YOUR PARTNERS IN THERMAL DESALINATION
MULTI-EFFECT DISTILLATION (MED)
Proven Expertise | Leading Technology | High Efficiency

www.ide-tech.com
IDE understands that what really counts is developing plants that reliably and consistently hit performance targets and delivering on the promises we make. To achieve this, we work in close partnership with our customers to deliver success and growth.

Cost-effective, efficient MED solutions

After pioneering thermal desalination for close to 50 years, IDE is the industry's most experienced provider and the source of the majority of its advanced technologies.

IDE's MED units are the industry's most reliable, robust and cost-efficient seawater desalination solutions, with capacities ranging from 600 to 25,000 m³/day per unit. They produce a reliable, low-cost stream of high purity water for power plants and industries that can provide low-grade steam as an energy source. IDE customizes its MED solutions for the needs of each customer, including the site specific characteristics of seawater and steam inputs.

The world's most advanced desalination technology

The MED units utilize the advanced technologies and know-how developed by IDE to achieve exceptional thermal efficiency and reliability. Its underlying concept is a multi-effect process in which a spray of seawater is repeatedly evaporated and then condensed, each effect at a lower temperature and pressure. This highly efficient process multiplies the quantity of pure water that can be produced using a given quantity of energy, resulting in a significant reduction in cost.

Key features of MED plants

- High availability and very high reliability
- Customized for reduced-cost performance over the long term - modular design allows the number of process effects to be optimized for the plant's specific environment and site conditions
- Fast installation time
- Reduced on-site maintenance - a 20,000 m³ plant only needs 3 people on-site, saving time and cost
- Large wetting areas of heat transfer tubes - help avoid scaling and fouling
- Large pitch design - for reliable, non-clogging wetting operations
- De-aeration of the incoming feed (seawater) within the falling film condenser - eliminates corrosion
IDE’s leading partnerships in MED desalination

IDE’s MED plants are customized for economic performance over the longer-term, with guaranteed Boiler Feed Water (BfW) containing less than 5 ppm TDS delivering superior reliability and greater availability than ever before.

Our MED plants use waste steam to generate high quality water. This means operational costs are reduced, efficiency is increased and less steam is released into the environment.

IDE has dozens of partnerships that feature MED technology. Here are some highlights:

Gujarat, India – Reliance Oil Refinery
With a capacity of over 160,000 m³/day, this is India’s largest seawater desalination plant. The plant features low maintenance and operational costs, low energy consumption and reduced need for labour while maintaining high availability. With a record of successful production of water that meets the strict Boiler Feed Water requirements (BFW) for over a decade, Reliance recently ordered new MED units as well as an SWRO plant that will increase the total capacity even further to 400,000 m³/day.

Tianjin, China – SDIC (State Development and Investment Corporation) Power Plant
A unique desalination solution for China’s largest desalination plant that provides reliable and sustainable clean water to the Tianjin power plant. The plant is uniquely powered by waste heat generated by the Tianjin SDIC electricity plant, thereby reducing costs and minimizing the discharge of heat from the plant to the atmosphere. The plant recycles the waste brine and uses it to create pure table salt. IDE has worked successfully in partnership with the SDIC for many years and was awarded the second stage of this project which was completed in 2013, increasing capacity to 200,000m³ /day making it one of the largest MED plants in the world.
About IDE

A world leader in water treatment solutions, IDE specializes in the development, engineering, construction and operation of enhanced desalination facilities, industrial water treatment and water reuse plants. Over 5 decades, IDE has installed more than 400 plants of various types and capacities, in over 40 countries worldwide.

Recognized for developing some of the most advanced thermal and membrane technology, IDE has designed, built and currently operates some of the world’s largest desalination facilities, (e.g. in China, India, US, Australia and Israel). IDE also provides modular solutions that allow for growth, and IDE PROGREEN™, a chemical-free reverse osmosis ‘plant in a box’. In addition, IDE has proven experience in ground-breaking industrial water treatment plants.

Working in partnership with a wide range of customers – oil & gas, mining, refineries, power stations and municipalities – on all aspects of water projects, IDE delivers over 3 million m³/day of high quality water worldwide.

We listen first so we can create the best solutions for your needs. We then bring technological leadership, proven reliability and consistent delivery to all our projects. Our highly experienced and dedicated team builds strong partnerships that lead to success and growth.

IDE has teams in the US, Canada, China, India, Australia and Chile, as well as our headquarters in Israel, enabling full client partnership all over the globe.

IDE is jointly owned by two of Israel’s largest industrial enterprise groups: ICL - one of the world’s leading fertilizer and specialty chemical companies, and Delek - a leading energy and infrastructure group.