



A Subsidiary of the RWL Water Group USA



THE FACTS

LOCATION: Mindelo, Cape Verde

APPLICATION: Seawater Desalination

DATE OF INSTALLATION: Nov. 2004

PROBLEM: Desalination System required upgrade.

SOLUTION: A containerized reverse osmosis desalination system was installed.

CAPACITY: 4,250 m³ /day

FOOTPRINT: 85 m²

CLIENT: Cyprus Water Development

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- DESALINATION OF BRACKISH AND SEA WATER
- EFFLUENT RECLAMATION
- SUPPLY OF DRINKING WATER IN REMOTE LOCATIONS OR DISASTER AREAS
- DEMINERALIZED WATER
- WASTEWATER TREATMENT

ABOUT AEROMIX

AEROMIX is a world leader in water and wastewater treatment equipment. AEROMIX offers full lines of treatment systems, aeration, equipment, and solar-powered equipment. Learn more by visiting www.aeromix.com.

SEAWATER DESALINATION FOR MINDELO, CAPE VERDE

Challenge

Mindelo is a port city on the island of Sao Vincent in Cape Verde, located off the West African coast. The island, with a population of about 50,000 people and a developing tourist industry, is solely reliant on seawater desalination for its water supply. The island required upgrade of its desalination system to ensure the ongoing supply of fresh drinking water.

Solution

A containerized reverse osmosis desalination system was installed with a capacity of 4,250 m³/day. The reliable system operates 24 hours per day, producing high quality water all year round.

System Description

The reverse osmosis desalination system includes:

- Pumps for extraction of seawater from shallow wells on the beach
- Screen and media pre-filtration (with automatic backwash)
- Chemical pre-treatment
- Cartridge filtration
- High rejection spiral-wound seawater RO membranes in pressure vessels
- Chemical post-treatment including pH adjustment and residual chlorination

40% energy savings

The system incorporates special pumps with energy recovery turbines which reduce the energy requirements of the system by up to 40%, resulting in more economical production of drinking water. Designed to handle high operating pressures and corrosive seawater environments, the pumps consume minimal energy.

Ready-to-use system

The pre-assembled, pre-wired, and pre-piped containerized modules were specially designed for fast and easy installation. The skid-mounted pre-filtration system and RO units were shipped to Cape Verde after complete validation testing at the production facility. Our expert team supervised installation and commissioning of the RO system.

Onsite training and support

Our staff provided onsite operator training and undertook follow-up visits to Mindelo to ensure the system was running smoothly.