



Mobile CIP Unit

CIP unit for fermentors and vessels

Efficient cleaning

Modern applications in biotechnology and related processes in the pharmaceutical and food industries have to be performed under clean conditions.

Reproducible cleaning

During the cleaning procedure, the equipment remains in place (CIP = **Cleaning In Place**). This has the benefit of reduced disassembly and reassembly times and reduced manual operation.

Connects to any process vessels

The mobile CIP unit is designed to allow reliable **Cleaning In Place** of tanks and other

Easy connection and setup

equipment like fermentors and peripheral vessels. The standard version is available for vessel sizes up to 1000l.

The CIP solutions are conditioned in the equipment to be cleaned.

As this unit is mounted on a mobile stainless steel skid, it can be moved easily to the equipment to be cleaned.

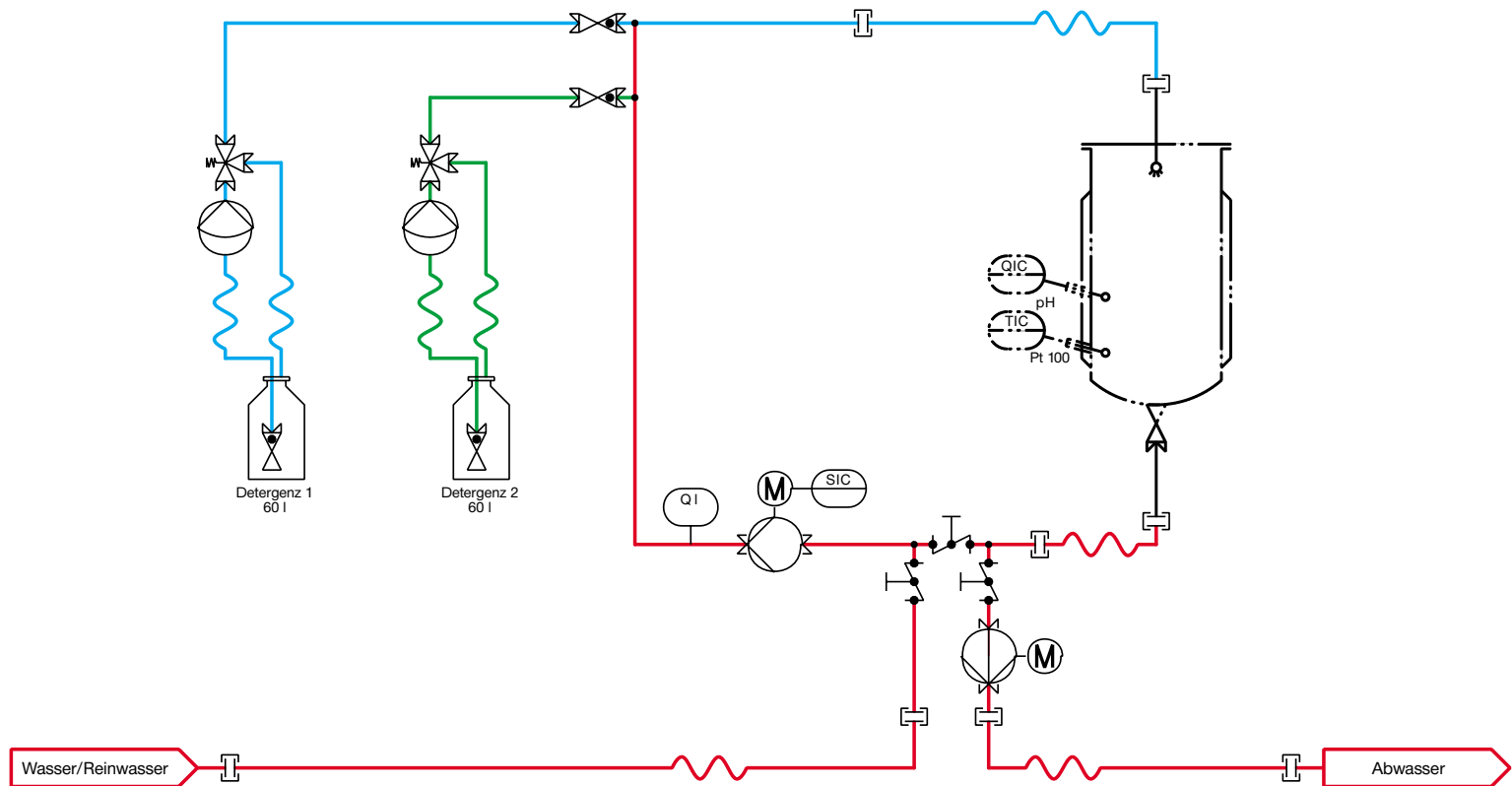
All components in the CIP loop are made of stainless steel to be compatible with the process environment.

A speed controlled high power stainless steel centrifugal pump circulates the CIP solution.

To meet the requirements of any cleaning duty the flow is manually adjustable.

The pump can also be pulsed in order to achieve the full washing effect by spraying and rinsing of the surfaces.

The second centrifugal pump provides the high drainage flows that are needed during rinsing.



Two dosing systems are installed, one for alkali and the other for acid or neutral detergent concentrates. These allow the CIP solutions to be conditioned according to the cleaning process recipe. These dosing systems comprise membrane dosing pumps with adjustable flow rate, dosing lines with priming valve and non return valve plus 50 l containers for detergent concentrates.

A conductivity measurement device allows monitoring of the final rinsing step and thus

allows the CIP operation to be stopped when the equipment has been cleaned according to a specified standard.

The CIP unit is connected to the supply and drain line by standard industrial clamps via flexible tubing.

Switching between each of the process step pre-rinsing, cleaning, and final rinsing is done with butterfly valves integrated into the piping.

Applications:

- For vessel sizes up to 1.000 l
- Cleaning of fermentors
- Cleaning of media vessels
- Cleaning of harvest vessels
- Cleaning of storage vessels
- Cleaning of transfer lines

Specifications:

- Monitoring of cleaning process possible
- Stainless steel cart
- Stainless steel piping
- Stainless steel pump 2,2 kW controlled by frequency converter (other sizes upon request)
- Conductivity measurement
- External connections by Tri-clamps

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