

Mobile Reverse Osmosis

Aquatech Mobile Solutions

Aquatech's Reverse Osmosis (RO) uses a semi-permeable spiral wound element to remove up to 99% of total dissolved solids (TDS) and bacteria from the feed water source. A high-pressure feed pump forces raw water into thin film membrane layers, allowing the permeate product water to collect in the center tube of the RO element. Water containing impurities and salts remains outside of the RO element and is rejected on the opposite side of the feed water inlet. Aquatech's mobile RO system can be configured as a single pass RO system capable of producing up to 500 gpm* permeate or a double pass system capable of producing 250 gpm permeate.



Salient Features:

- Flows up to 500 gpm
- PLC Automated System
- Touch Screen Controlled
- Optional Remote Monitoring available

Applications:

- TDS removal
- Desalination
- Power Plants
- Electronics industries
- Automotive industries
- Oil & Gas industries

System Requirements:

- Feed water silt density index (SDI): ≤ 5
- Max feed water temperature: 100° F
- Min feed water temperature: 50° F
- Max feed water pressure: 50 psig
- Min feed water pressure: 30 psig
- Electrical requirements:
 - 480 VAC/3 Ph/60 Hz
 - 120 VAC/1 Ph/60 Hz

System Connections:

- Feed water: 6" flange connection
- Permeate water: 6" flange connection
- Reject water: 3" flange connection
- CIP inlet & outlet: 3" flange connection
- Three & single phase disconnect switch

System Equipment Details:

- Cartridge filter vessels: 2
- Cartridge filter micron rating: 1 μ
- RO booster pumps: 2
- Pump motor rating: 75 HP (VFD controlled)
- RO system units: 2
- RO unit configuration: 6 x 3 (7 membranes)
- RO membranes: 8" elements, typical BW
- Chemical dosing system quantity: 3
- Chemical dosing: Antiscalant, sodium bisulfite & caustic (interpass dosing)
- Chemical dosing system: 1 drum & 1 pump for each chemical
- Piping: PVC SCH 80 & SS SCH 10 for high-pressure service
- Instruments: flow transmitter, pH analyzer, ORP analyzer, conductivity analyzer, temperature transmitter, pressure transmitter, pressure gauge

Permeate Water:

- Single pass: up to 500 gpm*
- Double pass: up to 250 gpm*
- Single pass recovery: 60 - 80% (TDS feed dependent)
- Double pass recovery: $\leq 90\%$

*Permeate capacity depends on feed water quality & temperature

System Details:

- Trailer (L x W x H): 53' x 8.5' x 13.5'

