# Project Report

# Jeddah Reverse Osmosis Desalination Plant Phase 1 Saudi Arabia

Jeddah Reverse Osmosis (RO) Phase 1 desalination plant is located at the Red Sea in Jeddah, Saudi Arabia. Due to the geographic location, the climatic conditions and the need for reliable water supplies near population centres, seawater desalination is one of the most important methods of producing water.

The seawater reverse osmosis (SWRO) desalination plant Jeddah RO Phase 1 has a capacity of 48848m<sup>3</sup>/day. The plant was commissioned in 1989. The client needed to refurbish and upgrade the complete operational control and automation system to replace the existing obsolete DCS system.

ABB's response to fulfil end user's needs was to deliver solution based on Symphony (Melody) / Maestro UX operational control and automation system which was integrated with the existing plant management system. The scope of ABB's services included design and engineering, manufacturing, supply, installation commissioning as well as the dismantling of the existing obsolete DCS system. On account of ABB's expertise and capability to successfully execute such challenging projects, and ABB's longstanding project experience in desalination, the project was finished within an extremely short delivery and commissioning time (only 10 days plant shut down).

Enduser: Saline Water Conversion Corporation (SWCC), Jeddah, Saudi Arabia.

The project was completed in October 2007.







## **Technical Specification / ABB Scope**

#### Jeddah RO Desalination Plant Phase 1

- 1x 230 V UPS (inverter)
- Control system and telemetry (extension)
- Symphony (Melody)/ Maestro-Ux DCS control system
- System Operation training system
- Erection
- Commissioning
- Dismantling of the existing system
- Co-ordination and supervision of all shut-down activities

#### Note:

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