

## Reverse Osmosis Systems

Reverse osmosis is the heart of every pharmaceutical water treatment - as a physical and robust barrier against ions, organic impurities and microorganisms.

We offer our systems for the production of purified water completely made of stainless steel or optionally made of PVDF-HP. In both cases, we focus the design on maximum microbiological safety and optimized efficiency.



### Downstream electrodeionization

Downstream electrodeionization (EDI) removes the residual ions and ensures that the required conductivity limit is observed. The system is designed with a critical assessment of the local tap water quality and the customer-specific process requirements in mind.



## Technical Data

Material	Stainless steel 1.4404 with Ra < 0.8 µm or PVDF-HP
Process engineering	Pre-treatment, 1- or 2-stage reverse osmosis, EDI
Available performances	200 - 20.000 l/h
Total yield	approx. 70 - 75%, incl. concentrate stage up to > 80%*
Sanitization of the entire system	by means of hot water, softening and reverse osmosis can be sanitized separately
Connections	Tri-Clamp according to DIN 32676 or Aseptic-Clamp according to DIN 11864-3
Valves	Diaphragm valves (optional T-Body)
Inline/ Online Process monitoring	Conductivity, flow, temperature and pressure (optional TOC measurement)
Control and visualization	System control via Simatic S7 PLC, Operation and visualization via Siemens TIA Portal
Computer validation	according to GAMP 5

\* related to the entire system incl. water softener.

Technical changes and errors excepted.