



# RODI systems

## Project Photos

### Project Information

**Client:** Petroleum drilling company

**Location:** Morocco and Turkey

**Application:** UF/RO desalination

**Description:** The project entailed the design and construction of four containerized desalination plants to provide drinking water to remote oil and gas well drilling locations. Each system included media filtration, ultrafiltration, reverse osmosis, uv sterilization, and chemical disinfection. Because of their self-contained nature, the systems were thoroughly tested at RODI's facility before shipment.



Each system is totally self-contained inside a 20 foot intermodal shipping container. Each container is insulated and equipped with an air conditioner to provide climate control. The system operates from a single 460 volt AC power source.

Although the systems were designed to produce only 2500 gallons per day, they possess the same high performance water treatment technologies that would be found in larger systems. This photo illustrates the pretreatment equipment which includes media filtration with Turbidex™ media and ultrafiltration via hollow fiber UF modules.





Each system is equipped with a state-of-the-art control system utilizing electronic sensors for flow and pressure monitoring. All control functions are available from a single touch-screen operator interface. The container is insulated with 2 1/2" of rigid foam insulation covered with a 1/16" thick plastic barrier. The insulation is designed for use in wet industrial environments.

This photo illustrates the pumping arrangement used for the RO portion of the treatment systems. Danfoss APP positive displacement pumps were chosen for their compact size and their ability to pump with minimal pulsation. Rinse and flush cycles of the RO unit are fully automated.



Each system includes an 1800 gallon storage tank for the finished product (the large green tank in the background). The white cylindrical tank in the foreground holds UF filtrate and feeds the RO unit. The rectangular tank near the ceiling in the background hold RO permeate which is used to automatically flush the RO membrane elements upon shutdown of the system.