

Case story | Interwater

## Interwater chooses Danfoss to **save energy and OPEX** at Egyptian resort

**35,000**hours of  
trouble-free  
production with  
high energy  
efficiency[hpp.danfoss.com](http://hpp.danfoss.com)

### The challenge:

Build a **reliably energy-efficient SWRO plant** at a new resort in Hurghada, Egypt

Interwater, a leading Egyptian desalination expert, was tasked in 2015 with developing an 1,800 m<sup>3</sup>/d SWRO plant for a new luxury resort in Hurghada along Egypt's Red Sea Coast.

According to Samuel Maher, Interwater's engineering manager, the client's first priority was a reliable plant with the lowest possible operating costs.

"As an SWRO OEM and operator, we understand the importance of maximizing energy efficiency and reducing maintenance costs to keep OPEX as low as possible," he says.

### The solution:

A three-train system based on **APP 26 pumps** and **iSave 40 ERDs**

Maher's team designed a three-train system for the client to provide flexibility and redundancy. Each train delivers 600 m<sup>3</sup>/d and consists of a Danfoss APP 26 and iSave 40.

"We have built and operate about a dozen SWRO plants throughout the Hurghada region," says Maher, "so we have a good idea about the relative advantages and disadvantages of available technologies. The combination of the iSave ERDs and APP pumps delivers the lowest possible specific energy consumption for a plant of this capacity. Their compact size is also ideal for a resort, where space is at a premium and owners want to maximize the square meters dedicated to rooms and minimize the footprint of service buildings."

**The result:**

35,000 hours of trouble-free production – and **best** in class **energy efficiency**

Maher was happy with the support Interwater received from Danfoss as the plant was built. As we write this case, the plant had since clocked more than 35,000 hours of reliable production.

"Maintenance of the Danfoss pumps and ERDs is predictable and simple," Maher explains, "only standard maintenance has been necessary."

Importantly, the SWRO plant's energy efficiency is as low – and even lower – than predicted.

"Since we have been operating for so long, we have a good idea of the plant's specific energy consumption, and it is low. We average between 2.2 and 2.5 kWh/m<sup>3</sup>, which we believe is quite good for a plant of this size."

Maher is confident that Interwater will continue to specify Danfoss pumps and ERDs in the Hurghada region. "The combination of low energy consumption, easy maintenance, reliability, and small footprint suits resort owners well. We expect to install more in the future."



*Interwater is an Egyptian specialist in water desalination and treatment. ISO 9001:2015 certified, Interwater provides OEM SWRO systems as well as service and operations throughout Egypt as well as in Africa and the Middle East.*

*For more information, see <https://www.interwater-eg.com/en/>*

**Danfoss A/S**

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