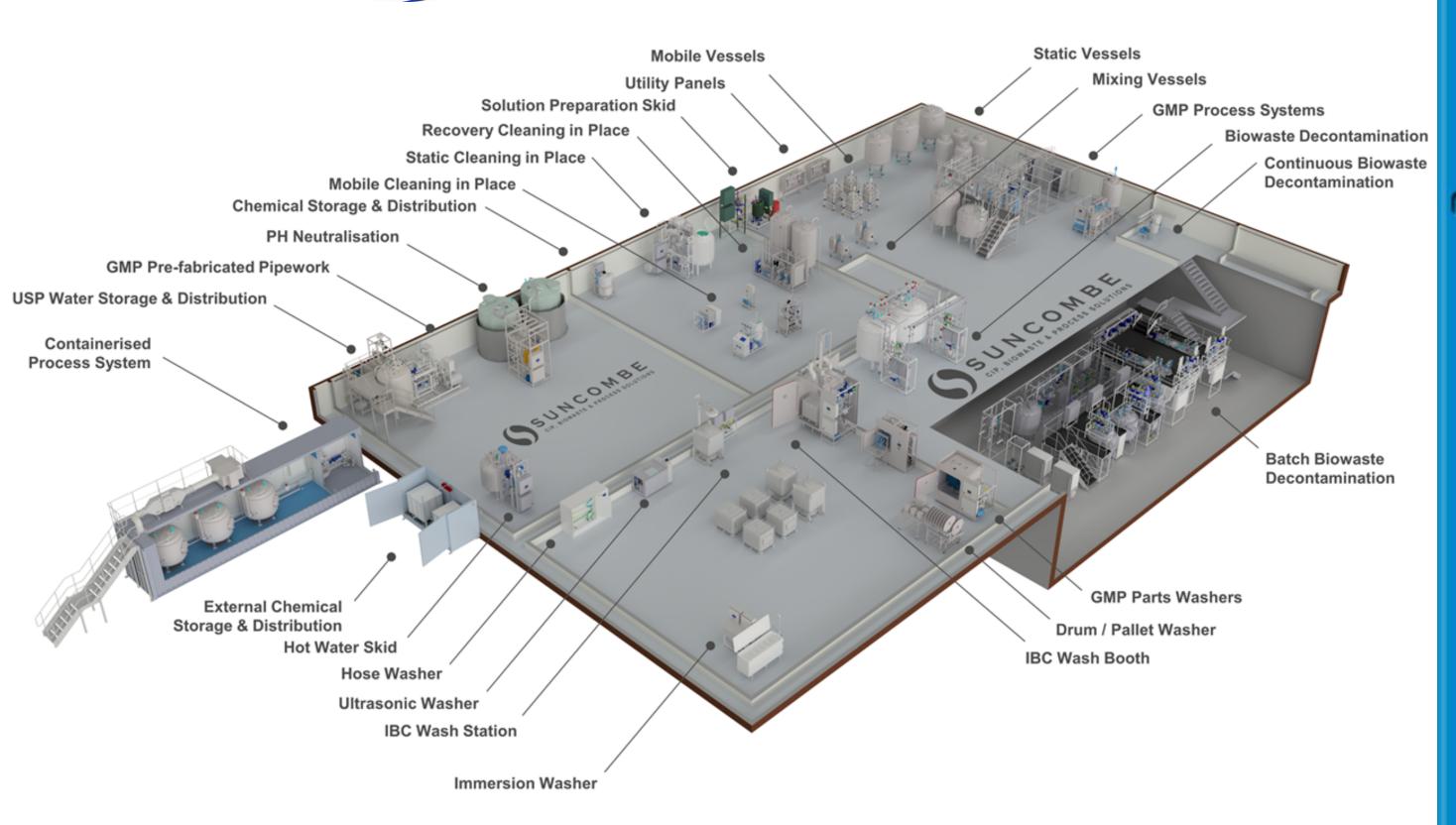


PureCIPTM 39172
Cleaning In Place System





PureCIP™ 39172 Cleaning In Place System

PureCIP™ Cleaning In Place Systems Introduction

Suncombe PureCIP™ Cleaning In Place Systems have been developed over the last 30 years for providing a robust, reliable means of supplying repeatable, validatable, controllable CIP cleaning. Every unit is specifically designed for its particular application and is developed by Suncombe CIP engineers together with the client personnel to provide the optimum cleaning system and a simple validation trail. The systems are based on standard modules with individual units custom designed and built - in-house - for your specific application. Automatically operated, the systems are used for cleaning tanks, Vessels, Vats, Fermenters, Mixers, Processors, Pipework, Valves, Isolators, Glove Boxes, Mills, Coaters, Filters, Pumps, Dryers, Tumblers, Fillers and many other applications. The standard system is designed for safe area and non-flammable fluids; ATEX versions are available if required.

Standards

Built to hygienic and sanitary standards and available to comply with ASME BPE, GAMP and 21CFR11, the PureCIP™ Cleaning In Place Systems are supplied worldwide to the Biotech, Pharmaceutical, Medical, Healthcare, Personal Care and other critical processing industries.

Automation System*

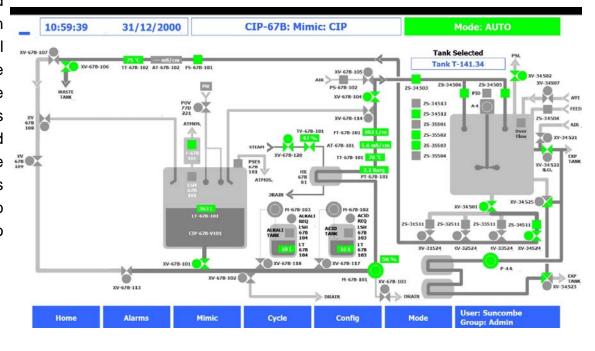
The Integrated automation is designed to be operator friendly and simple to use whilst providing flexibility and optimisation. Reliable and robust, they have been developed over the last 20 years, they encompass all elements required to provide a controllable, repeatable automatic system. A range of automation levels are available, starting Versatile automation system allows you to build your own recipes from pre-commissioned steps in any order. The variables in each step can be individually configured. The system can either be run as a single pass, so that the wash liquid goes directly to drain after CIP or can be used in recirculation mode, so that the CIP recirculates the liquid for a pre-set time.

*See Automation Datasheet for full details



Typical PureCIP™ 39172 Static Version

Typical Mimic Diagram



Cleaning Philosophy

Total loss cleaning philosophy is when the CIP fluids are used for the duration of a single clean and then discarded; this is the preferred method for critical applications. The PureCIP™s can recirculate the CIP solutions; there is an alternate method, which uses the CIP solutions as a single use and does not recirculate. This type of system is sometimes used where it is undesirable to allow the possibility of recontamination of the vessel or pipework by the recirculated product, or where installing return pipework to the CIP system is impractical. PureCIP™ systems are designed to operate either method.



Special PureCIP™ 39172 Mobile Version

Typical Manufacturing Standards*

- Sanitary Construction, fully drainable, crevice free.
- 316 stainless steel contact parts, 304 non-contact parts, T.I.G. Welding
- *See Equipment Standards Datasheet for full details

Typical Equipment*

- 316 Stainless Steel pipework
- Sanitary Centrifugal Pump
- Sanitary Valves, manual and air operated
- Steam heating
- Calibrated Instruments
- *See Equipment Standards Datasheet for full details

LEAN Technology

Adopting LEAN principles, the washers were developed to minimise utilities and wash times, whilst ensuring the safety of the operators and the efficiency of the processing. Our automated systems are configured to incorporate LEAN principles including Overall Equipment Effectiveness, Energy Lean and minimise downtime maintenance.

Testing

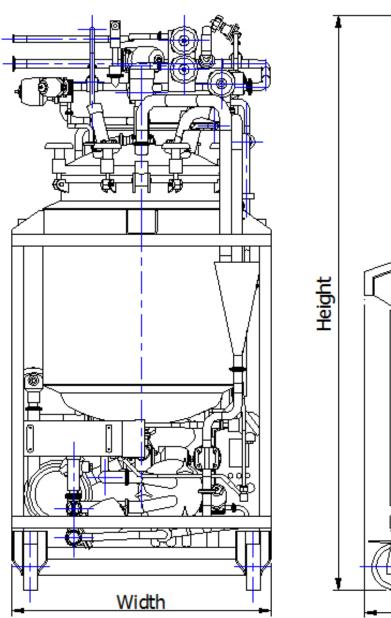
All functions of the equipment would be fully wet and dry tested and test results would be documented in the 'Pre -Factory Acceptance Test' (FAT) protocol. Following successful completion of this protocol, the client will be invited to the FAT test, where all tests can be repeated or the pre-FAT tests results can be used.

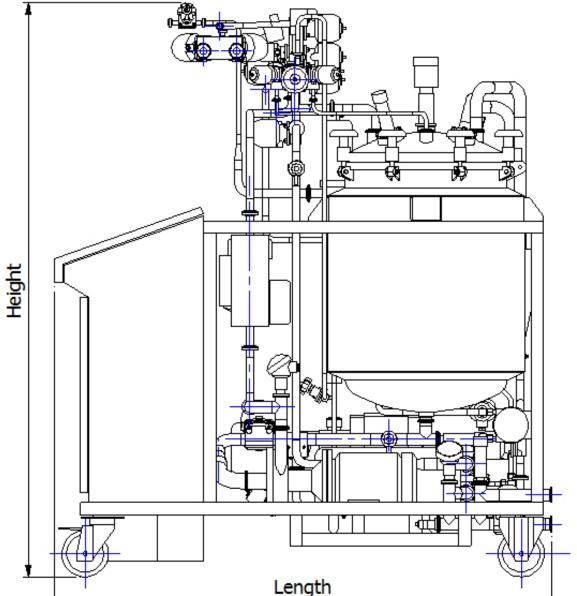
Validation/ Documentation

The lifecycle approach is adopted (DQ, FDS, HDS, SDS, FAT, SAT, IQ & OQ) with validation being key to every stage of the development process, including Factory Acceptance Testing (FAT), SAT and

| Typical Utilities | |
|----------------------|-------------------------|
| Water | 60 litres/min @ 1 bar |
| USP Water (optional) | 60 litres/min @ 1 bar |
| Air | Minimal use @ 7bar |
| Electricity | 15 kW 400Vac 3ph+n 50hz |
| Steam | 500 kg/hr @ 3 bar |
| Drain | 400 litres/min @ 1 bar |

PureCIP™ 39172 Cleaning In Place System Layout





| Part # | Dimensions | | | | | | |
|--------------------|------------------------------|----------------------------------|--------------|-------------|--------------|--|--|
| | Vessel Capacity litres | Flowrate litres per minute | Length mm | Width mm | Height mm | | |
| PureCIP™ 39172—150 | 150 | 0—60 | 1,600 | 840 | 1,850 | | |
| PureCIP™ 39172—300 | 300 | 0—80 | 2,000 | 1,000 | 2,000 | | |

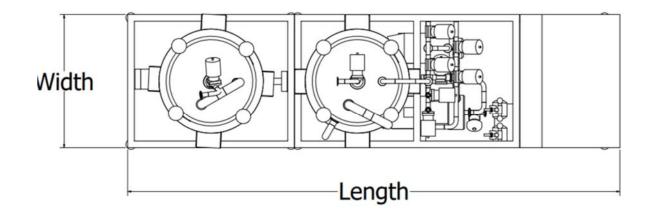
| Common Options | |
|----------------------------------|---|
| SIP/SOP Modules | Conductivity Sensors |
| Remote Control Panel | Validation Reports |
| Mobile or Static | 21CFR11 Compliance |
| 316 Stainless Steel Framework | access platform or step to provide access to vessel top |
| Drain Cooler | Electrical Heating |
| Sampling Points | |
| Ribbon Printer | |

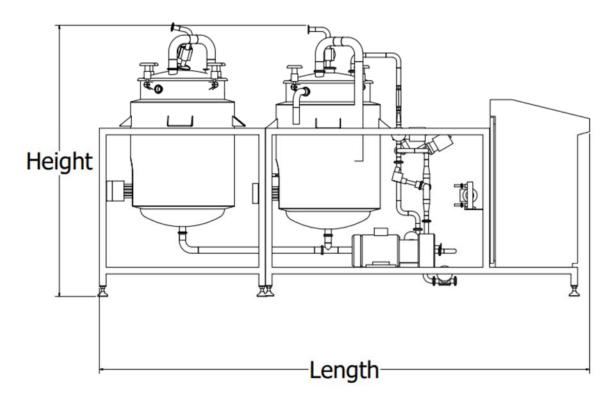
| Typical Cycle | |
|-------------------|---|
| Pre-Rinse | Deliver water as a single pass rinse |
| Chemical Rinse | Deliver chemical — recirculate |
| Inter-rinse Rinse | Deliver water as a single pass rinse or recirculate |
| Final Rinse 1 | Deliver water as a single pass rinse |
| Final Rinse 2 | Deliver final quality water as a single pass rinse |
| Air purge | Removes water from pipework |
| Gravity Drain | System Drain |

Engineering Excellence Delivered with Integrity

PureCIP™ 39172 Cleaning In Place System Layouts with Multiple CIP Vessels

2 Tank version

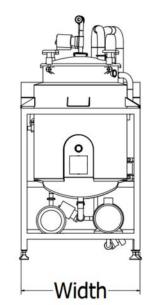






Part # **Dimensions** Vessel Flowrate Length Height Width Capacity litres per mm mm mm litres minute 2 Tank Version *PureCIP*[™] 39172—150 150 0-60 2,200 840 1,850 PureCIP™ 39172—300 300 0-80 2,600 1,000 2,000

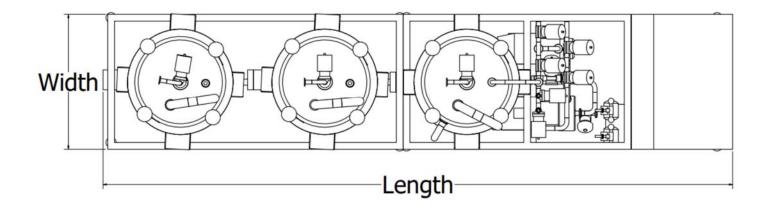
End View

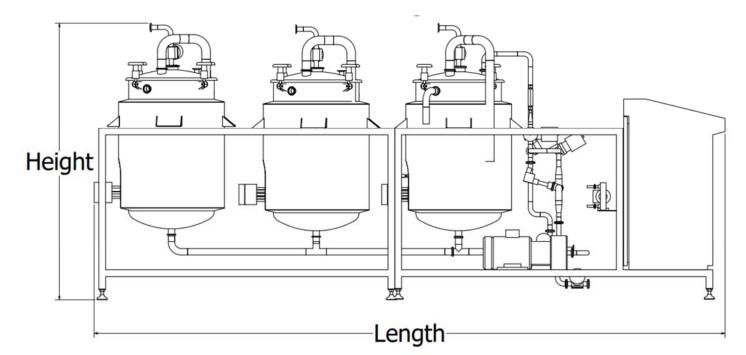


Engineering Excellence Delivered with Integrity

PureCIP™ 39172 Cleaning In Place System Layouts with Multiple CIP Vessels

3 Tank Straight Version





| Part # | Dimensions | | | | |
|-------------------------|------------------------------|----------------------------------|--------------|-------------|--------------|
| | Vessel Capacity litres | Flowrate litres per minute | Length mm | Width mm | Height mm |
| 3 Tank Straight Version | | | | | |
| PureCIP™ 39172—150 | 150 | 0—60 | 2,700 | 840 | 1,850 |
| PureCIP™ 39172—300 | 300 | 0—80 | 3,100 | 1,000 | 2,000 |
| 3 Tank Angled Version | | | | | |
| PureCIP™ 39172—150 | 150 | 0—60 | 2,200 | 1,340 | 1,850 |
| PureCIP™ 39172—300 | 300 | 0—80 | 2,600 | 1,500 | 2,000 |



3 Tank Angled Version



