

# Siemens Water Technologies

## Fast Facts Fiscal Year 2007

Worldwide Employees: 5,282	Number of Installations: More than 200,000
Locations Worldwide: 187	Technologies/Service Offerings: More than 900
R&D Locations: 12	Patents & Trademarks: 1,888

### Securing the Future...

Urbanization and demographic changes pose serious challenges to secure water supplies for future generations:

- By 2025, one-third of the world's population will be affected by water shortages and by 2050, 60%.
- Today 1.2 billion people are without drinking water and 2.4 billion people are not connected to wastewater systems.
- There will be a 40% increase in water consumption by 2025.

### ...through Resource Management

Currently:

- Siemens' microfiltration and ultrafiltration technology treats more than 1.5 billion gallons of water per day for water reuse and reclamation, helping reduce the demand on potable water worldwide.
- Two of Siemens' conventional water treatment technologies, the CenTROL filter and the Trident system, treat a combined 245 million gallons of water per day for water reuse.
- Siemens protects our oceans through 750 produced water treatment systems, treating about 6 million barrels of water per day.
- Through the use of thermal reactivation, Siemens reduced the volume of spent carbon sent to landfill by over 38 million pounds in 2007.
- In 2006, Siemens Water Technologies' Recovery Services group generated almost 6 million pounds of solids/residuals waste, and recycled/recovered 4.21 million pounds of metals.
- In addition, Siemens' Recovery Services group also recycled 16 million gallons of liquid as well as 2.6 million pounds of ion-exchange resin for waste minimization in 2006.

Siemens Water Technologies

## Top Achievements

- Siemens' Envirex product group installed its first wastewater treatment equipment in the 1890s. Since then, it has installed equipment at more than 26,000 treatment plants, including facilities in all 50 U.S. states.
- Named one of the most significant technological advances of the 20th century by *Life* magazine, Siemens' Wallace & Tiernan product group invented the chlorinator to disinfect drinking water in 1913.
- In 1990, membrane technology from Siemens' Memcor product line was used in the first municipal wastewater reuse installation.
- Siemens was the first to commercialize continuous deionization, with more than 500 deionization systems in operation worldwide.
- Siemens developed the double-pass reverse osmosis technology, changing the way microelectronics manufacturers treat water.
- Siemens designed and installed four of the first five water reuse and recycling systems for automotive assembly plants in Mexico, which have won a wide array of awards including the "Stockholm Industry Water Award."
- Siemens was the first to introduce mobile water treatment to the industry more than 35 years ago.

## Top Customers

- Siemens supplied a Memcor microfiltration system, one of the largest in the world, to the Orange County Water District in California for its groundwater replenishment project.
- Siemens serves more than 90% of the Fortune 500 manufacturing companies, including approximately 100,000 industrial customers.
- Siemens has installed equipment at more than 95% of the petroleum refineries in the United States.
- Virtually all the combat and auxiliary ships in the U.S. Navy use Siemens' cathodic protection systems.
- Every day, Siemens delivers water treatment or services to hundreds of thousands of communities and individual homeowners worldwide.
- One out of 10 Americans drink a bottle of water purified by Siemens technology every day.
- The wet air oxidation process from Siemens is the technology of choice for treating spent caustic liquors generated at refineries and ethylene plants around the world.
- Siemens' wet air oxidation process is also reducing landfill disposal costs and waste for OPTI Canada's Long Lake oil sands project.
- Siemens' water technology produces 80% of the steam generated in New York City for heating and cooling.
- Siemens provides high-purity water systems for paint lines at more than 80% of automotive assembly plants in the U.S.
- Siemens provides local water treatment services to virtually 100% of the automotive assembly plants in North America.
- Siemens supplied the largest EDI (electrodeionization) installation in the world at New York's Con Ed facility for consistent high-purity water supply.
- Siemens supplied two of the largest dewatering and thickening systems for biosolids treatment in the world in Egypt and Greece.
- Beijing's Bei Xiaohe Wastewater Treatment Plant will install a membrane bioreactor from Siemens, using ultrafiltration for recreational water and wastewater reuse at the 2008 Olympic Park.
- In 2007, Siemens Water Technologies in Singapore and Belgium sold approximately \$4 million in process water and wastewater systems to large biopharmaceutical companies.

## Global Business Activity

Siemens Water Technologies has dedicated water specialists in more than 15 countries. The company has major manufacturing and sales offices in Australia, Canada, Germany, Mexico, the United Kingdom and the United States. Eighty-five percent of the U.S. population, and most of the U.S. industrial bases, are located within 100 miles of a Siemens Water Technologies service branch.



Over the next 10 years, Siemens will donate \$10 million in funds and equipment for medical supplies and water technology to rural China through the Clinton Global Initiative.

Siemens supplies ultrafiltration for the SkyJuice Foundation's SkyHydrant™ water filtration units that have provided clean drinking water to over 300 remote areas worldwide which previously had no access to clean drinking water.

## Research and Development

Siemens Water Technologies has seven competence centers, 12 locations, and 151 people located throughout the world, dedicated to R&D.

- The company's R&D headquarters is in Singapore.
- Recent technology agreements with Singapore Public Utility Board and Mekorot (Israel's largest water utility) promote innovation.
- R&D focuses include waste reduction, energy and process efficiency, and desalination and water reuse.