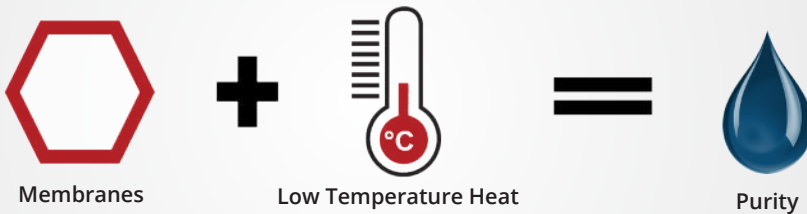




KMX's hollow fiber, membrane distillation (HF-MD) technology offers a unique solution to brine management problems and a critical unit operation for reaching zero liquid discharge. The HF-MD process recovers maximum, high purity water for reuse or discharge from challenging industrial waste streams. KMX's systems are advantaged over conventional evaporator/crystallizer systems with higher recovery rates, more efficient brine saturation, higher capacity factors and significantly lower energy requirements. Our HF-MD systems have low maintenance requirements, smaller footprints and are modular, scalable and easily configurable for a wide range of waste streams.

Recovering Maximum Value from Industrial Wastewater



KMX's proprietary membrane systems offer the **lowest cost treatment** and **highest purity recovery** options for difficult to treat industrial waste waters.



Applications

- Brackish water reverse osmosis (BWRO)
- Seawater reverse osmosis (SWRO)
- Oil & gas produced water
- Metal/mining salt recovery
- Bionergy/sugar recovery

High Quality Recovery

40-60% higher recovery rates over RO alone provides overall water recovery rates of up to 97%.

Low Maintenance

No scaling of membranes or heat transfer surfaces.

Lower Energy

80% less energy required per unit of water recovered compared to conventional evaporators/crystallization.

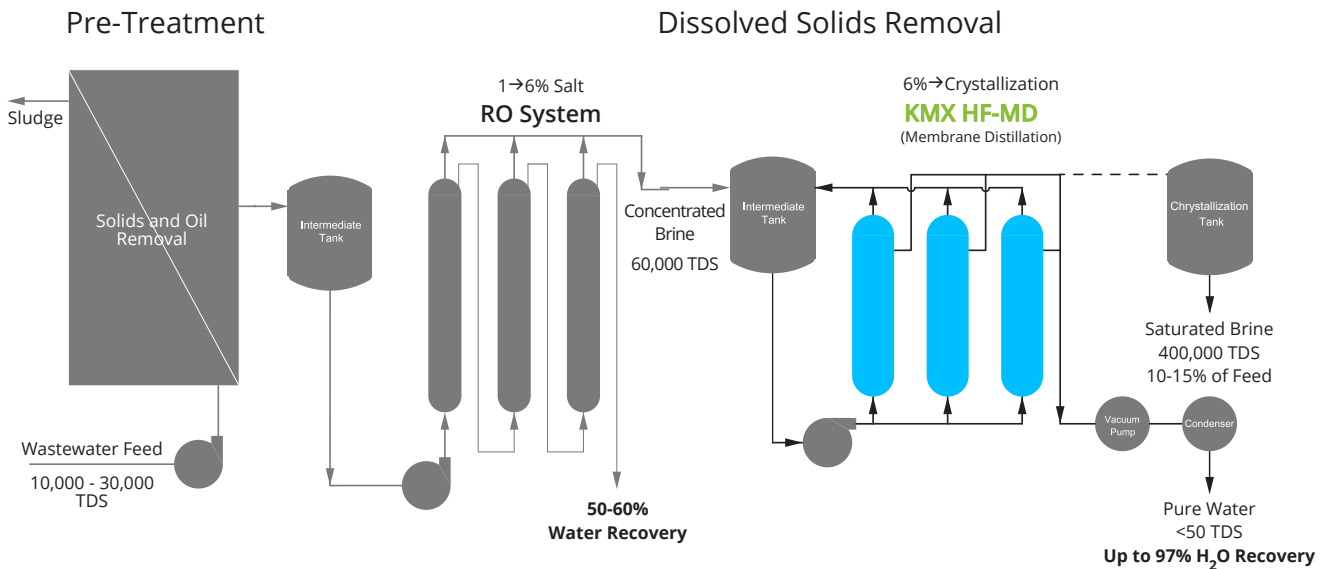
Lower Cost

High brine concentration reduces disposal costs by 25% or more.

System Design and Performance Parameters

Capacity (gal/min of feed water processed)	10-50 gpm	50 gpm (270m ³ /day) is the largest standard module size. Scaling is achieved by adding modules.
Feedwater TDS Level	<240,000 ppm TDS (24% Salt)	At TDS <60,000 ppm, KMX adds an RO process to bring concentration to highest efficiency for HF-MD treatment.
Treated Water Quality	<50 mg/L TDS	Distilled water quality assuming no VOCs present. Able to remove barium and ammonium.
Treated Water Volume	Up to 97% brine water recovery	At point of crystallization, crystals fall to bottom of the tank for removal, while the membrane continues to remove water.
Concentrated Brine for Disposal or Sale	5-15% of input volume	5-15% of input volume, significantly reducing the cost of disposal. Could be converted to saleable salt.
System Footprint	50 gpm modular unit (~20ft high x 25ft wide x 30 ft long)	Not including process or storage tanks and clarifier.
Operating Temperature	40-70 deg C	Thermal energy self-sufficient. Electrical energy needed to run pumps, compressor, etc.
Operating Pressure (vacuum)	<15 psig	
Downtime	System operates in continuous 24/7 flow.	Filters and membranes can be back washed as required in 1 hour.

KMX's Brine Concentration Process



Contact Us

For more information, please contact us at:

KMX Technologies, LLC

T: 254-640-4938 | info@kmxtechnologies.com