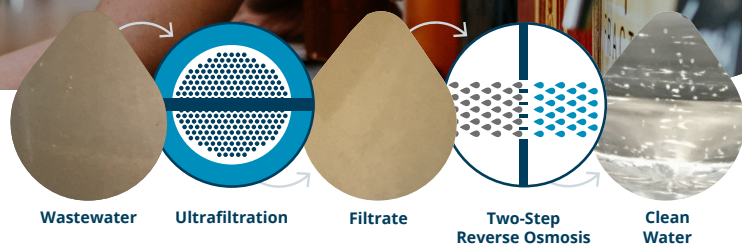




BREWERY FILTRATION



OUR SOLUTIONS

Benefits & Impacts

Reduce wastewater disposal costs, concentrate nutrients, and reclaim clean water for reuse or discharge.

ULTRAFILTRATION (UF)

- Recover 95-99% of raw or digested wastewater as a transparent filtrate free of suspended solids and pathogens with significantly reduced organic matter, nitrogen, and phosphorus
- Filtrate can be sewer discharged with minimal or no surcharges, land applied through irrigation systems, or further purified with our TSRO system
- Concentrate is a solids-rich slurry that can be cost effectively digested onsite or transported offsite to produce value-added products

TWO-STEP REVERSE OSMOSIS (TSRO)TM

- UF filtrate or screened wastewater is converted into clean water for reuse or discharge and a concentrated liquid fertilizer
- Water reclamation reduces wastewater hauling and disposal costs while decreasing freshwater consumption

FACILITY BENEFITS



Reduce surcharges for sewer disposal by using UF as a positive barrier to discharge



Purify wastewater onsite to reduce freshwater consumption



Reduce hauling and disposal costs by concentrating waste streams



Ensure permit compliance and simplify wastewater management

HOW IT WORKS

Technology & Performance

ULTRAFILTRATION

- Proven, polymer-free technology with demonstrated results at numerous food and beverage facilities
- Robust design handles high temperatures, high solids, high viscosities, and extremes in pH
- Designed to last 10-15 years in challenging applications with little downtime, maintenance, or repair
- Cleans quickly and automatically using standard cleaning solutions
- Can operate in batch or continuous modes and be mounted horizontally or vertically

TWO-STEP REVERSE OSMOSIS

- Proven membrane technology with demonstrated results at numerous food and beverage facilities
- Reduces volume of UF filtrate by 85-95%
- Highly reliable, non-biological, and polymer-free solution to purify UF filtrate
- Produces clean water ready for reuse or discharge and a value-added product high in ammonia nitrogen and potassium
- Highly automated design requires minimal operator attention

UF Equipment TSRO Equipment





OUR SOLUTIONS WORK

27%

of COD
concentrated
into 2% of raw
wastewater
volume

89%

of COD
concentrated into
2% of digested
wastewater
volume

88%

of nitrogen
concentrated into
2% of wastewater
volume

35-45%

of phosphorus
concentrated into
2% of wastewater
volume

Contact us today for a quote
844.934.4378

We will help you

- Reduce Wastewater Disposal Costs
- Enable Increased Production
- Reclaim Water



EXPLORING *Filtration*

Call to learn how a Wastewater Filtration System can help your facility. We will assess your current situation and recommend the best solution for you.



TESTING *Filtration*

We will pilot test your wastewater at our facility in Michigan and provide a thorough report and proposal for a full-scale system.



IMPLEMENTING *Filtration*

We deliver, install, and commission your new filtration system and teach employees how it works, ensuring it meets your expectations.



MAINTAINING *Filtration*

The filtration system will become an integral part of your facility and allows you to streamline and expand your operations, reduce water use, and minimize treatment costs.

RAW WASTEWATER FILTRATION PERFORMANCE

PARAMETER	RAW WATER	UF FILTRATE	UF CONC.	PERCENT REMOVED BY UF
Total suspended solids	1,020	7	N/A	99%
Total Chemical oxygen demand (tCOD)	10,340	7,510	25,300	27%
Total Kjeldahl nitrogen (TKN)	120	16	916	87%
Phosphorus (total)	39.5	21.9	160	45%

DIGESTED WASTEWATER FILTRATION PERFORMANCE

PARAMETER	RAW WATER	UF FILTRATE	UF CONC.	PERCENT REMOVED BY UF
Total suspended solids	1,260	13	N/A	99%
Total Chemical oxygen demand (tCOD)	2,434	267	16,470	89%
Total Kjeldahl nitrogen (TKN)	136	17	1,110	88%
Phosphorus (total)	41	26.6	131	35%