

Drinking Water Membrane Skids



As well as providing disinfection and a superb quality permeate, membranes are proving more effective than other methods, without chemical disinfection byproducts. They are a fast, simple integration with existing systems. They operate automatically and membrane testing is integral. Save money and time spent on cleaning or replacing cartridge filters. Membranes last an average of 6 years.

Ultrafiltration:

Removal of TSS and turbidity

Up to 4-log reduction of bacteria and viruses.

Minimizes chlorine byproducts

Removal of TOCs with addition of a coagulant

Superb filtrate quality even with variable raw water

Requires CEB with chlorine and sometimes additional caustic, CIP; some membranes require only air scour

Flow per membrane averages 12-20 L/min

Max. inlet pressure 90 psi (6.25 bar)

Effluent turbidity <0.1 NTU

Flux 40-120 m²/hr (24-70 gpd)

Cost per membrane \$1000 and up

Nanofiltration:

Primarily for treating hard water

Removal of harmful organic matter (TOC > 80%, DOC > 80%) and color > 90%). TDS 50%

Typical permeate quality turbidity < 0.6 NTU

Six-log reduction of bacteria, and 4-log reduction of viruses.

Minimal salt rejection to maintain salt balance in the water, retaining healthy minerals such as Ca and Mg (Traditional NF or RO removes partial or almost of the beneficial minerals from the water).

Flux 60-180 LMH/membrane

Flow 12-36 gpm/membrane

50-225 psi (2-4 bar) operating pressure

Reverse Osmosis:

TDS and heavy metal removal

Up to 6-log reduction of bacteria and 4-log removal of viruses.

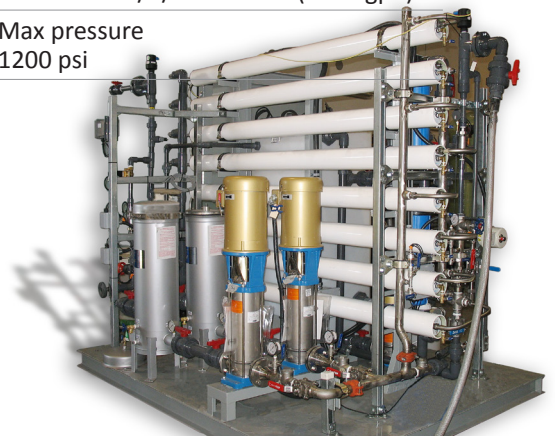
Effective removal of all minerals including salt 95-98%

Higher pressure requirement

CIP, CEB required, chlorine intolerance

Flow 34.8 m³/d/membrane (9000 gpd)

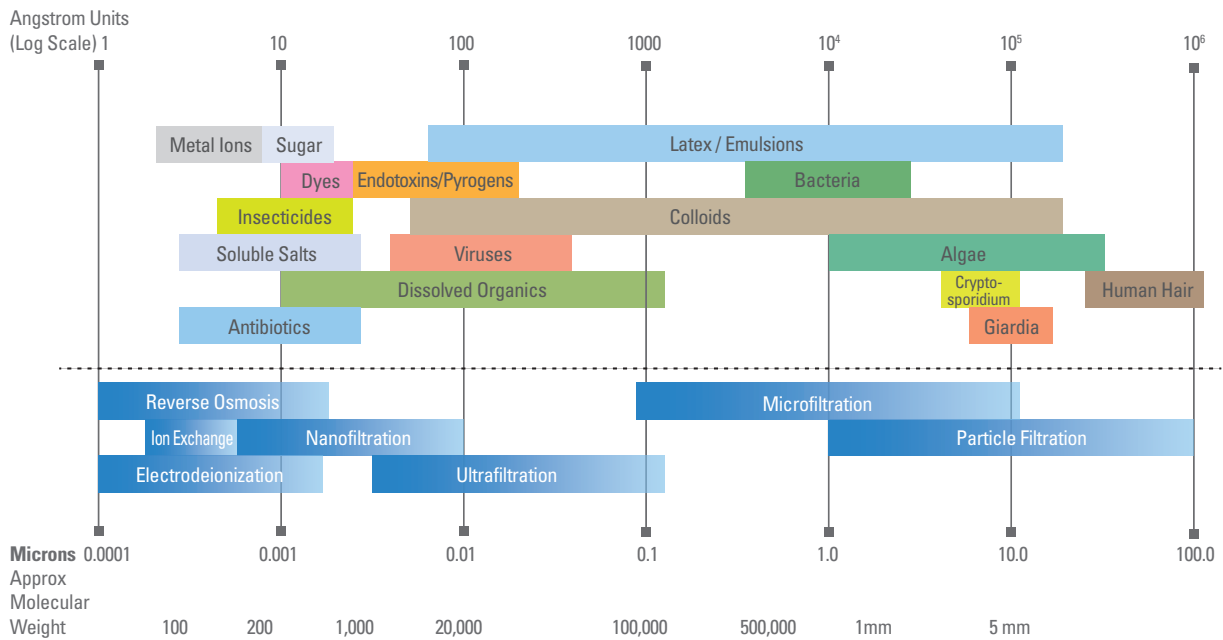
Max pressure 1200 psi



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Options:

- Containerized or skid-mounted for install inside existing building
- Backwash on separate skid or via existing water supply/hose
- Energy Recovery Device for RO
- Remote communications/controls/alarms via ethernet
- Intuitive touchscreen icons and controls (HMI)
- Extended maintenance plan



OEM for membrane manufacturers:



North American
award winning design
& manufacture



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