

XtremeRO

Advanced Flexible Reverse Osmosis

- Concentrate brine up to 130,000 mg/L TDS
- Available in 600, 1,200 and 1,800 psi with RO and UHP RO membranes
- Modular, factory-built systems with built-in smart automation to reduce installation costs & downtime



Full-scale XtremeRO plant

Uni-RO: Standardized, Repeatable Systems

Uni-RO is Saltworks' modular, factory-built and tested architecture shared across XtremeRO, FusionRO, and SelectNF.

All systems use the same core skid, frame, and components—only pressure ratings and membrane types vary. This enables rapid deployment, scalable infrastructure and lower installation costs.

Minimize Brine Volume

Achieve higher brine concentration by reaching osmotic pressure limits, made possible by removing scaling ions with Saltworks' BrineRefine chemical reactor.

Intelligent Automation, System View

Optimize performance with intelligent advanced controls that simplify operation, protect membrane health, and provide total system monitoring.

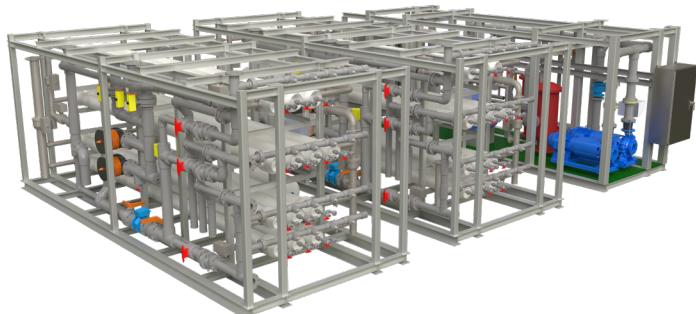
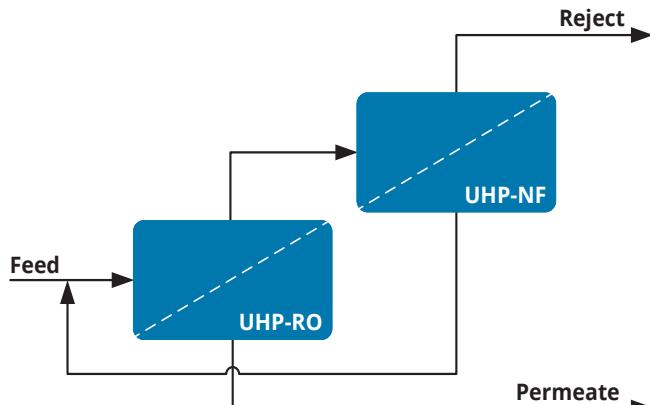
Factory Built and Commissioned

Built from pre-assembled and factory-tested modules with all equipment on board a single skid for low-cost, plug-and-play installation at site.

FusionRO

Hybrid Membrane Brine Concentrator

- Concentrate brine to over 200,000 mg/L TDS
- Cascaded RO-NF circuits with ultra-high pressure membranes



3D renders showing Uni-RO architecture

Process Flexibility

React and automatically adjust to changing chemistry and capacity requirements. Dynamic recovery control when paired with Saltworks' real-time scaling sensors.

Integration

Integrate with any RO system, tying upstream chemistry adjustments to downstream brine management through optimized processing and controls.

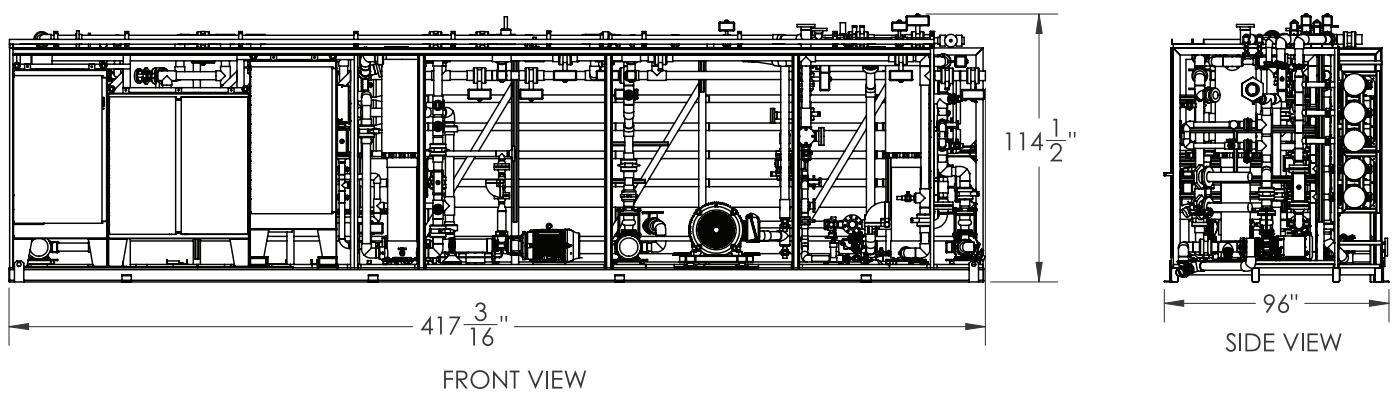
Total Support Operations

Complete, packaged delivery and installation options: remote monitoring, 24/7 expert assistance, and predictive maintenance.

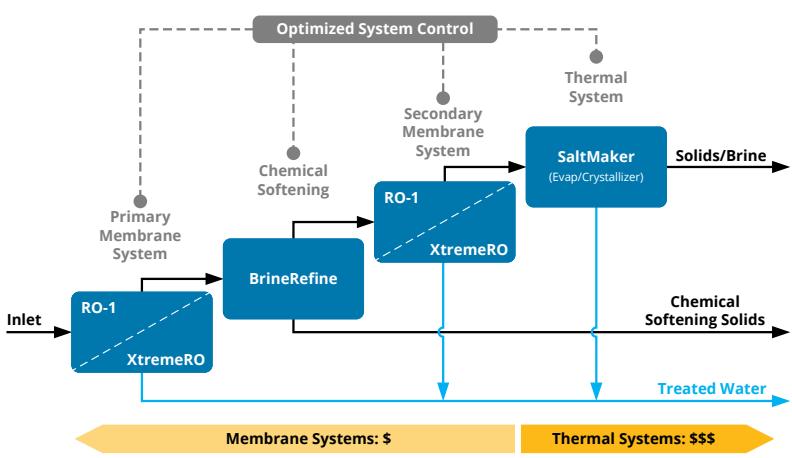
Operating Specifications

	1200	1800	FusionRO
Membranes	Seawater RO	UHP RO	UHP RO/NF
Maximum Pressure	1,200 psi ~82 bar	1,800 psi ~124 bar	Varies
NaCl Concentration Limit (mg/L)	80,000	130,000	>200,000
Na₂SO₄ Concentration Limit (mg/L)	140,000	220,000	>300,000
LiCl Concentration Limit (mg/L)	58,000	94,000	~180,000
(NH₄)₂SO₄ Concentration Limit (mg/L)	135,000	215,000	N/A
Typical Energy at Peak (kWh/m³ permeate)	6	8	~12
Capacity (25 vessels)*	2,500 m ³ /day ~458 GPM	500 m ³ /day ~91 GPM	Varies

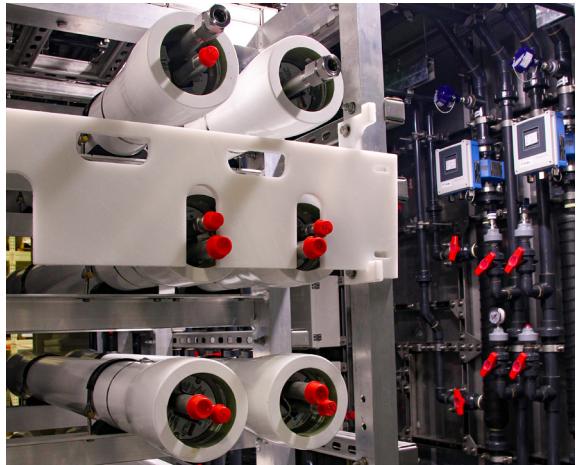
* Peak capacity stated without de-rates



Modularized XtremeRO skid with all systems on board



XtremeRO & FusionRO reduce downstream thermal treatment capacity



UHP RO/NF vessels inside a FusionRO skid