

# Mining & Metals



# SAMCO

Separation from the ordinary

## PROJECT BRIEF

Major Aluminum Manufacturer Treats Chemical Bath With SAMCO Ion Exchange, Avoids Need to Discharge Waste

### PROJECT OVERVIEW

An aluminum manufacturer in the Northeast utilized SAMCO's ion exchange technology to minimize waste and treat it for reuse in its production process.

### OBJECTIVE

Remove all traces of metals from a chemical bath for use in aluminum production

### SCOPE OF SERVICE

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

### CHALLENGES

- Low traces of metals in production waste
- Contaminant removal in a closed loop process

### SOLUTION

To help the client recycle their chemical bath for reuse in their manufacturing process, SAMCO worked with the client to implement a custom-engineered solution. Utilizing the resin technology of SAMCO's prepackaged ion exchange alongside various forms of filtration, the client was able to minimize waste and recycle it for reuse. To compensate for limited operator availability, SAMCO installed programmable logic controllers (PLC) to automate flow, temperature, pressure, and resistivity monitoring.

### TECHNOLOGY

Project deliverables and equipment included:

- Ion Exchange Unit
- Auxiliary pumps
- Tanks and filters
- Chemical feed system
- PLC Controlled

## OVERVIEW

### Industry

Mining & Metals

### Location

Northeastern US

### Objective

Remove aluminum from a chemical bath for reuse

### Solution

Multi-Vessel Ion Exchange System

Looking to recycle your process stream? Is contamination and/or discharge an issue?  
Contact us today at [www.SamcoTech.com](http://www.SamcoTech.com) • [askengineers@samcotech.com](mailto:askengineers@samcotech.com) • (716) 743 9000