

Location: US



AMI solution transforms PVC manufacturing operations

PVC manufacturing processes often consume vast quantities of water. AMI systems offer a more sustainable solution.

## Challenge

The world's largest producer of polyvinyl chloride (PVC) embarked on a project to enhance its infrastructure.

Recognizing the importance of sustainable practices in its operations, the company needed a robust and reliable water treatment solution for its expanding operations.

Source water is well water.

Applied Membranes was selected to provide advanced water technology solutions for the project.



## Solution

Applied Membranes designed, built, and commissioned a robust containerized BWRO system producing **500 GPM (115 m<sup>3</sup>/h)** high-quality permeate for manufacturing operations.

The AMI RO units are housed in two (2) durable 40-foot insulated containers, facilitating ease of transportation and installation. One unit is designated as the master station for direct PID control.

Multimedia filters (MMF) pretreatment valve rack and enclosure were supplied as a fully packaged unit outside the containers.

The overall solution was strategically designed, ensuring a reliable and sustainable source of water for the PVC production process.

### Key Features:

- Antiscalant
- Chemical injection system
- Pump station
- Media filtration
- Clean-in-place system
- Programmable Logic Controller (PLC)

## Results

**Thoughtful design:** The robust containerized AMI units were housed in 40-foot insulated containers for rapid deployment, mobility, and scalability. MMF media filters were fully assembled and installed as pretreatment, effectively removing suspended solids and contaminants before the RO system.

**High quality water:** AMI system consistently produces high-quality water for client's manufacturing processes.

**Operational efficiency:** The high recovery rate (75-80%) of the BWRO system improved client's operational efficiency by maximizing the production of high-quality water while minimizing energy consumption.

