

Case story | Nirosoft

Danfoss iSave® ERDs at the heart of new, high-end containerized SWRO units

"No other ERD

delivers a combination of energy saving, low maintenance and simplicity."

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Nirosoft's all-in-one desalination solutions are pre-engineered to get up and running fast. And they depend on Danfoss iSave® ERD technology – with unsurpassed isobaric efficiency, simple construction and extreme reliability – to deliver no matter what the water temperature, salinity or lead-time.

The challenge:

Get to market fast with a containerized, low-maintenance high-performance SWRO plant. Pre-engineer it to be flexible enough to accommodate a wide variety of desalination conditions. And deliver at a good price.

Nirosoft saw a market opportunity and went for it. The Israeli company specializes in tailor-made solutions that include everything from engineering and hardware to installation and BOT contracts. An experienced system integrator, they were familiar with all the major suppliers of components for RO plants. And they knew how difficult it was to get a high-quality containerized plant up and running fast.

"We wanted to create a plug-and-play unit that is robust enough for very low maintenance, but at a price customers can afford to pay," explains Michael Tramer, global VP of sales and marketing.

"Until now, the problem has been to balance good delivery time with good price. It used to take anywhere from five to nine months to get the kind of components we need at a decent price from our key suppliers. If you wanted them faster, then you had to pay sometimes a lot more."

The solution:

The NIROBOX™, with Danfoss iSave® ERD at the core of every project

Nirosoft developed its new NIROBOX™ as a plug-and-play membrane based desalination plant that contains everything it needs inside a 40-foot container.

"Basically, the NIROBOX™ is pre-engineered to hit the ground running," says Tramer. "All you need to do is connect the electricity, inlet and outlet pipes, and it's ready to go".

Michael Tramer
Global VP for Sales & Marketing

We are also able to deliver on a very tight schedule – just a few months rather than up to nine months as we used to. Every component has been carefully selected for performance and reliability – as well as delivery time.” NIROBOXes can be configured to produce anywhere from 100 – 1,000 m³ per day.

“We knew from the start that Danfoss’s iSave® ERD would be at the heart of the containerized plant,” says Tramer. “There is just no other ERD that delivers the same combination of energy saving, low maintenance and simplicity for both installation and operation. Plus, Danfoss is able to supply both their iSave® and APP high-pressure pumps at very decent lead times.”

“Other suppliers do provide ERDs with isobaric chambers,” continues Tramer, “but their constructions are much more complicated, take a lot more space to install and are more susceptible to break down.”



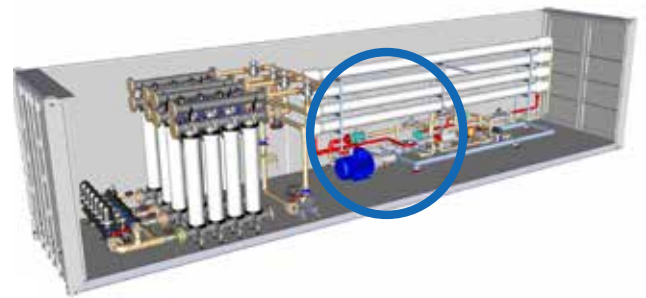
Nirobox™ – 40 foot container built with an iSave® ERD and APP pump. The container can also be built with more iSave® ERDs and APP pumps in parallel.

The results:

The first plant is already on line. The next are in the pipeline.

Nirosoft recently installed its first NIROBOX™ in the remote fishing community of La Chanavayita on Chile’s Pacific coast. The plant comprises three iSave® 21 ERDs and APP pumps in three parallel trains. Each train produces 15 m³ per hour, and the entire plant has a capacity of 1,000 m³/day

“We’re really pleased with the support Danfoss has given for this project,” says Tramer. “We’ve proven the NIROBOX™ concept with the La Chanavayita plant, and now we’re ready to roll it out. We don’t think there is any other solution that can provide such reliable SWRO so quickly – anywhere. And we can’t wait for Danfoss to launch the iSave® 64 that they’ve told us is in the works.”



About Nirosoft:

Nirosoft offers clients complete turnkey solutions – from design and manufacture to commissioning and aftersales service. Systems are supplied on contractual supply, turnkey, BOT or DBO basis, in accordance with each client’s specific needs. Nirosoft supplies water and wastewater treatment systems to customers worldwide, including the Middle East, South America, Australia, Africa and Europe.

For more information see also www.nirosoft.com

Nirosoft is established in 1990. It is an Israeli company that specializes in the design, manufacture, installation, operation and maintenance of membrane-based water and industrial wastewater treatment systems. Nirosoft is a member of the RWL Water Group, based in the U.S.

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