Mobile Cleaning In Place
Efficient, hygienic and fully automatic cleaning of process equipment

Optimum cleaning results guaranteed

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Packo Industry has developed a mobile unit for the cleaning of hygiene-sensitive process installations in the food industry. The unit is designed with maximum attention to hygiene. It is easy to move from one place to another and can therefore be used for several process installations. It can also serve as a flexible extension to a fixed cleaning system for specific or less common cleaning processes. The cleaning is carried out based on the Cleaning In Place (CIP) principle: automatically and without having to open or dismantle the process installation. Moreover, the automatic control programme cleans all tanks and pipes thoroughly and with minimum consumption of energy, water and cleaning agents.

For what kinds of contamination?
- Product residues
- Microorganisms
- Chemicals
  - Detergent and disinfectant residues
  - Lubricants from start-up tests or maintenance

For what products?
- Beverages
- Eggs
- Liquid yeast
- Sauces
- Soups
- Cream
- Milk
- Cosmetic creams
- Brine
- ...

What is Cleaning In Place?

“Cleaning In Place (CIP) refers to the cleaning of pipes and/or the complete components of installations without having to dismantle or open the installation. It includes the jetting or spraying of surfaces with liquid cleaning agents or the circulation of these agents through an installation, under conditions of increased turbulence and velocity. The cleaning process is fully automated, involving little or no manual work.”

(Source: NDA Chemical Safety Code, 1985)
Advantages

HYGIENE: in accordance with strict hygiene standards
Packo Industry’s mobile CIP units are designed with maximum attention to hygiene, whereby the conical shape of the tank bottom, the hygienic welding, downward sloping pipes, etc. reduce the risk of contamination of your end product. Moreover, the mobile CIP units are automatically self-cleaning.

The units comply with the strictest hygiene standards and guidelines: BRC 6, International Food Standard, Regulation (EC) No. 1935/2004 for food contact materials, etc.

QUALITY: optimal cleaning guaranteed
The cleaning is carried out automatically and therefore always under the same conditions. In addition, the result is checked each and every time and it is possible to archive all cleaning data. This ensures that the cleaning process is always measurable, reproducible and traceable.

PRODUCTIVITY: higher returns from your production environment
The process installation doesn’t need to be dismantled. This results in faster cleaning, higher production uptime and a lower risk of industrial accidents.

The thorough cleaning also reduces the risk of downtime and increases the life span of the process installations.

EASE OF USE: easy to move, connect and operate
The units occupy little space, are easy to move and can be easily connected to any process installation. This enables you to use a single unit for cleaning a wide variety of process installations.

Thanks to the intuitive control panel, you can quickly set up the appropriate cleaning programme depending on the specific process and product requirements.

SUSTAINABILITY: efficient use of resources
The flexible parameters of the cleaning programmes ensure an optimal use of energy, water and cleaning agents.

You can also ensure that the mobile CIP unit is configured to recirculate the cleaning agents, resulting in an even lower level of consumption.
Efficient and effective cleaning

Packo Industry has a wide range of mobile and fixed CIP systems. Each of these carries out a full cleaning cycle based on optimal steps and parameters. This ensures a thorough and efficient cleaning of your specific process installation.

Seamless integration of the mobile CIP unit in your process

Flexible application for each cleaning cycle

Packo Industry CIP systems carry out all stages of the cleaning cycle:

1. Pre-rinse with water to soak and/or remove product residues
2. One or more wash cycles with recirculation of various cleaning agents, including rinses between cycles
3. Draining of the cleaning agents
4. Rinse with hot or cold water
5. Drying (optional)
6. Disinfection and rinse (optional)

The control programme ensures an effective cleaning of the process installations based on the optimal combination of four parameters (see The Sinner’s Circle).

The Sinner’s Circle, four parameters for an effective cleaning cycle

In each step of the cycle, a flexible combination of the following four parameters is possible:
- Temperature: the optimum cleaning temperature for each step of the cleaning process is obtained through the right combination of hot and cold water.
- Chemical effect: the dosing percentage of the cleaning agents is determined based on the effect of the alkaline or acidic cleaning agent on the cleaning result.
- Time: the pre-programmed cleaning cycles consist of several time-based cleaning steps, by which the total cleaning time can be optimised.
- Mechanical impact: to remove the contamination, the control programme regulates the optimum velocity and pressure of the cleaning solutions through the spray ball or jet in the process installation being cleaned.

Installation or pipes to be cleaned

Flexible: application -> return pump
Flexible: return pump -> CIP
Flexible: application -> CIP
Flexible: CIP -> application
Flexible: application -> CIP
Flexible: CIP -> application
Flexible: application -> CIP

Cold water
Hot water
Compressed air
Electricity
Drainage

Temperature
Chemical effect
Time
Mechanical impact
What can you expect from us?

Packo Industry’s goal is to guarantee peace of mind to our clients. We accomplish this by working with you to find the best possible cleaning solution for your process installations. This of course goes far beyond merely selecting the most suitable mobile CIP unit for your specific situation ...

Audit

Improving the cleanability of your process line

A thorough cleaning is determined, first and foremost, by the cleanability of your process installations. Our technical experts perform a comprehensive audit to review the level of finishing, the couplings and the materials used in your process installation. This audit is the basis for their recommendations for enhancing the cleanability of these installations. If you wish, we can also carry out any necessary modifications. Our advanced testing equipment enables us to conduct on-site cleaning tests with your products.

Design and construction

Customised CIP system

Our technical experts develop a mobile CIP unit that perfectly suits your specific situation. Firstly, we make a process and instrumentation diagram (P&ID). We then create a 3D design of the unit. After approval of this design, we work out a meticulous schedule and build the cleaning equipment according to the agreed specifications.

Installation and tests

Optimal operations and use guaranteed

Every mobile CIP unit is tested extensively before being put into service. After installation, we guide your employees in the optimal use of the unit. We also provide training for operators and maintenance technicians.

After-sales service

Permanent monitoring, even after delivery

After installation, we offer permanent support for (preventive) maintenance and possible repairs. Moreover, we remain available to answer all your questions concerning the unit. Finally, we apply the feedback we receive from all sources concerning our products and project approach to ensure that we serve you even better in the future.
Packo Industry

Your peace of mind
Stainless steel equipment for food and pharma

Packo Industry is an innovative manufacturer of stainless steel installations for hygiene-sensitive production processes in the food industry and pharmaceutical sector. We bring peace of mind to our customers, starting from the project phase and throughout the life of the installation. We do this through a structured project approach and plan, a competent team with thorough knowledge of the needs and standards of the sector and extensive post-implementation services.

Sector knowledge
Food and beverage industry and the pharmaceutical sector with their specific applications, requirements and standards.

Robust design
Focus on a safe and hygienic design, which is also efficient to build.

Technical competence
Machine construction hydraulics, mechanics, pneumatics, welding techniques, own production facility and engineering office.

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