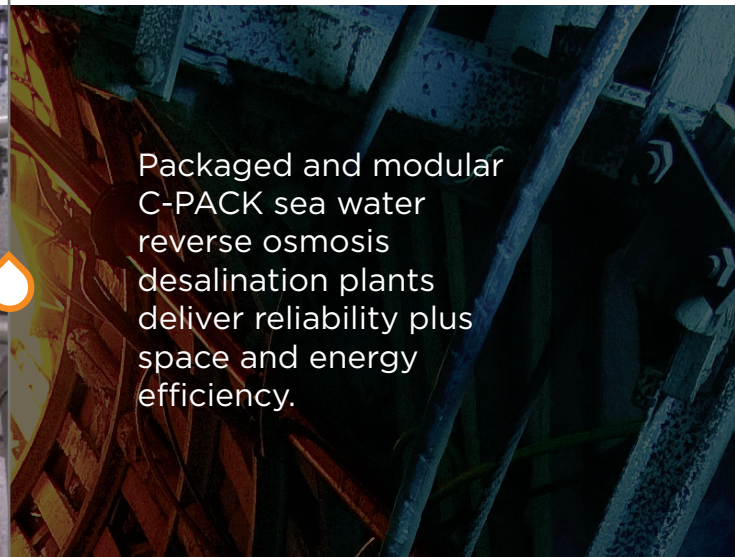


PETROFAC, UNITED ARAB EMIRATES

C-PACK SEA WATER DESALINATION PLANTS



Packaged and modular C-PACK sea water reverse osmosis desalination plants deliver reliability plus space and energy efficiency.

THE CHALLENGE

The continuous supply of drinking water to the offshore oil fields of Zakum Islands in the Gulf Sea is challenging from a logistical and a storage point of view. Given that rough seas can easily halt the supply of the drinking water to the four islands - coupled with the fact that storing water is not an option - meant that the availability of potable water is vulnerable and that any interruption may result in a crisis. As such, an alternative solution to produce drinking water on site was critical.

OUR SOLUTION

For each of the four oil field islands PROXA designed, built and delivered a double pass packaged C-PACK sea water reverse osmosis (SWRO) desalination plant. Each plant comprised a 170m³ per day plant followed by a 30 m³ per day double pass primary unit with a mineralisation injection system.

The drinking water produced was sufficient to supply all the kitchens and the drinking fountains.

HOW PROXA ADDED VALUE

By understanding the client's requirements and the importance of securing drinking water for the thousands of people living and working on the offshore oil fields, PROXA designed, manufactured and installed a robust system tailored to withstand the harsh weather and corrosive atmospheric conditions.

FEED WATER

Sea water

PRODUCT WATER

Potable water

PERFORMANCE TARGET

Drinking water meeting World Health Organisation (WHO) quality standards as well as Abu Dhabi National Oil Company (ADNOC) standards and regulations.

PROCESS

- ◇ Sea water intake system
- ◇ Filtration
- ◇ Chemical conditioning
- ◇ High pressure pumping
- ◇ Membrane desalination
- ◇ Energy recovery system
- ◇ Potabilisation

PROCESS RELIABILITY

Continuous operation and reliable production lead to repeat orders from the same client.

Client: Petrofac

