INTEGRATION OF THE ULTRAPURE®

- Integrates with tunnel and conventional washer configurations
- Can use existing tanks, pumps, and supply headers to move water
- Optional integration with ancillary treatment equipment for further dewatering and TDS removal
- System's range in size based on filtration volume and customer requirements
- Additional modules are offered in various diameters and quantities for scalability

SMART & DEPENDABLE

- ✓ *Chemical-free filtration*
- ✓ *100% stainless steel construction*
- ✓ *QC sensors for conductivity, turbidity, pressure, and temperature*
- ✓ *Early adoption driven by superior flux performance and membrane longevity*
- ✓ *Compact footprint & modular for expandability*
- ✓ *Remote access for easy monitoring and serviceability*
- ✓ *Membrane health monitoring*
- ✓ *Data Management & Reporting*

A VIABLE INVESTMENT

Reduce Wastewater discharge by 90% = UNMATCHED COST SAVINGS

Shrink water inlet & wastewater outlet size = Save big on water & sewer connection fees

Keeps you below the POTW limits = Lowers chance of contaminant surchages

Maximizes heat recovery from wastewater = Lower water heating expenses

Optimizing your formulas for reclaim water = Lower wash chemical spending

ROI = averages 0-3 years

ML-Systems

IN PARTNERSHIP WITH NORCHEM

ML-Systems ApS is proud to be Norchem Corporation's exclusive European distributor and systems integrator for the Norchem UltraPure Ceramic Water Filtration and Recycling System

ULTRAPURE®

WASTEWATER RECYCLING SYSTEM

- ✓ *Proven to recycle up to 90% of Effluent Wastewater*
- ✓ *Reduce energy cost for heating water by up to 85%*
- ✓ *Automated Clean in Place (CIP) technology*
- ✓ *Reduce FOG, TSS, TDS, BOD & COD's*
- ✓ *Designed to fit in any plant, big or small, with added capacity for future growth at less cost*

CONTAMINANT REDUCTIONS

COD up to	97%
BOD up to	93%
TSS up to	100%
(FOG) Oil and Grease up to	99%
Precipitated Heavy Metals up to	99%

OPERATING CAPABILITIES

Processes Wastewater Temp	up to 211°F
Wastewater	between 0-14 pH
Ceramic membranes process FOG	above 1000mg/L
Low pressures reduce power demand	40 - 90 psi

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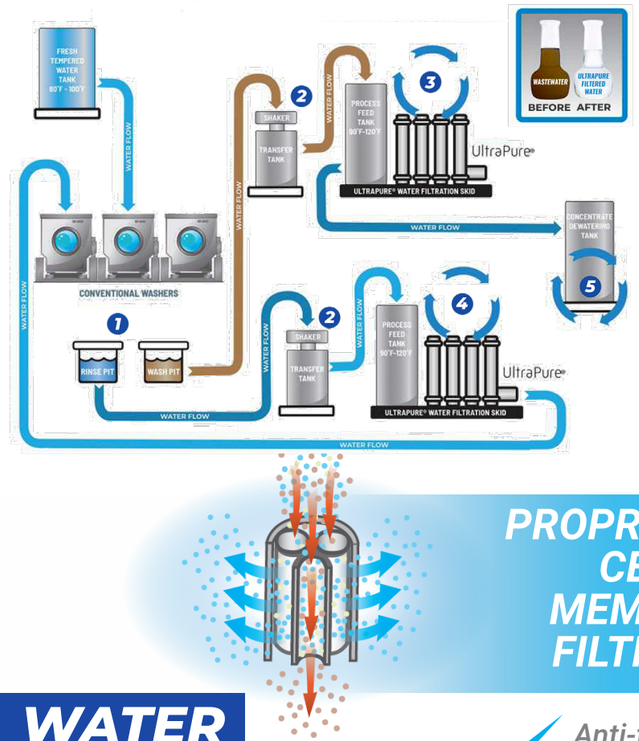
ULTRAPURE®

Advanced Ceramic Membrane Technology

The UltraPure® produces high quality recycled water for applications in commercial laundry, food processing, and many others with no added treatment chemicals. The ultra-filtration process uses an innovative ceramic crossflow membrane design that can **reclaim 100% of wastewater heat and reduce heating cost by 85%.**

THE PROCESS



1. *Heavy soil wash water and rinse water can be separated into 2 pits to maximize savings*
2. *Large solids & lint removed through MicroPure System*
3. *The hot recycled water is used on all wash steps*
4. *Rinse water can be treated separately and pumped to the tempered water tank*
5. *Contaminates removed during the filtration process are concentrated daily and disposed of periodically*

when combined with tertiary Reverse Osmosis filtration, the wastewater does not need to be separated between rinse and wash

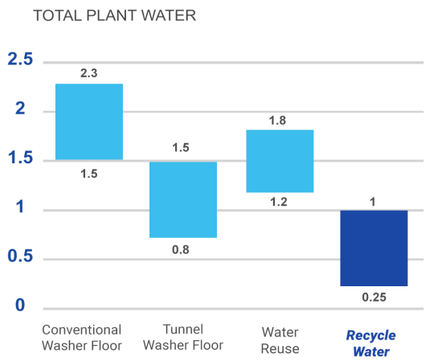
PROPRIETARY CERAMIC MEMBRANE FILTRATION

The UltraPure® can significantly reject water without bypassing to sewer or using a filter press.

- *Anti-fouling membrane material coating*
- *Membranes are chemically inert*
- *No annual filter replacement cost*
- *Average membrane lifespan is 10-15 years*
- *Low sensitivity to temperature, pH, chemical & mechanical abrasion*
- *Channels tolerate more suspended solids un-like hollow fiber and other tubular technologies*

WATER USAGE COMPARISON

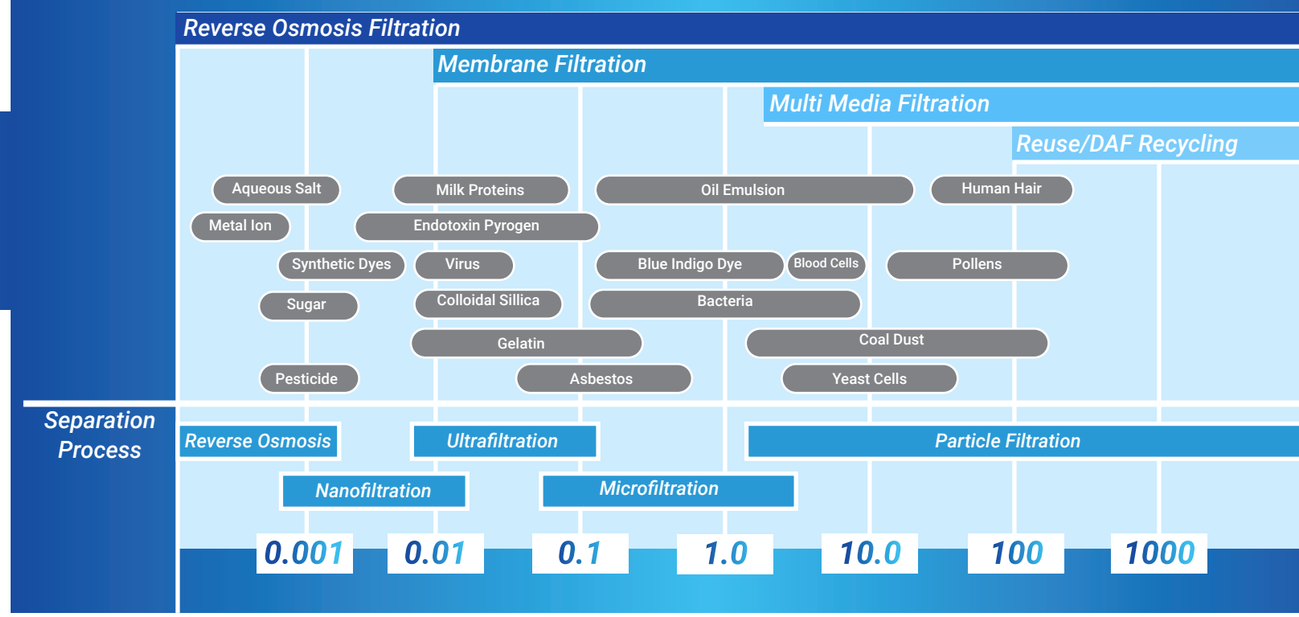
UltraPure® allows for optimal wetting of your textile, while still lowering your gallon/lb usage.



WATER QUALITY & CONSERVATION PARAMETERS

Parameter	Fresh Water	Reuse	Multi Media	DAF	ULTRAPURE®
Filtration Size	0.0001 µm	150 - 250 µm	2 µm	150 - 250 µm	.02 µm
TDS	<800 mg/L	1,000 - 1,200 mg/L	450 - 1,000 mg/L	1,300 - 1,800 mg/L	450 - 1,000 mg/L
TSS	<1 mg/L	181 mg/L	1 - 25 mg/L	25 - 50 mg/L	0 mg/L
pH	6.5 - 9.0 su	7.0 - 11.0 su	7.0 - 9.0 su	10.5 -12 su	8.5 - 10 su
Alkalinity	<10 ppm	5 - 15 ppm	5 - 15 ppm	150 - 300 ppm	5 - 200 ppm
Iron	<0.1 ppm	<1.5 mg/L	<0.5 mg/L	<1.5 mg/L	<0.1 mg/L
Hardness	<17 ppm	<30 mg/L	<30 mg/L	15 - 50 mg/L	<17 mg/L
FOG	0 mg/L	5 - 50 mg/L	0 - 50 mg/L	10 - 200 mg/L	0 - 5 mg/L
POTENTIAL COST SAVINGS					
Recycle/Reuse Savings		10% - 20%	50% - 75%	10% - 30%	50% - 90%
Energy Savings (water heating)		0%	25% - 30%	0%	50% - 85%
Wash Chemical Savings		0%	0%	0%	10% - 30%

RANGE OF FILTRATION



THE CHOICE IS CLEAR