

Nanofiltration System Dulcosmose® NF

Partial desalination for industrial applications - compact and cost-effective



Permeate outputs from 1 to 50 m³/h, higher outputs possible on request

Equipped with the latest generation of "ultra low-pressure" membranes, this system achieves maximum permeate performance with low operating pressures and high outputs, thereby lowering investment and operating costs.

As the system runs with low operating pressures, the entire system can be fitted with inexpensive PVC pipework. This system is also available with an integral, semi-automated cleaning system and permeate and/or raw water flushing option.

The system can easily be adapted to meet specific customer requirements. Pipework material, other types of membrane for enhanced salt retention or discolouration, integration of measuring and control technology (such as conductivity, redox potential or pH measurement) and metering technology (in pre - and post-treatment) to visualisation of the entire process with peripheral components on a PLC.

Your benefits

- Efficient operation with a low pressure membrane with outputs of up to 85% and high salt retention rates of up to 90% (depending on the type of membrane used).
- Reduced maintenance and service costs, as well as long membrane service lives, thanks to integrated cleaning concepts and flushing options.
- Optional permeate flushing of the entire system, including the membranes, after switching off to avoid deposits and extend the life of the membranes.
- Best ProMinent manufacturing quality: High proportion of in-house manufacturing.
- Pure quality: Use of long-life, high-quality components.
- Service-friendly construction of systems on a corrosion-resistant powder-coated steel or stainless steel frame.

Field of application

- Low-cost alternative to reverse osmosis systems for special desalination tasks, such as the elimination of multiple charged ions or the removal of dyes
- Partial water softening or water softening in public drinking water
- Partial desalination in the chemical and pharmaceutical industry, food and beverage industry, metal processing industry and in electroplating

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Technical Data

- Turnkey systems constructed on a high-quality, double powder-coated steel or stainless steel frame.
- Highly efficient low-pressure membranes with maximum output and system retention rates, built into epoxy-glass resin or stainless steel pressure pipes
- Pre-filter 5 µm with manometer for determining differential pressure
- Pressure switch to protect the high-pressure pump
- Flow meter to display permeate, concentrate and concentrate return volume
- Semi-automatic cleaning system for chemical module cleaning for long module service lives
- Central control for the entire system and peripheral components by the company's own microprocessor controller with graphic display and integrated temperature-compensated conductivity measurement.
- Optional permeate flushing of the entire system, including the membranes, after switching off
 - 2 switching inputs for level control of the cleaning tank
 - 2 switching inputs for level control of the permeate tank
 - Pause switching input for external On/Off
 - External fault switching input
 - Temperature measuring input (Pt 100)
 - Active permeate valve output (filling of cleaning tank)
 - Active output for flushing valve for initial permeate disposal (depending on conductivity), raw water, permeate and interval flushing (idle time management)
 - Active output for controlling a metering pump (anti-scalant)
 - Analogue output 0/4...20 mA conductance
- Optional industrial PLC with touch panel and process visualisation