

Technology Description:

- Porous stainless-steel tubular membranes (3/4") with internal titanium dioxide coating for abrasion resistance
- Robust design handles high temperatures, high solids, high viscosities, and extremes in pH
- Cleans quickly using standard chemistries
- Welded and bolted construction in ASME pressure vessel
- Designed to last 10-15 years in challenging applications with little downtime, maintenance, or repair
- No internal moving parts with one external centrifugal pump
- Can operate in batch-mode or continuously and be mounted horizontally or vertically
- Proudly manufactured in the USA



Performance

- Solids-laden liquids are readily filtered, producing a transparent liquid filtrate and concentrated product
- Removes nearly all suspended solids, phosphorus, oils, bacteria/pathogens, and a large fraction of organic matter
- Permeate recoveries as high as 90%



Data from filtering raw liquid swine manure (lbs/1000 gal):

| Parameter | Feed | Filtrate | Conc. | Removal |
|-------------------|------|----------|-------|---------|
| Dry Matter (%) | 4.3 | 1.3 | 10.6 | 69% |
| Total Nitrogen | 34.4 | 18.9 | 59.9 | 45% |
| Phosphorus (P2O5) | 14.1 | 0.9 | 41.4 | 93% |
| Potassium (K2O) | 23.5 | 23.0 | 23.5 | 2% |
| Sulfur | 9.1 | 7.6 | 11.5 | 16% |



Facility Benefits

- Manure can be filtered to create low phosphorus tea-water (filtrate) and concentrated fertilizer (concentrate)
- Reduce manure hauling/spreading costs while optimizing nutrient application and uptake
- Opportunities to capture phosphorus and carbon credits through improved management
- Opportunity to use pathogen-free and solids-free filtrate for washing or flushing

Please call us today for a customized quotation and to learn more about our pilot testing services.