

A Revolution in Bioprocessing

New membrane technology is at the heart of a new separations option to increase sustainability while improving product quality and reducing operational costs.

Challenges in Bioprocessing

Difficult Streams

- x High organics content makes it challenging to process
- x Valuable products may be damaged by high shear
- x Charge interactions increase difficulty of separations

Strict Product Specifications

- x Purity requirements demand expensive processing
- x Product loss to fouling and breakthrough reduces yield

Large Environmental Footprint

- x Water intensive
- x Generates high strength wastewater
- x Heavy chemical use for cleaning

ZwitterCo-Enabled Solution

Fast and Easy Filtration



- Consistent high fluxes
- No interactions with products
- Protect products from shearing and agglomeration

Better Quality Product



- Higher achievable concentrations
- Precision separations increase purity
- Maximizes yield with superfiltration level retention

Enhance Sustainability



- Wastewater treated for reuse
- Freshwater demand reduced
- Valuable co-products recaptured
- Minimal cleaning reduces chemical demand

ZwitterCo Enabling Technology

ZwitterCo's breakthrough membrane technology enables filtration for the most challenging separations. The membrane can handle streams with high levels of oil (in emulsions). It offers full performance recovery after a mild maintenance wash, and lasts for years in streams that would ruin standard membranes in days.

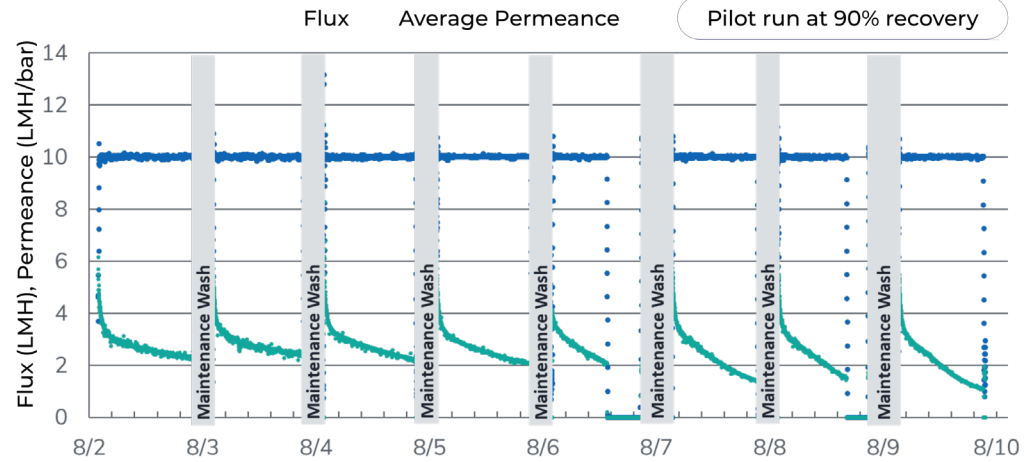
See the difference in this bioprocessing example:



(Left to right) Raw Feed, ZwitterCo SF Feed, ZwitterCo SF Permeate, ZwitterCo SF Concentrate

Proposed Solution

- Greenfield project
- Integrated filtration and thermal solution achieves >98% combined recovery and delivers reuse quality
- Concentrated organics will be turned into animal feed additive
- Small footprint and modularity allows for future plant expansion



Ready to see the difference at your facility?

Contact us to learn more about our solutions or to try our products in your facility.

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