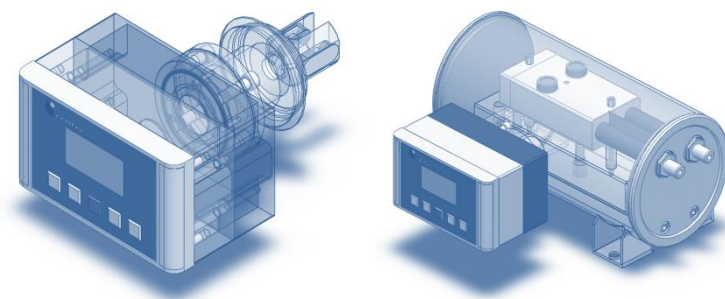


The Centec Group

Centec is a privately owned group of companies. A core business for us is customized systems for the production and distribution of high purity water and water for injection (WFI) for pharmaceutical and biotechnological plants in accordance with GMP and FDA guidelines. We are an experienced partner for pure steam generation, CIP- and SIP-processes as well as for services related to product preparation. 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 O₂ content. The largest pharmaceutical groups in the world are among our key customers.



Accuracy. Reliability. Centec.

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INTRAP

Product Sterile Filtration

Centec Pharma Systems



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

INTRAP

The Principle

The Centec trap filter skid INTRAP is a single- or multi-stage system containing back flushable filter cartridges with specific pore sizes. This unit can be used for many applications, e.g. for sterile product filtration or as an early step in a water treatment regime. By sterile filtration, particles and micro-organisms are removed from the product. This leads to an improvement of product stability and shelf life. When water is purified, prior solids removal avoids clogging and damage to the membranes that subsequently achieve even higher purity. INTRAP can be designed for manual operation with pressure indicators or as a fully automated system. For automatic back flush regeneration the differential pressure needs to be continuously measured. With this option included, the lifetime of the filter cartridges is maximized. Depending on product characteristics, in some applications sterile filtration can be an alternative to flash pasteurization, which is the elimination of the most harmful micro-organisms by using heat. Other processors may prefer to use sterile filters to treat the product before they flash pasteurize.

Technical Data

Capacity	5 - 150 m ³ /h
Pressure of Operation	2 - 8 bar
Temperature of Operation	2 - 85 °C
Temperature of CIP	up to 85 °
Material	1.4404/1.4435/... AISI 316L/... electropolishing possible
Surface Finish	Ra < 0,4 possible
Ferrite Content	< 1 % possible
PLC	SIMATIC S7
Options	in-line O ₂ measurement pressure measurement flash pasteurization



The Centec production is certified according to ISO 9001.

- **Application Specific and Energy Efficient**
reliable product sterilization by specific sterile filters
removal of solids to avoid clogging of membranes
- **Modular Design with Standard PLC**
skid mounted for easy installation and start-up
- **In Compliance with USP, ASME, GMP, FDA, ISPE**
- **Completely Qualified (DQ, IQ, OQ)**
- **Low Operating and Maintenance Costs**

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

