



PROJECT BRIEF

Metal Parts Manufacturer Gains Production Flexibility and Reliable Discharge Compliance with SAMCO Wastewater Treatment Technology

PROJECT OVERVIEW

When a metal parts manufacturing facility in San Antonio, Texas needed to treat its discharge streams per stringent compliance standards, the company looked to SAMCO for a scalable wastewater treatment system (WWTS) that would reliably serve its variable production volumes.

OBJECTIVE

Treat multiple wastewater streams from industrial plating processes to meet stringent publicly owned treatment works (POTW) discharge limits for heavy metals.

SCOPE OF SERVICE

SAMCO delivered a turnkey WWTS, providing services including: process, mechanical, and electrical design and engineering, system fabrication, installation, controls integration, and full startup support.

CHALLENGES

- Stringent heavy metals discharge limits per public water treatment facility
- Multiple wastewater streams from varied production processes

SOLUTION

SAMCO engineered a comprehensive 10 GPM WWTS for removal of physical and chemical contaminants from discharge streams generated by metal plating operations. In addition to the core WWTS, the solution included a 1000 GPD batch reactor, allowing the system to accommodate volume fluctuations to meet the client's dynamic production needs. The prepackaged WWTS was designed for rapid delivery and startup, and outfitted with programmable logic controls (PLC) and remote telemetry to minimize on-site operation and maintenance demands while providing process monitoring capabilities.

TECHNOLOGY

10 GPM WWTS and 1000 GPD batch reactor, with components including:

- Equalization and reaction tanks
- Chemical addition and mixing tanks
- Inclined plate clarifier
- Influent and discharge pumps
- Sludge dewatering/filter press
- PLC controls

OVERVIEW

Industry
Chemical

Location
San Antonio, TX

Objective
Treat metal plating wastewater per stringent discharge requirements for heavy metals

Solution
10 GPM Physical/
Chemical Wastewater
Treatment System