



Seawater Pretreatment with EVERZIT[®] N



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In many regions of the world including the Middle East, North Africa and some areas of Southern Europe, drinking water production from seawater will be the key technological challenge of the 21st century.

Reverse osmosis (RO) is the main treatment step in seawater desalination. The membranes used in the reverse osmosis process are sensitive to particulate fouling, and therefore the raw water feed to them must be absolutely free of suspended particles. This is ensured by prefiltration of inlet seawater by EVERZIT® N in classical multilayer filter beds.

EVERZIT® N filter beds provide multiple advantages over pure sand filters or ultra-filtration:

- longer operating life
- constant filtrate quality
- easy-to-use, problem-free technology
- minimal maintenance
- reduced backwash frequency
- higher filtration velocity
- high abrasion resistance
- no silicic acid elution into the effluent water, i.e. protects against RO membrane fouling

For users, these benefits add up to substantial reductions in operating expenses and outstanding cost efficiency.

Dual Media Filtration with EVERZIT® N

SWRO Prefiltration without Silicic Acid Elution

Africa's largest desalination plant, built in 2007 in Algiers / Hamma, now supplies fresh drinking water for one third of Algiers' 6 million inhabitants.

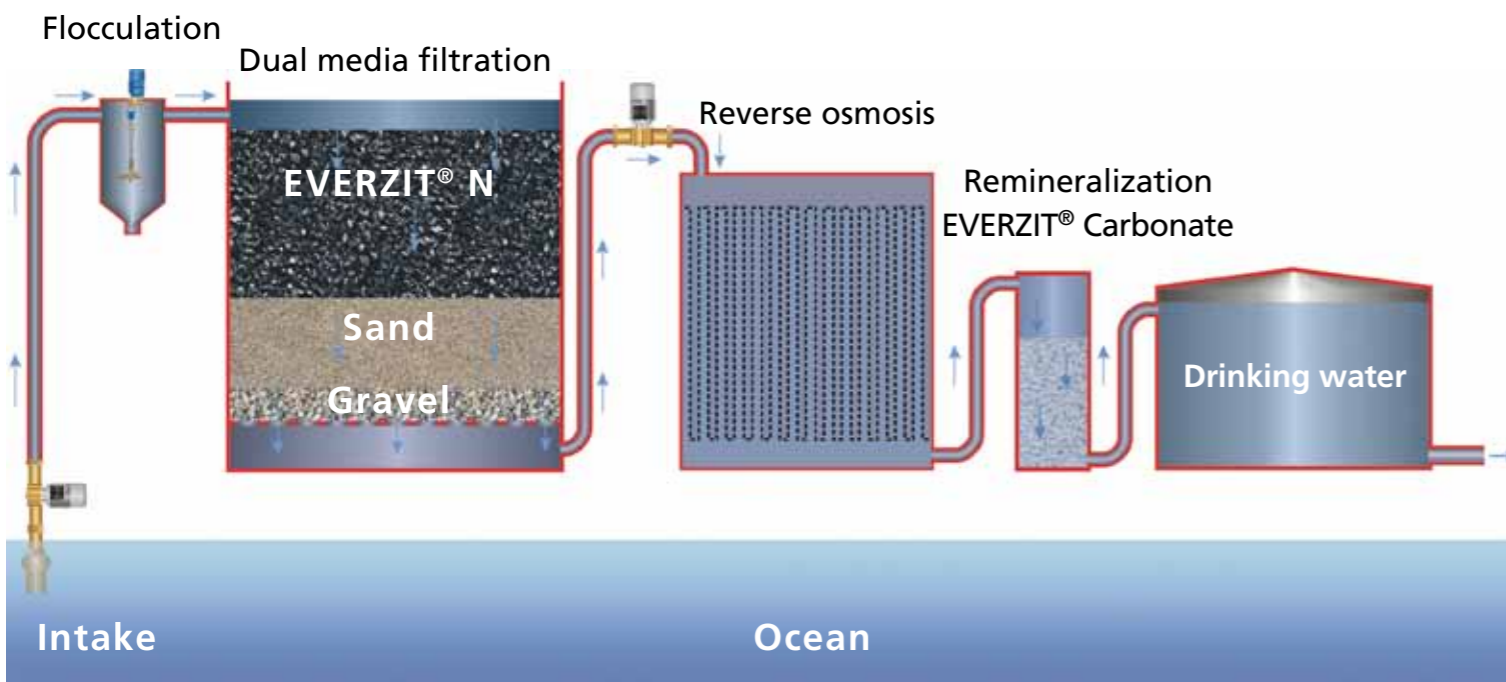
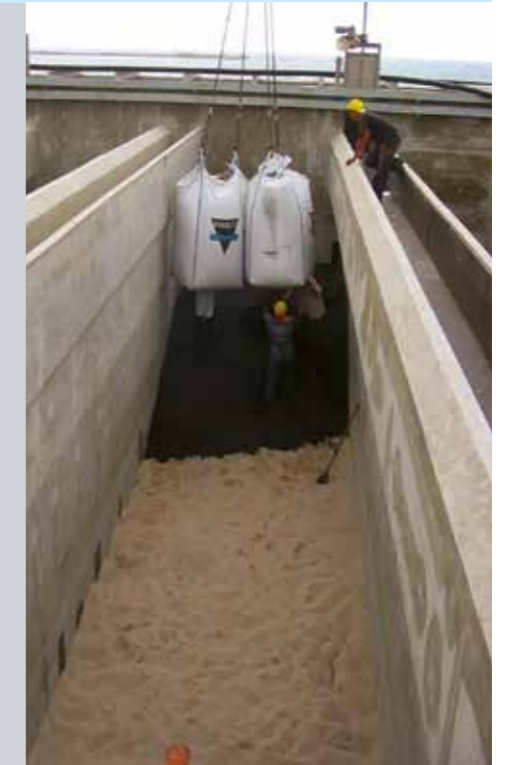
Prefiltration of inlet raw water is done by 32 open multilayer beds, each incorporating an EVERZIT® N filter layer 1.500 mm in depth.

Filter layout:

EVERZIT® N 0,8 - 1,6 mm:	1500 mm
Quartz sand 0,4 - 0,8 mm:	400 mm
EVERZIT® GS 1,4 - 2,5 mm:	75 mm
Quartz gravel 3,15 - 50,0 mm:	300 mm

Technical data:

Capacity prefiltration:	480.000 m ³ / Tag
Capacity RO:	200.000 m ³ / Tag
Number of filters:	32
Total filter surface:	1.920 m ²
Amount EVERZIT® N:	3.045 m ³





Cost-Effective Packaging Units

EVERZIT® N saves you money even in delivery to your plant. A variety of packaging units are available to meet your specific needs:

- 50 litre valve bags on Euro or one-way pallets (with UV stabilized shrink-wrap film)
- Big Bags with capacities up to 1,65 m³
- Bulk transport in silo trucks

EVERS Worldwide

Multilayer filtration with EVERZIT® N is in widespread use on all continents the world over. Offering constant raw material quality, utmost care in manufacturing and a proven track record with decades of field use, EVERZIT® N assures efficient operation of existing and future filtration systems.



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certified



Every day, EVERZIT® N is used to process approx. 22.8 billion litres of raw water to valuable drinking water at locations worldwide.