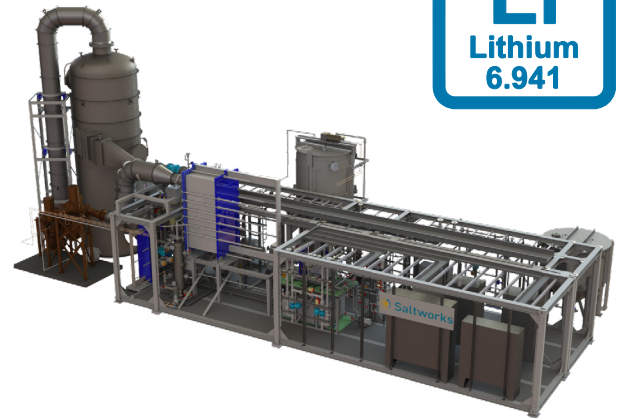


SaltMaker MVR

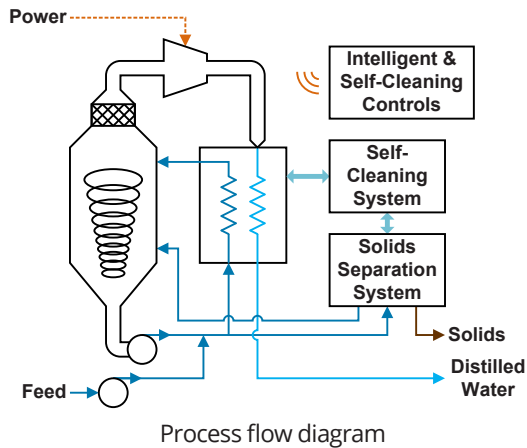
Electrically Driven Lithium Concentrator & Crystallizer

- Maximize yield by concentrating lithium chloride with reliable, economic evaporation, or produce lithium hydroxide solids
- Crystallize 9,600–93,000 tonnes per year of lithium hydroxide monohydrate as lithium carbonate equivalent (LCE)
- Modernized mechanical vapor recompression (MVR) evaporative crystallizer comes with integrated solids management
- Robust, top-quality build offers intelligent automation for self-cleaning and ease-of-operation
- Modular blocks for rapid, low-cost site installation



3D render of a fully assembled SaltMaker MVR plant

Concentrate LiCl or Crystallize LiOH



In-house assembly of a SaltMaker MVR plant

Concentrating, Refining, Converting Experts

We are focused on concentrating, refining, and converting lithium chloride solutions to battery- or technical-grade lithium products.

Low-Cost Install and Fast Start-Up

Built from pre-assembled and factory-tested modules for easy, low-cost installation at site.

Intelligent Automation

Intelligent automation with self start-up, capacity control, hibernation, and safe shut down. Built-in heat exchanger monitoring and cleaning.

Battery-Grade Solid Salt Production Packages

Options available for comprehensive solids production and management. Systems include an integrated decanter centrifuge and solid slurry management.

Tightly Controlled Production and Supply Chain

Saltworks' factory builds systems at our quality-controlled production facility, with in-house supply chain and engineering.

Lithium Chemistry Expertise

Evaporation, crystallization, slurry management, and corrosion control require deep expertise. Saltworks' Ph.D. chemists and experienced engineers ensure your system is designed and built right for your application.

Utility Requirements

Thermal Source	Not required
Electrical Energy Consumption	40–60 kWh/tonne H ₂ O evaporated
Power	3-phase; voltage & frequency per customer site

Capacity, Performance & Size

Evaporation capacity increases with the number of evaporation vessels. Capacity of a vessel is based on one that can be shipped on roads without special considerations, such as wide loads or road infrastructure modifications. Saltworks delivers multi-vessel plants to achieve modular scale-up.

Evaporation Capacity	1 vessel: 96–312 tonnes per day 2 vessels: 310–620 tonnes per day 3 vessels: 620–930 tonnes per day
Typical Operating Pressure	40 kPa absolute (60% vacuum)
Evaporator Size	Modules, standard shippable skids: 1 vessel plant: L65' x W25' x H30'
Crystallizer Size	Add decanter module; size varies based on solids load

Primary Features

Cost-Effective	<ul style="list-style-type: none"> • Rapid site installation: place frames and connect modules • No pre-treatment required • Higher up-time through reliable design and sound automation
Quality Delivered	<ul style="list-style-type: none"> • Tier 1 components, including heat exchangers, vapour compressors, brine circulation pumps, instrumentation, electrical and controls • Proactive and responsive project management inclusive of project integration • Excellent documentation and training packages
Reliability	<ul style="list-style-type: none"> • Smart process design for reliable solids production • Avoids scale caused by conventional boiling evaporation on heat-transfer surfaces • Self-cleans while running
Durability	<ul style="list-style-type: none"> • Corrosion-resistant construction materials balanced with project-specific economics
Automation	<ul style="list-style-type: none"> • Automated self-cleaning, start, stop, and capacity control: ramp from 25% to 100%, or hibernate at 0% while circulating • Programmed to remove scale before it becomes irreversible • High-quality instrumentation and sensors package • User-friendly graphical interface and controls that offer remote login, data logging, and trend analysis • Variable frequency drives (VFD) for energy efficiency

Standard Package & Options

SaltMaker Plant	Complete packaged system, from inlet to discharged water and solids; arrives with technician to support your installation
Training & Support	On-site training and commissioning; ongoing support comes with videos, tutorials, checklists, and remote assistance
Additional Options	<p>Ongoing operational support:</p> <ul style="list-style-type: none"> • Remote Operations Asset Management (ROAM): 24/7 remote monitoring and customizable daily reports • Operations packages: Saltworks operates SaltMaker MVR on-site