



Sarlux

The World's Largest Mechanical Vapor Compression (MVC) Desalination Plant

Overview

Capacity: 6 X 2,880 m³/day MVC units

Technology: Mechanical Vapor Compression Desalination (MVC)

Customer: Sarlux (SARAC) Refinery

Product: Highly pure processed water (< 5 ppm)

Project Type: Engineering, Procurement, Construction (EPC)

Location: Sardinia, Italy

Commission Date: 1999

Footprint: 35 x 70 (mxm)

Differentiating Features

SIZE: the world's largest MVC plant.

TRACK RECORD: operating successfully since 1999.

PRODUCT: highly pure water for process use in refinery (< 2 ppm upon demand).

TECHNOLOGY LEADERSHIP:

- **Optimized design** results in highly cost-effective, reliable operation with low energy consumption.
- **Option for use of steam power** to supplement electricity further reduces operating costs.

GLOBAL RECOGNITION: Recognized by the global water industry as a leading MVC desalination plant showcase.



Success Story

Located on the Italian island of Sardinia, the Sarlux Integrated Gasification Combined Cycle (IGCC) plant is the second largest in Europe. The project was completed in March 2000.

As part of its gasification process, the Sarlux factory requires a reliable and stable source of high purity, de-aerated water. Given Sardinia's limited water sources, the plant design called for the creation of an on-site seawater desalination capability. Such a facility would provide Sarlux with control over the quantity and cost of its water consumption.

After a thorough evaluation of available desalination solutions, Sarlux chose IDE's MVC desalination technology. Working together with IDE's engineers, Sarlux decided to deploy six individual units, representing a total water desalination capacity of more than 17,000 m³/day. The units were installed on an EPC (Engineering, Procurement and Construction) basis in 1999, and have been running ever since, according to original specifications and with minimal maintenance.

The Sarlux installation demonstrates the unique value proposition of our MVC units. With a remarkable record for simple and economical operation at low electrical consumption, the MVC is an ideal pure water solution for refineries, water-consuming industries, power stations and remote tourist sites - actually, anywhere that a stable and reliable source of pure water is critical for success.

Why IDE

UNMATCHED EXPERIENCE: IDE has built 400 desalination plants in 40 countries. As the dominant player in the global thermal desalination industry, IDE has deployed the world's largest MVC plant to date and some of its largest MED and membrane (RO) plants.

LEADING TECHNOLOGY: Our proprietary technologies for both thermal and RO desalination are recognized as the most advanced and cost-effective in the world. They have been field-proven in diverse, challenging conditions.

CUSTOMIZED APPROACH: To assure optimal performance, we customize our solutions for local conditions and specific customer needs.

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 m³/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.

