

Mobile Pilot Demonstration of OPUS™ Technology

Technology Benefits

- › High Water Recovery Rate
- › Low Waste Volume
- › Reliable Operation
- › Handles Feed Water Variability
- › Scaling & Fouling Control
 - Organic Fouling
 - Silica Scaling
 - Calcium & Metal Salts
- › High Salt Rejection
 - TDS Removal
 - Boron Removal
- › Continuous CIP Process
- › Low Energy Consumption



All unit processes and control systems are included in the trailer.



N.A. Water Systems provides experienced operators for pilot testing with 24/7 coverage.

OPUS™ technology is ideal for applications where high water recovery for reuse and sustainable water management are key goals. N.A. Water Systems offers pilot demonstrations of OPUS™ technology using a mobile system designed with the flexibility to fulfill the treatment requirements of various feed waters. Our mobile units are deployed to your site to demonstrate our process for your specific water characteristics before the full-scale system is designed, enabling us to provide a performance guarantee.



Our trailer-mounted testing unit and associated skids are delivered to your doorstep for on-site testing to demonstrate system performance and confirm operational costs.

OPUS™ Pilot Specifications

System Capacity: 20 GPM

Treatment Units on Trailer:

- › Degasifier
- › Multiflo™ Chemical Softener
- › Deep-Bed Multimedia Filter
- › WAC IX Sodium Softener
- › Cartridge Filter
- › Single Pass RO

Semi-Automatic Operation

Maximum Inlet Conditions:

- › TDS < 30,000 ppm
- › Free Oil < 1 ppm
- › Temperature < 113°F

Electrical Requirements:

- › 480 V, 225 amp, 3-phase
- › Power Demand: 200 kw

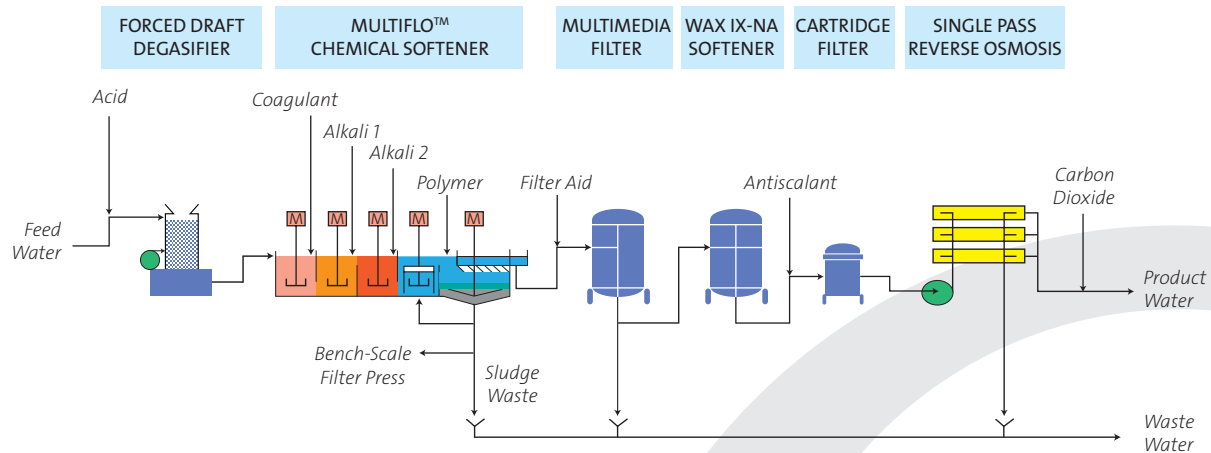
Connection Sizes:

- › Influent/Effluent – 2 inches
- › Main Trailer Drain – 3 inches
- › Potable Water – ½ inch

Footprint:

- › Trailer (53' L x 8.5' W)
- › Chemical Skid (8.8' L x 8' W)
- › Flush Skid (17'4" L x 8'4" W)

OPUS™ Mobile Pilot Unit Features



- 1 - The Degasifier reduces solids generated in the chemical softening process and minimizes the alkali demand for raising the pH.
- 2 - The Multiflo™ chemically softens the water using Turbomix™ technology to assist in the formation of crystalline solids.
- 3 - A deep-bed multimedia filter is used to remove particulates.
- 4 - Off-site regenerated WAC sodium form IX softeners are used to remove residual hardness and metals.



- 5 - The RO system is designed to achieve high recovery rates and produce high quality effluent suitable for recycle, reuse or discharge to surface waters.
- 6 - All necessary chemical feed systems are provided on a separate skid with easy hook-ups.
- 7 - An RO flushing system is provided for periodic flushing of the membranes after shutdown.