Customer Success Story

Location: Ecuador

AMI USP sanitary grade system provides ultrapure water for medication manufacturing

Pharmaceutical companies need to meet stringent water quality standards to comply with regulations.

Challenge

In pharmaceutical applications, water quality that meets highest purity standards is essential for the quality, efficacy, and safety of the final products.

A pharmaceutical company had built a state-of-the-art medication manufacturing plant to advance its manufacturing capabilities.

They needed a USP (United States Pharmacopeia) sanitary grade water treatment solution to provide ultrapure water (UPW) for developing and producing medications. Feedwater is city water with approximately 200 ppm TDS.

Applied Membranes was selected for the project.

Solution

Applied Membranes engineered, built, and commissioned a custom Reverse Osmosis-Electrodeionizatrion (RO-EDI) system producing **10 GPM (70 m3/d)** of ultrapure water (UPW) for pharmaceutical applications.

AMI USP system incorporates sanitary components including adapter fittings, valves, and flow meters. The system also includes PLC with touch screen, integrated cleaning, and pretreatment including twin softener for continuous operation.

Prior to shipment, AMI system was completely assembled, wired, piped, and tested. The AMI system is fully skid-mounted for ease of operation and maintenance.

Key Features:

- Antiscalant
- Media filters
- Twin softener
- UV disinfection
- Clean-in-place skid
- Chemical injection system
- Programmable Logic Controller (PLC) with touch screen

Results

Applied Membranes commissioned a USP sanitary grade water treatment system producing ultrapure water for the client's medication manufacturing plant.

Custom design: AMI system is custom-designed to fit within the available footprint space and uses sanitary components for pharmaceutical application.

Quality: AMI system consistently produces high-quality ultrapure water with EDI product water quality measuring less than **0.05 mS/m at 90% water recovery rate**.

Start-up and training: Applied Membranes ensured the system was running properly and provided onsite training.

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