

Pharmaceutical



Separation from the ordinary

PROJECT BRIEF

Pharmaceutical Company Upgrades their Ultrapure Water System for Higher-Quality Water and Increased Efficiency

PROJECT OVERVIEW

At a leading pharmaceutical company in Pennsylvania, the client upgraded their ultrapure water (UPW) system with SAMCO's state-of-the-art technology designed to decontaminate water within pharmaceutical industry water purity guidelines.

OBJECTIVE

Satisfy stringent pharmaceutical water purity standards and increase efficiency with improvements to existing water treatment system.

SCOPE OF SERVICE

SAMCO worked with the client to quickly deliver an effective solution that comprised detailed design, controls integration, system fabrication, single-source field installation, PLC controls, commission, startup, and ongoing maintenance and system support.

CHALLENGES

- High colloidal solid and silt density index (SDI) levels fouling membranes
- Poor design on existing UPW system
- Single-source field installation/piping
- Limited space constraints
- Minimal operator availability

SOLUTION

To purify the client's water per the pharmaceutical industry's high-quality water standards, the client upgraded their UPW system to utilize SAMCO's ultrafiltration (UF) system, removing colloidal solids and improving the feed's SDI prior to ultrapure membrane filtration, preventing membrane fouling. SAMCO proposed an ozone generator with stainless steel orbital welding in the polishing loop to control bacteria counts and fabricated a prepackaged system for a smaller footprint and fast-track, turnkey project delivery, which included twelve hollow fiber membranes with partial operational capabilities, an auto fast-forward flush feature that enables easy cleaning of membranes, and modular add-on capability for future needs. To compensate for limited operator availability, SAMCO provided programmable logic controllers (PLC) that automate the monitoring of flow, temperature, pressure, and resistivity.

TECHNOLOGY

Project deliverables and equipment included:

- State-of-the-art UPW membrane system
- UF membranes with housings
- Ozone generator
- Recirculation pump
- PLC controls and control valves

OVERVIEW

Industry

Pharmaceutical

Location

Pennsylvania, US

Objective

Purify city water to meet high-quality pharmaceutical industry standards

Solution

47 GPM UPW System with UF Membranes, Ozone Generator, and PLC Controls

Need help bringing your water to industry compliance standards? Is water purity an issue? Contact us today at SamcoTech.com • askengineers@samcotech.com • (716) 743 9000