



CIP unit

Cleaning in place with full flexibility



Application

Cleaning in place (CIP) is a standard method for cleaning pipes, tanks and machines in beverage production plants without dismantling the systems. CIP systems usually consist of several tanks combined with heat exchangers and pumps. The systems are equipped with different measuring instruments and controls.

Working principle

The CIP unit recirculates over a specifically selected plant part or unit while applying five steps of cleaning media:

- Recuperated water
- Hot caustic
- Fresh water
- Hot water
- Fresh water

The CIP unit monitors caustic concentrations, temperature and recirculation time to optimise the cleaning effect.

Highlights

- Efficient, fast cleaning
- Minimised water consumption
- Low space requirement
- Increases production uptime
- Prevents potential food safety risks
- Cleaning loop concept allows high flow stability and flexibility in plant layout designs as each plant area can be placed on a specific CIP loop without affecting others
- Special valve clusters allow for switching between loops
- Clear and safe split between dangerous areas like steam or condensate and regular operating side
- Hot steam and condensate lines are installed on the rear side of the unit while equipment like strainers or measuring devices is located at the front for easy access

Main components

- Main frame
- Line pumps
- Heat exchangers
- Steam supply and condensate return
- Detergent dosing equipment

Control panel

The CIP unit is delivered without a control panel on the main frame.

Options

- Flowmeter in recirculation line
- Sampling valve on CIP media supply line
- No control valve in recirculation line (only possible if main water stack tank in CIP loop)
- VARINLINE® equipment upgrade on request
- CIP units available as single-stream design combinable with a double-stream system or to be run as single stream.

Example layout

Measurements on request.



Technical data

All parts in contact with the product are made of AISI 316L. The frames is made of AISI 304L. Units are designed as double or single lines and can be combined as required.

Temperature range:
20 - 90 °C

Standard sizes support the following capacities:

- 20 000 l/h
- 40 000 l/h
- 60 000 l/h

Other capacities on request.

Electrical power	400 V, 50 Hz
Other supply voltage or frequency available	

Steam at 300 kPa, 3 barg (4 bara)

20 000 l/h	max 880 kg/h, 800 kg/h nominal load
40 000 l/h	max 1 600 kg/h, 1 450 kg/h nominal load
60 000 l/h	max 2 100 kg/h, 1 900 kg/h nominal load

Compressed air	600 kPa (6 bar)
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