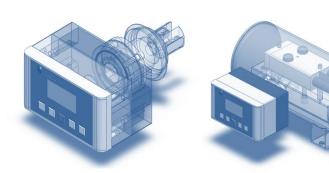




The Centec Group

Centec is a privately owned group of companies. Based on extensive know-how, we are a specialist for automated process skids for high precision dosing — even of smallest quantities. For media supply we offer water purification and pure steam generation systems. CIP- and SIP-units designed and manufactured by Centec are widely used in chemical industries. Centec technology includes a range of high precision process sensors for accurately measuring critical product properties such as the concentration of acidic and caustic solutions and O_2 content. The largest chemical groups in the world are among our key customers.



Accuracy. Reliability. Centec.

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IP & SIP

Cleaning-in-Place & Sterilization-in-Place

Centec Chemistry Systems



Automated process skids and high precision sensors from a single source.

Centec.

More information at www.centec.de

CIP & SIP

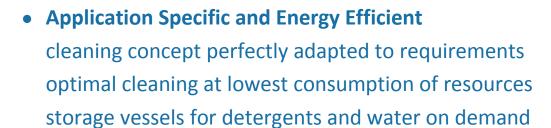
The Principle

CIP and SIP units are applied for fully automatic cleaning and disinfection of valves, pumps, tanks, piping systems and filling machines. Where most stringent hygienic standards apply, sterilization-in-place (SIP) with chemicals or steam takes place after cleaning-in-place (CIP). Cleaning and sterilisation regimes are always adapted to each client's very specific requirements. Some parts of the plant may be cleaned only with water, while other parts might require detergents, acids and caustic solutions. Detergents can be rejected after use ("total loss CIP") or recovered and stored for re-use ("batch CIP"). Centec provides a large variety of CIP and SIP systems. They can be small and mobile or large and stationary — including storage vessels for water and detergents. No matter how complex the requirements may be, Centec has the appropriate solution and extensive expertise in this field. All CIP and SIP systems are designed in such a way that optimal cleaning and disinfection is ensured, with the lowest consumption of detergents, water and energy. Based on highly accurate conductivity and temperature sensors and reliable flow meters, Centec CIP and SIP units stand for efficient and consistently thorough results.

Technical Data

| Capacity | according to requirements |
|--------------------------|--|
| Cleaning Media | acid, caustic, additives, steam |
| Pressure of Operation | 0 - 7 bar |
| Temperature of Operation | 2 - 85 °C (liquid) up to 165 °C (steam) |
| Material | 1.4301/1.4404 AISI 304/316L |
| PLC | SIMATIC S7 |
| Options | detergent and water storage |





- Modular Design with Standard PLC
 skid mounted for easy installation and start-up
- Hygienic Execution Based on Proven CIP Concepts
- Outstanding Price-Performance-Ratio

Experience. Expertise. Centec.

Particle Pre-Filtration · Disinfection · Water Softening & Demineralization · Ultrafiltration · Reverse Osmosis

Electro Deionization · WFI Distillation · Membrane Deaeration · Column Deaeration · Vacuum Deaeration

Multi Component Mixing · Additive Dosing · Flash Pasteurization · Cleaning-in-Place · Pure Steam Generation

