Brine Concentrator System
HPD® Evaporation and Crystallization
**System Description**

The system is based on HPD® Falling Film Evaporation Crystallization technology to treat a variety of waste streams followed by management of waste brines for disposal (as a concentrated or solid waste brine).

This Brine Concentrator System can be supplied as a modular, skidded system and designed to treat feed from RO reject, ponds, or untreated brines without complex pretreatment:

- Veolia Brine Concentrator System offered at six different capacities.
- High-efficiency, Mechanical Vapor Recompression (MVR) driven
- Process designed with seed recycle system to prevent and resist scaling.
- Materials of construction minimizes corrosion
- Used for volume reduction or Zero Liquid Discharge (ZLD)

**Benefits & Features**

**Environmental Performance**

- Water recovery up to 99%
- High-purity recovered water suitable for reuse, discharge, or aquifer reinjection
- Produces a concentrated brine which can be sent to evaporation ponds or ZLD crystallizer.

**Modular Design**

- Rapid deployment to site
- Shippable by standard, over-the-road transport
- Small footprint

**Applications**

- Pond volume reduction
- Evaporator blowdown treatment
- Pilot well testing
- Zero Liquid Waste (ZLW) requirements

**Simplified Flow Diagram**

**3D Rendering**
The **Brine Concentrator System** is designed as a modular and skidded system that can be shipped by over-the-road transport. This allows rapid deployment to site while reducing overall installation costs.

The tables below outline the content of each module and skid as well as associated equipment supplied for the system.

### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Module #1</td>
<td>Preheater, Distillate Pumps, Distillate Tank, Seed System</td>
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<tr>
<td>Core Module</td>
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<tr>
<td>Packaged Skid</td>
<td>Feed Strainer</td>
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</tbody>
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### Ancillary Equipment Included

- Feed + Concentrate Tank • Platforms and decking
- Instrumentation, control panels • Insulation
- Valving • Electrical, wiring
- Piping • Motor starters (option)

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**General Arrangement**

[Diagram showing the layout of the Brine Concentrator System]
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