

Membrane-based production of WFI



MWFI

Cold WFI production

In order to meet the high requirements for WFI, we rely on consistent hygienic design in all areas of plant construction, which fulfills all EMA requirements as well as all other guidelines.

In addition, our biofilm control strategy includes an intelligent control, alarm, and sanitization concept as well as comprehensive and seamless monitoring.

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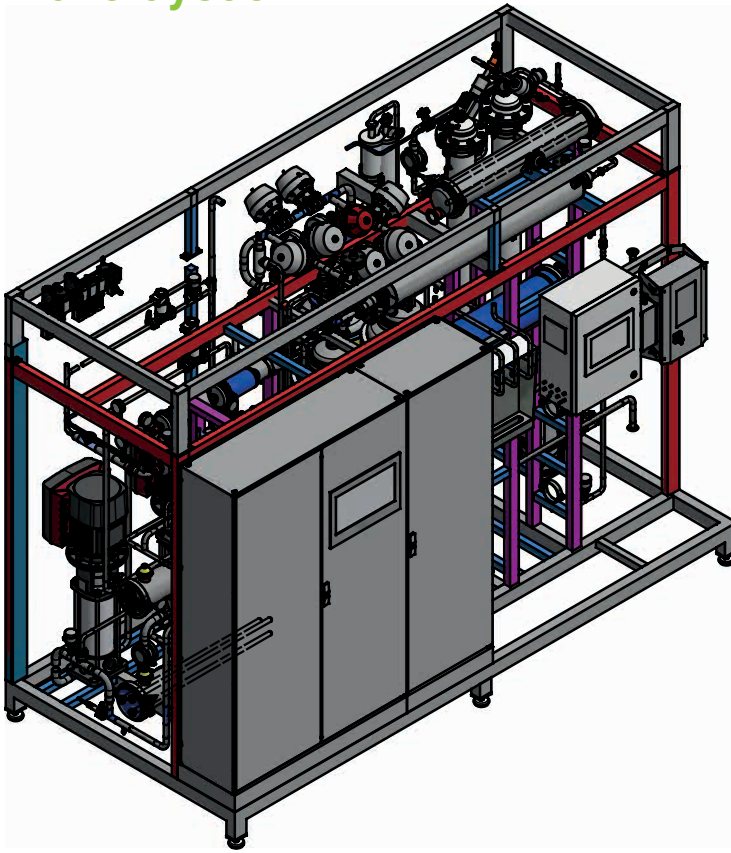
The process technology for feed water conditioning is based on the available drinking water quality. The subsequent core treatment stages in cold WFI production consist of a reverse osmosis stage with downstream electrodeionization and ultrafiltration as the final safety barrier.



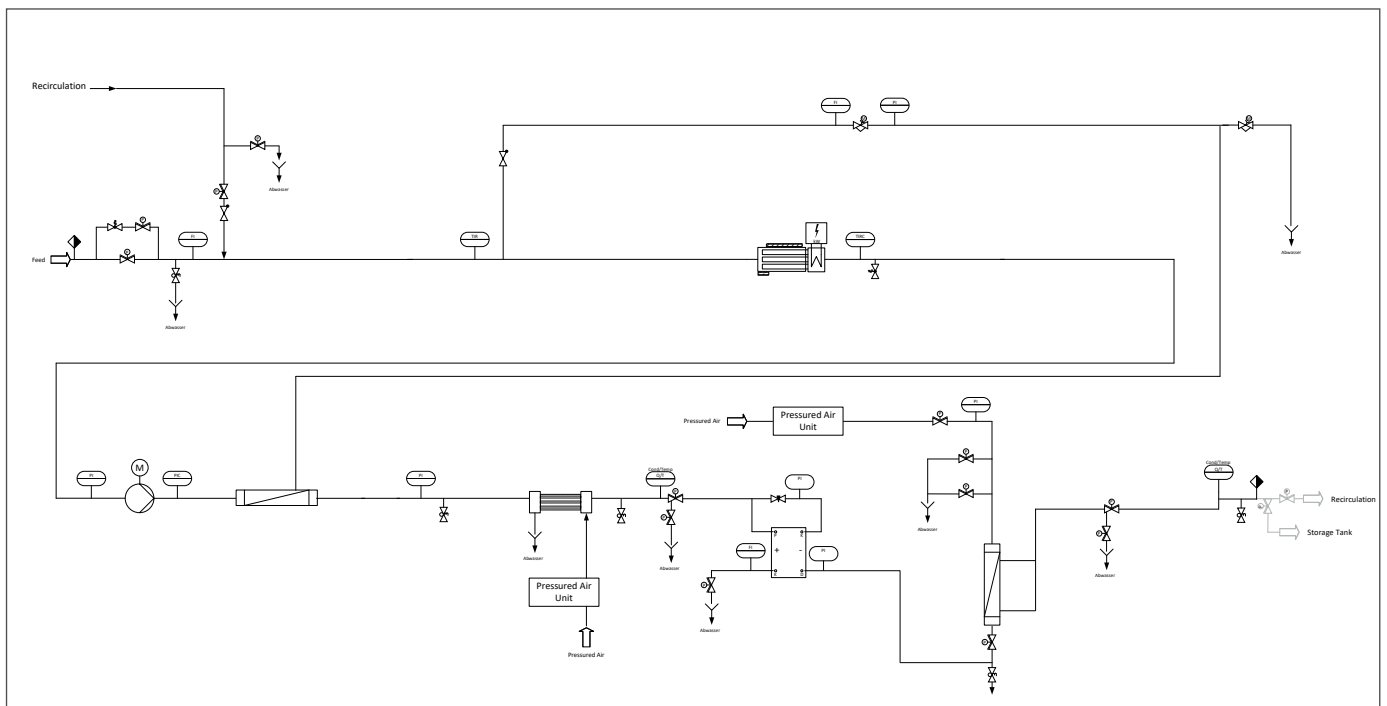
Technical data:

Material	Stainless steel 1.4404 or 1.4435, Ra <0.8 µm, optionally < 0.6 µm, electropolished
Process engineering	Pre-treatment, 1- or 2-stage reverse osmosis, EDI, UF
Available power levels	200 - 20.000 l/h
Total yield	Approximately 70–75% with a concentrate level of up to >85%
Module type ultrafiltration	hollow fiber
Cut-Off Ultrafiltration	6,000 Daltons
Ultrafiltration	Optional fully automatic and logged verification of the integrity of the UF modules during operation
Sanitization of the entire system	Hot water > 80 °C
Connections	Aseptic clamp in accordance with DIN 11864-3 A
Valves	Diaphragm valves (optional T-valves)
Inline/online process monitoring	TOC and conductivity, flow rate, temperature, and pressure (optional bacterial count determination)
Control and visualization	System control via Simatic S7-1500 PLC, Operation and visualization via Siemens TIA Portal
Computer validation	in accordance with GAMP 5

Plant layout



Process representation



Produktflyer_Kalte-WFI_110226_00_final| Technische Änderungen und Irrtümer vorbehalten.

Wasser intelligent nutzen.

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