Minimal Liquid Discharge (MLD) Solution

A water management approach that can help you increase recovery and reduce costs.

Achieve up to 95% liquid discharge recovery but at a fraction of ZLD’s costs.
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1. **IntegraFlux™ XP Ultrafiltration Modules**
   - High-productivity ultrafiltration modules with industry-leading membrane area and high-permeability XP Fiber
   - High-mechanical-strength PVDF fiber with excellent chemical resistance providing long membrane life and reliable operation
   - Outside-in flow configuration allowing a wide range of solids in the feedwater minimizing the need for pretreatment processes and reducing the backwash volume compared to inside-out configurations

2. **AmberLite™ IRC83 H WAC Resin for Hardness Removal**
   - Up to 30% more operating capacity than current weak acid cation resins
   - Fewer regeneration cycles reduce waste volume up to 15%
   - Superior physical stability yields long resin life

3. **FilmTec™ Fortilife™ CR100 RO Elements**
   - Up to 50% less frequent cleanings due to biofouling
   - Improved hydraulic balance for low organic fouling and lower energy
   - Reduced rate of flux loss in challenging waters
   - Highly cleanable membrane chemistry
   - Up to 10% lower energy operation
   - High permeate quality to enable blending with higher TDS for reuse

4. **FilmTec™ Fortilife™ XC70 RO Elements**
   - Maximize purity of reuse water while concentrating the brine to > 70,000 ppm TDS within standard operating limits
   - Fouling resistance
   - Increased productivity
   - Less frequent cleaning, more up-time, longer element life

5. **FilmTec™ Fortilife™ XC80 RO Elements**
   - Lower brine volume and maximize recovery by concentrating the brine to > 80,000 ppm TDS within standard operating limits
   - Fouling resistance
   - Reduce discharge with standard RO system designs
   - Less frequent cleaning, more up-time, longer element life
   - Low-energy RO operation

6. **DuPont™ Specialty Membranes UHP RO Elements**
   - Reduce brine volume and achieve concentrations of 100,000 – 200,000 ppm TDS, thus significantly reducing discharge volume and downstream processes
   - Distinctive ultra-high-pressure element construction allowing operation up to 120 bar (1,740 psi)
   - High-pressure, fouling-resistant FilmTec™ SW30 flat sheet

7. **FilmTec™ Fortilife™ XC-N and XC-N HP NF Elements**
   - Highly selective membrane with high monovalent ion passage and divalent ion rejection
   - Purified brine solution for reuse
   - Increases the concentration and weight fraction of divalent ions in the concentrate stream for more efficient evaporator / crystallizer operation in ZLD systems
   - Less dissolved solid wastes
   - Low-energy operation

Have a question? Contact us at: dupont.com/water/contact-us