

Ceramic Membrane Crossflow Liquid Filtration System



Nominal 7,000 gal/day capacity model shown

The Hilco Ceramic Membrane System is an ideal way to lower your filtration costs. The filtration system utilizes high-velocity “crossflow” across the membrane surface. The advanced-technology ceramic membranes deliver outstanding performance, durability, and cost-effectiveness. The robust filter design and high efficiency can help solve your tough filtration challenges. The filter is well-suited for multiple microfiltration (MF) and ultrafiltration (UF) applications. Available membrane pore sizes are 0.5 μm , 0.2 μm , 0.01 μm , and 0.005 μm .

Features and Benefits

- High surface area to unit volume
- Compact design
- Extended life with durable ceramic
- Chemically stable
- Broad pH range of 2-13
- Immune to chlorine attack
- Steam sterilizable
- Back flushable
- Suitable for aqueous and solvent/chemical streams
- High and sustainable flux rates
- Easy, less frequent membrane cleaning

Fluid Streams Processed

- Oil removal from wastewater streams
- Reclaiming solvents and chemicals
- Fruit juice and beverage clarification
- Aqueous wash solutions
- E-coat paints and lacquers
- CIP cleaning chemical recovery
- Catalyst stream recovery
- Industrial laundry



Membrane Filtration

1. Filter has 1800+ channels
2. Some channels are converted to permeate conduits
3. Permeate conduits allow the entire filter diameter to be effectively utilized
4. Patented membrane approach results in higher process flux

Typical Results from a Wastewater Stream

Component	Feed (ppm)	Permeate (ppm)
Oils, Grease	136	1.0
Pb	0.79	0.09
Ni	0.15	0.01
Cu	1.49	0.36
Zn	5.9	0.37

Specifications

Filter Sizes: 2.6" Diameter, 34" Long (27ft² surface area)
 5.6" Diameter, 34" Long (120 ft² surface area)
 1.05" Diameter, 12" Long (1.5 ft² surface area)

Standard Membrane Pore Sizes (microns): 0.5 µm, 0.2 µm, 0.01 µm, 0.005 µm

Operating Parameters: Maximum TMP of 60 psi
 Maximum inlet pressure 85 psi
 Maximum differential pressure 30 psi
 Maximum backpulse pressure 100 psi

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