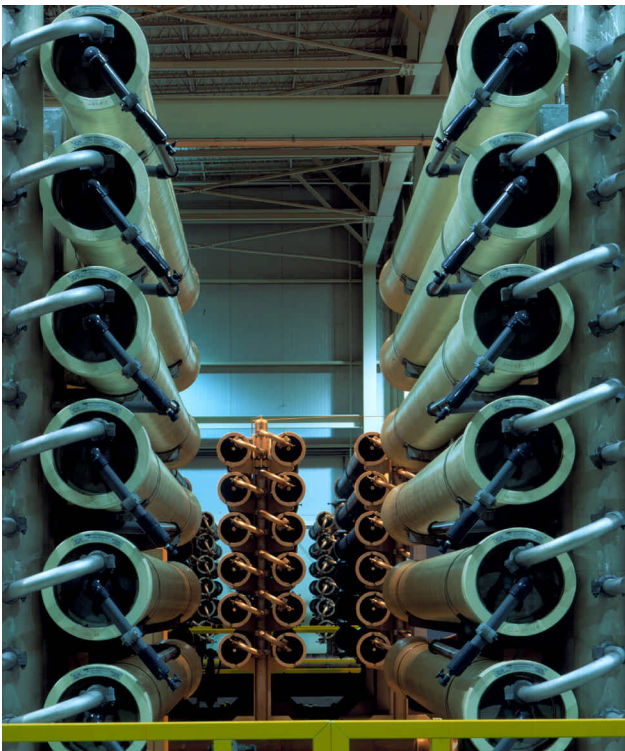


Desalination - Engineering and Design

Burns and Roe is a full service engineering, procurement, operation, maintenance and project management firm. We have been involved in the engineering, development, operation, and maintenance of membrane desalination systems since the early 1960s and have the unique capability to provide comprehensive analysis in this expanding field.



Burns and Roe believes the key to a high quality desalination facility involves using a staff of specialized professionals to design and engineer the project. Our staff includes specialists in seawater intake structures, heat transfer analysis, hydraulic flow analysis, and water treatment processes. As a result of this work, Burns and Roe has submitted and received patents on a number of desalination processes.

Burns and Roe's specialists are experienced in virtually all known technologies in the desalination field, from conventional approaches to concepts developed by our firm. Our engineers have designed and managed construction of the following:

- Reverse osmosis, nanofiltration, ultrafiltration, and microfiltration plants
- Multistage flash, multiple effect evaporators
- Dual-purpose electric power and seawater conversion plants
- Mobile test units and pilot plant equipment

Representative Projects

- Guantanamo Bay Seawater Reverse Osmosis Plant, U.S. Naval Base, Cuba - five seawater reverse osmosis plants
- Nanofiltration Pilot Test Plant, Paradox Valley, Colorado - initial and longevity testing and analysis
- Cape Verde Electric Power and Seawater Conversion Plant, Sal Island, Cape Verde - central diesel generating station, sanitary sewer system, and potable water source
- Raytheon Middle East Systems Desalting Plants, Jidda, Saudi Arabia - two desalting plants of 300,000 gallons per day each
- PPG Industries, Inc., Desalting Plant, Guayanilla, Puerto Rico - 1.44 million gallons per day multistage flash desalination plant
- Caltex Petroleum Corporation Desalting Plant, No. 3, Bahrain - expanded an existing desalination facility with a 900,000 gallons per day seawater multistage flash desalting plant
- Virgin Islands Water and Power Authority Water Plants, St. Thomas and St. Croix - two 2.25 million gallons per day seawater desalting plants
- East Mesa Vertical Tube Evaporator Geothermal Desalting Plant; Imperial Valley, California - 50,000 gallons per day desalination plant
- Bahamas Oil Refining Company Desalting Plant, Freeport, Grand Bahamas - refurbishment of a 1.25 million gallons per day desalting plant
- Guantanamo Bay Water Desalination Plant and Power Generating Station, U.S. Naval Base, Cuba - 2.25 million gallons per day multistage flash and multiple effect seawater desalination and 15 megawatt electric power plants
- Lanzarote Electric Power and Seawater Desalting Plant, Canary Islands, Spain - 1.5 megawatt power plant with potable water capacity of 500,000 imperial gallons per day
- Electric Power and Water Desalting Plant, Jidda, Saudi Arabia - 50 megawatt power plant combined with a 5 million gallons per day desalination plant

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