

Seawater Pre-treatment

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Challenge

The reverse osmosis membranes used in seawater desalination are susceptible to biological fouling and plugging with fine silt. Therefore, seawater desalination requires extensive pre-treatment. Conventional treatment systems are either unable to meet these quality standards or require multiple barriers which result in a larger footprint and investment.

Solution

Norit X-Flow's SEAGUARD hollow fiber ultrafiltration (UF) membrane removes all fine silt and turbidity, and screens microbiology. The Norit X-Flow UF membrane provides a simple solution that produces water that meets the highest standards for SDI, turbidity and microbiology.

Norit X-Flow is the first membrane supplier to supply a membrane specifically designed to pretreat seawater:

- Norit Seaguard - Multiple membranes (up to 4) installed in horizontal membrane housings.
- The membrane housings are made of corrosion resistant GRP and have been designed for UF operation (high flow and low pressure).
- Norit X-Flow has standardized skid designs available for installation of the Seaguard membranes. These skids are being constructed of corrosion resistant materials, suitable for operation in high salinity environments.



Desalination

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Benefits

- UF membrane
 - SDI < 3
 - Turbidity < 0.1 NTU
- Dead-end filtration
 - Low energy consumption
 - Simple layout
- Chemically Enhanced Backwash
 - Low operating pressure
 - Fully automated, no operators
 - Uses low cost chemicals
- Automatic integrity test
 - Confirmation of membrane integrity
- Fully automatic operation
 - Logging of operating parameters
- Pressurized system
 - Fully enclosed
 - Small footprint
 - Direct coupling of UF and SWRO

Application

In-line pressurized operation - UF-RO



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Please visit our website to obtain information about your local support!

X-Flow BV reserves the right to make changes in the technical specifications at any time.

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Desalination

Norit
leading in purification

X-Flow