



Reliance Industries

India's Largest Desalination Plant

Overview

Capacity: 4 x 24,000 + 4 x 12,000 + 1 x 14,400 = ~160,000 m³/day

Technology: Multi Effect Distillation (MED)

Customer: Reliance Industries Ltd.

Project Type: Engineering-Procurement-Construction (EPC)

Location: Jamnagar, Gujarat, India

Product: Highly pure processed water (< 5 ppm)

Commission Dates: 1998, 2005 & 2008

Footprint: 4 units: 45 x 200 (mxm), 4 units: 60 x 120 (mxm), 1 unit: 45 x 45 (mxm)

Differentiating Features

SIZE: India's largest seawater desalination plant, and one of the largest MED sites worldwide.

TECHNOLOGY LEADERSHIP:

- Lowest energy consumption.
- Low temperature process for high safety and low maintenance.
- Minimal pre-treatment required.
- Continuous operation with high reliability > 99%.

TRACK RECORD: continuous successful operation for more than a decade.

ROBUST, CUSTOMIZED DESIGN: optimized for customer needs; low maintenance and operational costs.

EASY OPERATION WITH LOW OPERATING COSTS: inherent stability and automatic control reduce the need for labor and maintenance while maintaining high availability.

HIGH QUALITY PRODUCT: Water produced meets strict Boiler Feed Water (BFW) quality requirements.

Success Story

Reliance Industries - 12 Years of MED-Based Seawater Desalination at India's Largest Oil Refinery.

Reliance's pursuit of excellence and cost efficiency led it to seek out an advanced seawater desalination solution to provide high quality boiler feed water, as well as drinking water for local consumption. In 1997-1998, Reliance installed four IDE MED desalination units, each with a capacity of 12,000 m³/day. Highly satisfied with the quality of the water produced, as well as the equipment's high level of mechanical availability and reliability, in 2005 Reliance installed an additional 14,400 m³/day unit. This was followed in 2007 by an order for four additional units, each with a mammoth capacity of 24,000 m³/day, bringing Reliance's total desalination capacity to approximately 160,000 m³/day.

Reliance's desalination success proves that eco-awareness, operational innovation and cost savings go hand in hand. With over ten years of flawless performance, our MED units have proven to be 'work-horse' solutions that operate reliably, generating return on investment year in and year out - a testament to the quality of our solutions, and our ability to tailor them to achieve optimal performance according to our customers' needs.

Over the past decade, IDE has installed more than 20 desalination units across the Indian sub-continent for applications ranging from nuclear power stations to oil refineries, cement factories and other industrial facilities. The technological excellence of these units, in terms of operational simplicity and immediate availability upon demand, has led to a steady flow of repeat orders in the region.



Why IDE

UNMATCHED EXPERIENCE: IDE dominates the global thermal desalination industry and has installed some of the world's largest MED plants.

LEADING TECHNOLOGY: IDE delivers superior, robust desalination units specifically designed for challenging seawater conditions. Our proprietary desalination technologies are recognized as the most advanced in the world.

CUSTOMIZED APPROACH: To assure optimal performance, we customize every element of our plants to the needs of our customers and their local plant environment conditions.

ENGINEERING KNOW-HOW/PERFORMANCE: Our plants have set new industry benchmarks in terms of capacity, throughput, efficiency and energy usage. This enables us to exceed design criteria and to deliver the industry's lowest cost per cubic meter of water produced.

PROJECT MANAGEMENT: We have carried out successful turnkey, BOT and EPC projects in all regions of the globe. We are able to execute all project phases, including independent design, construction and operation of complex plants. In addition, we are reliable partners in joint venture scenarios.

FINANCIAL CAPABILITIES: Our financial capacities help transform ambitious desalination concepts into achievable facts on the ground.

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, including 25 MED desalination units with a capacity of more than 300,000 m³/day in the APAC region. 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.

