

Petrochemical



SAMCO

Separation from the ordinary

PROJECT BRIEF

Major Petrochemical Plant Expands Plant Production with AMBERPACK™ Deionization System

PROJECT OVERVIEW

In order to accommodate increasing production requirements at a prominent petrochemical plant in Mexico, the client consulted SAMCO to custom-engineer a deionization system that could perform efficiently at a greater volume. Meeting the client's needs, SAMCO provided a multifaceted solution to help the client effectively expand production while maintaining the water quality necessary for suitable boiler makeup water.

OBJECTIVE

Meet stringent boiler feedwater quality requirements for the petrochemical industry.

- 1 micromho/cm
- 10 ppb silica

SCOPE OF SERVICE

SAMCO delivered a detailed process, mechanical and electrical design and engineering, controls integration, system fabrication, commissioning, startup, and training.

CHALLENGES

- Extremely low silica required for stringent boiler makeup water requirements for use in the petrochemical industry
- Maintain superior deionization with high flow volume

SOLUTION

When the client need to expand production to meet high demand, SAMCO designed, engineered, and implemented a state-of-the-art AMBERPACK™ Deionization System capable of processing 2,200 gallons of water per minute. The system featured a two-train ion exchange unit with cation and anion exchange pressure vessels in addition to a polishing ion exchange cycle for maximum results. SAMCO also installed programmable logic controllers (PLC) to automate flow, temperature, pressure, and resistivity monitoring with a PC-based operator interface for ease of use.

TECHNOLOGY

Project deliverables and equipment included:

- AMBERPACK™ Deionization System
- Tube filter system
- WAC/SAC cation exchange pressure vessels
- WBA/SBA anion exchange pressure vessels
- SAC/SBA polishing ion exchange pressure vessels
- Instruments/valves
- Chemical storage & metering equipment
- Resin backwash towers
- Auxiliary pumps
- Required tanks and filters
- PLC controls
- PC-based operator interface

OVERVIEW

Industry

Petrochemical

Location

Mexico

Objective

Increase water deionization capacity to allow for expanding plant production

Solution

2200 GPM AMBERPACK™ Deionization System

Looking to increase the volume of your boiler makeup water? Is contamination an issue? Contact us today at www.SamcoTech.com • askengineers@samcotech.com • (716) 743 9000