

## Sysbiotech Mobile CIP-station

In biotechnology industry, it is necessary to observe the highest standards of cleanliness and hygiene. A thorough cleaning of the equipment not only prevents cross-contamination, but also acts as a first step towards reproducible fermentation processes.

Automatization of (CIP) cleaning-in-place process ensures reproducibility of cleaning processes, thus enabling its validation in accordance with cGMP, FDA (Food and Drug Administration), and EHEDG (European Hygienic Equipment design Group) standards.

Engineering unit of Sysbiotech Company developed a fully automated Sysbiotech Mobile CIP-station for reactors, vessels and piping, which is currently available in several standard versions with its washing tanks' working volumes of 2x100 L and 2x200 L.

Constructive design and reliability of our Mobile CIP-station not only ensures the production of safe and quality products, increases their shelf life, but also reduces the costs of monitoring procedures for technological processes and products, increases the effectiveness of quality management systems, eliminating the need for operations to dismantle the removable parts and make connections in clean rooms.

Upon customer request we can provide customized solutions for Mobile CIP-stations according to your technical requirements. Our experts will help you choose a working volume of CIP tanks, automation equipment according to your needs and budget. We will test the system after assembly and carry out commissioning with training of your personnel as soon as possible.

Sysbiotech Mobile CIP-station is fully automated and can wash your equipment in accordance with the program you have selected. It can process vessels with volumes ranging from 20 L up to 3.000 L (depends on working volume of CIP tanks and configuration of processed container).

The Sysbiotech Mobile CIP-station consists of two tanks, a steam heat exchanger, two centrifugal pumps (supply and return), control and measuring equipment (temperature, pressure and conductivity sensors) and control unit.



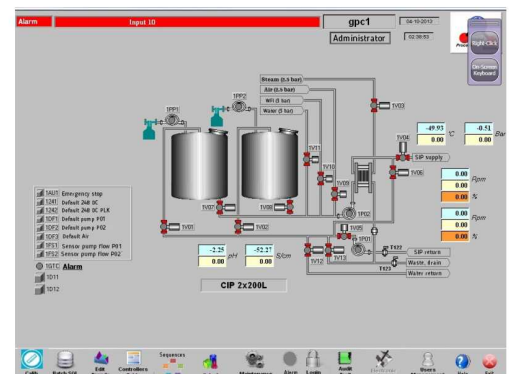
## Controlcabinet

The control unit is installed on the frame.

External dimensions for a box controller: 760x760x300 mm.

Touch screen PC and trackball keyboard is installed for comfortable operator work. The software is available in three

languages: English, French and Russian.



## Components

Power supply, switches, fuse and frequency converters for drives.

## Measurement systems

Optimized PID measurement system and transmitters to control the following functions:

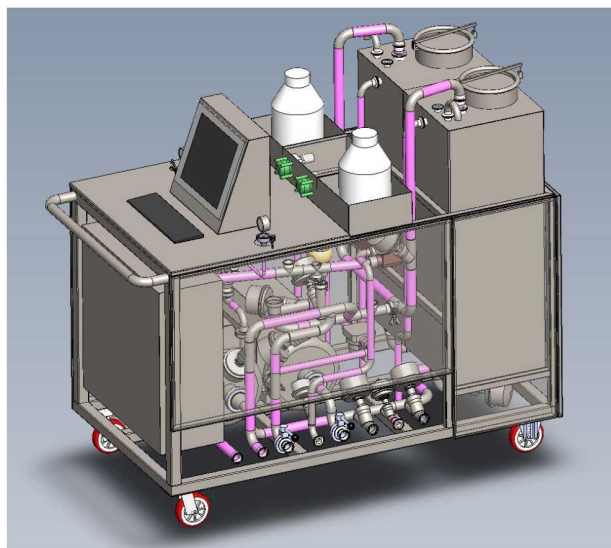
- Temperature: measurement, control and recording
- Conductivity: measurement, control and recording
- Pump speed: measurement, control and recording
- Pressure: measurement, control and recording
- pH: measurement, control and recording

## Automation:

- Touchscreen 15", industrial computer with Phoenix PLC for control process including specialized software
- Windows XP Professional operating system

CIP-station is equipped with pumps, heat exchangers, valves, sensors from leading manufacturers.

The station is equipped with an automatic system for maintaining and changing the pH of cleaning solutions to optimize the washing process and configuration of technological processes.



## Sysbiotech Mobile CIP-station Technical descriptions

Working pressure of water	Up to 3 bar
Working pressure of WFI	Up to 3 bar
Working air pressure for blowing	Up to 2,5 bar
Working pressure instrumental air	5-7 bar
Steam working pressure	Up to 2,5 bar
Working pressure water drain	Without pressure
Max temperature	+85, C
Material in contact with the product	AISI 316L