



## Ashkelon – 118 million m<sup>3</sup>/year *GWI's SWRO "Desalination Plant of The Year 2006"*

### Overview

**Capacity:** 118M m<sup>3</sup>/year

**Technology:** RO (Reverse Osmosis)

**Project Type:** BOT (Build-Operate-Transfer)

**Water Price:** \$0.53 per m<sup>3</sup>

**Boron:** < 0.4 ppm

**Maximum Specific Electrical Consumption:**  
< 4kWh/m<sup>3</sup>

**Location:** Ashkelon, Israel

**Commission Date:** 2005

**Footprint:** 350 x 200 (mxm)

### Differentiating Features

**PIONEERING MILESTONE PROJECT:** the world's first mega-capacity SWRO plant.

**COST LEADERSHIP:** sets a new benchmark for the cost of desalinated water.

**TECHNOLOGY LEADERSHIP:** utilizes IDE's proprietary Pressure-Center Design, Triple Line Intake, ERS (Energy Recovery System) and a unique Boron Removal System.

**CUSTOMIZED APPROACH:** every element of the plant was customized to maximize performance and minimize costs in the local environment.

**GLOBAL RECOGNITION:** won GWI's "Desalination Plant of The Year" award in 2006.

## Success Story

“The world’s largest SWRO desalination facility that raises the ambition of the whole RO sector...achieved one of the lowest prices for desalinated water in the world...the project’s achievements may take many years to match...” (Global Water Intelligence Magazine, January 2006)

The completion of the Ashkelon plant was a milestone event for the desalination industry.

By far the world’s largest desalination plant at the time, the Ashkelon plant offered mega-production capacity of up to 100 million m<sup>3</sup>/year at a cost of \$0.53 per cubic meter, a cost that undercut the optimistic forecasts of many industry analysts. As such, the successful completion of the plant opened new horizons for the international desalination industry - and established IDE as the clear leader of the industry’s mega-SWRO desalination space. In 2009, due to the unqualified success of the plant, it was expanded by nearly 20% to 118M m<sup>3</sup>/year.

The technology innovations introduced in the Ashkelon plant include IDE’s proprietary 3-Center Design (pumping center, membrane center and energy recovery center), Triple Line Intake and a unique Boron Removal System. The fully automated plant employs state-of-the-art means for saving energy. The plant is powered by an independent 80 MW combined cycle electric generation plant.



The plant was developed and operated under a BOT (Build-Operate-Transfer) scheme in a joint venture with Veolia. In 25 years, ownership of the plant will be transferred to the Israeli government.

The success of the Ashkelon joint venture, together with the numerous other desalination joint ventures completed by IDE, demonstrate IDE’s reliability as a trusted source of technology, project management, engineering and construction know-how and financial capabilities.

## About Us

IDE Technologies is a world leading desalination company. Since 1965, we have built 400 desalination plants throughout the world with a cumulative capacity of over 2,000,000 m<sup>3</sup>/day. Both our thermal distillation and SWRO desalination technologies are recognized as the most advanced in the world. IDE is jointly owned by two of Israel’s largest industrial enterprises: ICL Group (50%), one of the world’s leading fertilizer and specialty chemicals companies, and Delek (50%), the leading energy & infrastructure group based out of Israel.