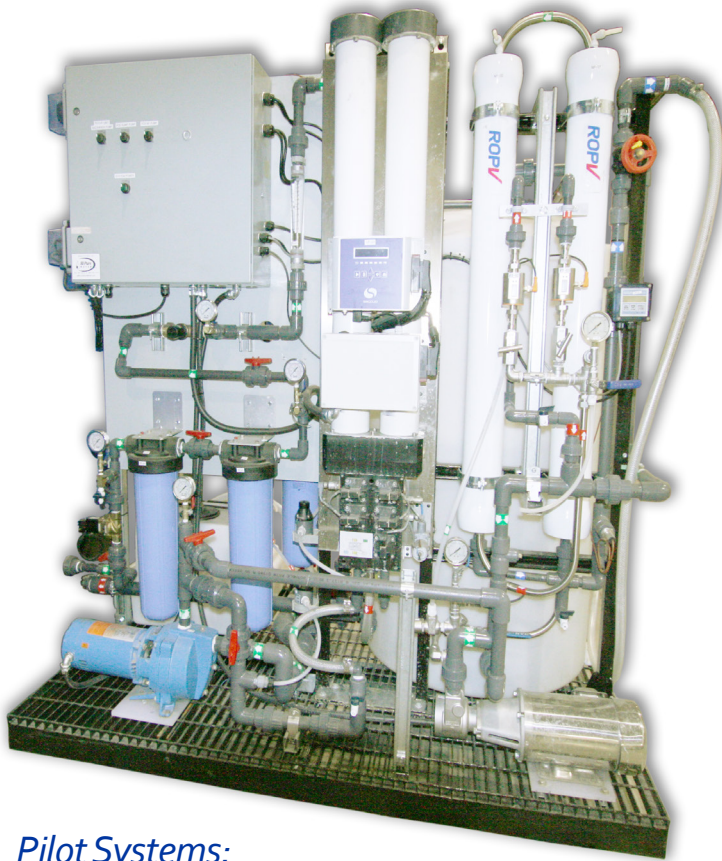


UF/NF/RO Pilot Unit



Pilot Systems:

- *Determine which treatment works most efficiently*
- *Prove concept and cost of scaled up system*
- *Test for seasonal variations*
- *Compare product(s) performance*

Producing 15 - 30 L/min (4-8 USGPM) of treated water, providing means to evaluate the effectiveness of membrane technology in dealing with any or all of the following:

- Suspended solids and precipitates reduction
- Organics reduction, particularly carbon
- Degree of protection against pathogenic cysts, bacteria and viruses
- Colour reduction
- Metals reduction, particularly aluminum and iron
- Trihalomethanes and haloacetic acid reduction

The pilot plant contains cartridge filters, a dual membrane UF or NF unit and a two-stage RO system. Two chemical dosing systems are included, sodium hypochlorite for backwash of the UF unit and anti-scalant for prevention of build-up on the reverse osmosis membranes.

Equipment included:

Low pressure, low energy membranes
Two cartridge filters
Turbidity meter 0 -100 NTU
Conductivity meter
Permeate and concentrate flow meters
Multiple pressure indicators
Hydro-pneumatic pressure tank
Backwash system (tank with sump pump)
Sodium hypo and anti-scalant dosing systems
Control panel for manual control of pumps
VFD drives for pumps

UF/NF/RO Pilot Unit

Operating parameters:

Pressure:	Typical 100 psi (689 kPa)
Acceptable raw water temperature interval:	1 - 49°C
Inlet flow:	18.9 L/min
Permeate flow:	11.6 L/min*
Concentrate flow:	7.3 L/min*
Est. TDS after treatment:	< 30 mg/L*
Est. turbidity after treatment:	< 0.1 NTU*
Recovery:	61% (*, minimum)

**approx, varies according to membrane chosen, pressure, raw water quality, etc*

Permeate and concentrate flows are adjustable by valves.

Permeate product water quality is manually monitored by means of a conductivity sensor

Materials of construction:

Fiberglass frame
Rigid FRP pressure vessels
Robust low energy RO membranes
PVC schedule 80 low pressure piping
Stainless steel high pressure piping
NEMA 4 Control enclosure
Steel skid mounted

*We are an OEM for all major brands of
UF/NF/RO membranes*



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