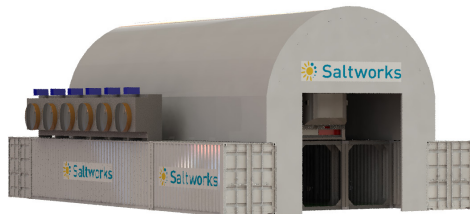
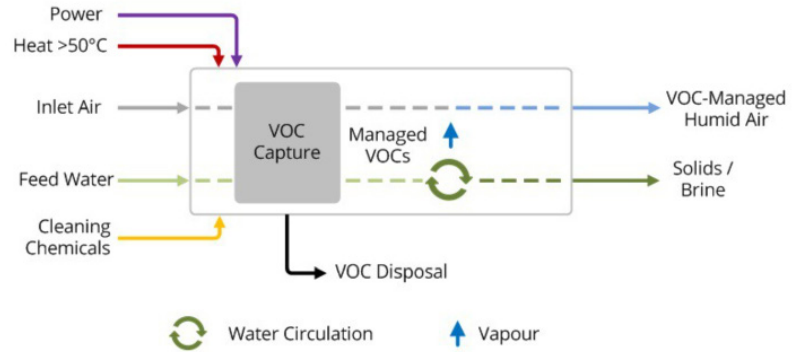


SaltMaker AirBreather Evaporator Crystallizer

Low grade heat brine concentrator or zero liquid discharge (ZLD) system:

- Zero contact of wastewater to atmosphere
- Guaranteed to meet all emissions targets, including: VOCs, methanol & particulates
- Two options: fresh water for surface discharge returned, or volume reduction without freshwater returned
- Cost effective & rugged
- Smart design for reliability
- Optimized for managing oil & gas brines with lowered costs, but requiring higher thermal energy compared to SaltMaker MultiEffect.



AB100
Optionally Tented



AB100
Untented

Reliable

High redundancy to perform in harsh, demanding environments. Constructed with durable, non-stick, non-corroding wetted parts.

Volatile Management System

Built-in system to capture and safely dispose of VOCs and meet air emission standards.

Rapid Deployment

Modular design enables rapid transport and assembly at site. Pre-fabricated ISO container blocks for easy transport and install.

Simple Solids Management

No chemical pre-treatment or softening sludge required. A single-step process discharges solids in bags or bins for easy handling.

Cost Effective Operations

Intelligent automation maximizes performance with capacity control, self-cleaning, and self-diagnosis.

Total Service and Support Options

Volume reduction service, complete package delivery, and installation options.

General Specifications

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|--------------------------------------|---|
| Thermal Source | Any source (>50°C, 90°C preferred). Use low grade heat to treat water. ~4 GJ/m ³ (4x SaltMaker MultiEffect due to single effect). |
| Electrical Energy Consumption | ~30 kWh/m ³ for brine production |
| Voltage | Any voltage, 3 phase, 50/60 Hz |
| Brine Concentrator De-Rate | Concentrate to 450,000 mg/L; de-rate by 20% |
| Crystallizer (Solids) De-Rate | Produce solids; de-rate by 40% |

Capacity & Size **AB100**

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|---|---------------------------------|
| Clean Water Removal Capacity (Evaporator non de-rated) | 100 m ³ /d (630 BPD) |
| Brine Concentrator Size | L70-90' x W40' x H25' |
| Crystallizer (Solids) Size | L90-100' x W40' x H25' |

Primary Features

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|--|--|
| Cost Effective | No direct contact of wastewater to atmosphere. Only VOC-treated, distilled water contacts atmosphere. |
| Differentiation From Other Open Evaporators | <ul style="list-style-type: none"> • Produces a concentrated brine or solids • No combustion by-products • No hot plume (cooling tower, vapour instead) • No corrosion • Volatiles management • Single modular package |
| Emissions Management | Proprietary — not for public disclosure. Contact Saltworks for project assessment. |
| Modularity | Expandable with your needs. ISO blocks movable to new sites. |
| Safety | Low pressure, low temperature, modules slide in and out for inspection and maintenance. No confined spaces, easy lock-out, and ergonomic design. |
| Reliability | Smart process design for reliable slurry or solids production. Avoids conventional boiling and evaporation on heat transfer surfaces, which causes scale. Self cleans while running. |
| Durability | Non-corroding, non-stick, no pressure vessels (atmospheric pressure): <ul style="list-style-type: none"> • Pipework: UPVC and CPVC. • Modules and tanks: gel-coated, fibre-reinforced plastics. • Pumps: engineered plastics, no wetted metallic parts. • Heat exchangers: titanium, non-boiling (no boiling nuclei scaling). |
| Automation | <ul style="list-style-type: none"> • Automated self-cleaning, start, stop and capacity control. Ramp up from 25% to 100%, or hibernate at 0% while circulating. • Programmed to remove scale before it becomes irreversible. • High quality instrumentation and sensors package. • PLCs with 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

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|--------------------------------------|--|
| SaltMaker AirBreather Service | Saltworks provides a brine volume reduction and removal service based on actual volumes treated. Saltworks delivers a complete packaged system, from inlet to discharged treated water and solids, installed on your site, along with experienced operators and support staff to ensure highest up-time and reliability. |
| Training & Support | On-site training and commissioning. Ongoing support with videos, tutorials, checklists, and remote assistance. |
| Thermal Energy | Waste heat conversion (>50°C), low pressure steam, hot water, or gas-fired options. |