YOUR PARTNERS IN THERMAL DESALINATION
MECHANICAL VAPOUR COMPRESSION (MVC)
Proven Expertise | Leading Technology | High Reliability

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, standalone MVC solutions

After pioneering thermal desalination for four decades, IDE is the industry’s most experienced provider and the source of its most advanced technologies.

IDE’s self-contained MVC units are a reliable, cost-effective desalination solution for refineries, process industries, power stations and remote development sites, perfect for when electricity is the only source of power. Dozens of enterprises with a critical need for stable and reliable sources of process and boiler feed water have deployed the MVC as an affordable, low-maintenance, work horse desalination solution.

IDE’s MVC units range in capacity from 250 to 3,000 m³/day and can be deployed in parallel to multiply production.

An automated, energy-efficient approach

IDE’s MVC concept utilizes a highly efficient ‘falling film’ distillation process, with an innovative application of the heat pump principle. This allows each MVC unit to create a continuous flow of highly pure water (1-5 ppm) while consuming an optimal quantity of externally supplied electricity. Throughout the process, energy is conserved and re-used, making the entire process highly energy efficient.
Key features of MVC plants

- **Unique patented compressor technology** - reliable, field-tested technology delivers highest efficiency compression
- **Fully-automated operation with low maintenance**
- **Heat transfer bundles** - made of a special aluminum alloy suitable for seawater applications
- **Feed spray system** - non-clogging, corrosion-proof acetyl spray nozzles optimized for wetting requirements
- **Skid-mounted steel frame** - a compact support structure that houses all the unit’s operating and process control modules including pumps, motors, piping and instrumentation
- **Air removal condenser** - an efficient auxiliary condenser to evacuate non-condensable gases and seawater feed de-aeration

IDE’s leading partnerships in MVC desalination

IDE works in partnership with dozens of customers worldwide with MVC technology, delivering higher performance and unmatched reliability and availability. Starting with fast and easy installation, IDE’s MVC desalination plants deliver continuous uninterrupted desalination, independent of waste heat cycle.

**Sarlux – the world’s largest MVC desalination plant**
Operating successfully since 1999, Sarlux is recognized globally as a leading showcase MVC desalination plant. It has an optimized design that delivers highly cost-effective, reliable operation with low energy consumption and can use steam power to further reduce operating costs.

**Tocopilla – one of Chile’s largest desalination plants**
1,400 kilometers north of Santiago, in the coastal region of the world’s most arid desert, the Tocopilla desalination plant has been operating since 1996 according to original specifications with minimal maintenance.

**Moss Landing, California, USA**
Delivering clean water since 2002 with very high reliability and availability, especially impressive given the stringent energy and environmental restrictions of the State of California.
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.