	3	Stopper Terminal
5.9	Terminal Block	3	2.5mm Grounded Rail Terminal
5.10	Terminal Block	1	4mm Grounded Rail Terminal Block
6.5	Cable Ferrule		0.75mm Cable Ferrule
6.8	Cable Ferrule		2.5mm Cable Ferrule
6.10	Cable Ferrule		6mm Cable Ferrule
6.16	Cable Ferrule		0.75mm Double Entry Cable Ferrule
7.1	Engine Protection Switch	1	3x50A Motor Changeover Switch
7.4	Button	1	Q22 (0-1) Permanent 1NO+1NC Latch Button
7.5	Button	1	Q22 (1-0-2) Permanent 1NO+1NO Long Latch Button
7.7	Button	1	Q40 Emergency stop button Ø22 latching 1NC
7.8	Led	2	Q22 round pilot light - integrated LED - 230V
8.4	Sleeve	6	PG13,5 Sleeve
10.14	Automatic Fuse	1	C Type 40A 1 Phase automatic Fuse
11.12	Contactora	3	Nominal güç 11 kW Nominal akım 25A Akım 40 (1NO 1NC) (3RT2026-1AP00)
12.20	Engine Protection Switch	3	Short Circuit Breaking Capacity icu 55kA Ther. Set. Rng 13-20A (3RV2021-4BA10)
20.1	Temperature Controller	1	ENDA ET 2411