

Mobile desalination plant to ease water woes from July

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Water shortage in the Muscat region will soon be a thing of the past when a desalination plant with a capacity of 5mn gallons a day starts functioning from July. To be initially located near the Ghubrah Desalination and Power Plant, the facility will remain at the site for only three years. The unit is designed in such a way that it can be moved to a new site at short notice.

"Since our plant is built up of individual package units of 1,000m³ per pair of Salt Water Reverse Osmosis (SWRO) and Multimedia Filtration (MMF) containers, it can be redeployed to smaller independent sites across the sultanate, wherever the need arises," said Iwan Baxter, COO of Septech, which is installing the plant.

Though the reverse osmosis (RO) units are designed to last 25

years, subject to regular maintenance and replacement of consumables such as media and RO membranes, the plant will be based at Ghubra only for three years.



Baxter said that a 1,000m³ system could be deployed in approximately two weeks, depending on the existing water source and brine discharge network.

"Our contract currently includes a three year operation and maintenance period on the Ghubra site. We envisage that the plant will remain in place during this time," he said, adding that they signed the contract

on January 2, 2010.

According to Baxter, the scope of work includes 24 pairs of containerised SWRO units and containerised MMF units, adding up to a total 48 containers. "Each pair of SWRO/MMF containers is capable of producing 1,000m³ of potable water. Each container has been linked by interconnecting pipes so that the plant can produce up to 22.7mn litres a day."

Reverse osmosis works on the principle of water passing through specially designed membranes under extremely high pressure. "For every 1,000m³ of sea water passing through the system, 400m³ of potable water is recovered by reverse osmosis - a 40 per cent recovery rate."

Baxter added that Septech is now registered as a local entity in Oman and is actively looking for opportunities across the water sector, including desalination and waste water treatment.

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