

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



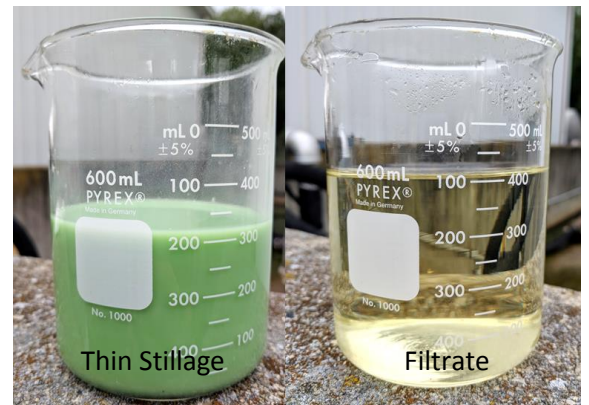
Performance

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



Data from filtering thin stillage:

Parameter	Feed	Filtrate	Conc.	Removal
Total solids (%)	3.3	1.55	11.7	53%
TVS (%)	2.9	1.1	11.1	62%
TSS (mg/L)	18,600	353	103,000	98%
Volatile acids (mg/L)	2,190	1,280	1,280	42%
TKN (mg/L)	1,500	622	5,800	59%
Phosphorus (mg/L)	916	755	1,396	18%
Potassium (mg/L)	1,328	1,120	1,162	16%
Sulfur (mg/L)	200	110	500	45%



Facility Benefits

- UF permeate is ideal to reuse as backset since it contains no oils, no bacteria, and fewer volatile acids
- Increases the amount of thin stillage usable as backset
- UF concentrate is a higher solids slurry for incorporation into DDGS and reduces energy required for evaporation
- May increase efficiency of corn oil recovery by reducing oil recycled in raw thin stillage to fermenters

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