

CASE STUDY

Field Fabricated Polypropylene
Tanks by Burt Process Equipment
for a Pharmaceutical Manufacturer



Overview

A global pharmaceutical manufacturer specializing in plasma-derived therapies needs a custom storage solution for aggressive chemicals in their production facility. Burt Process Equipment is tasked with designing a robust, corrosion-resistant tank system that meets strict safety and purity standards while fitting the site's unique spatial constraints.



Project Requirements

The client requires a double-walled, 5,000-gallon tank system for safety and environmental protection. The tanks are made from natural homopolymer polypropylene for chemical resistance and ease of installation. Specifications include:

- Inner Tank: 5,000 gallons, 114" diameter, 114" tall
- Containment Tank: 110% capacity, 120" diameter, 114" tall
- Construction: Vertical cylindrical, flat top/bottom, field-welded
- Material: $\frac{3}{4}$ -inch sidewalls, 1-inch top and bottom
- Support: Epoxy-coated steel clamp-style and interstitial rib supports

Challenge

The challenge is to design a tank that meets strict safety standards, fits within existing infrastructure, and handles corrosive chemicals used in plasma fractionation. It needs to ensure long-term integrity and minimize installation downtime.



Solution Provided

Burt Process Equipment designs and field-fabricates a custom double-walled tank assembly with flanges, leak detection connections, and welded coupons for tensile testing. Key features include:

- Flanges: ANSI 150# pattern with stainless steel blind flanges, a 3-inch vent with U-trap, and a 3-inch flange with internal suction elbow.
- Leak Detection: 1-inch flange for outer sidewall leak detection.
- Testing: Water testing assistance and welded coupons for strength testing.
- Installation: Pre-engineered tanks for easy on-site assembly, minimizing operational disruption.

Outcome

The field-fabricated polypropylene tanks are successfully integrated into the client's facility, providing a durable storage solution that meets plasma fractionation standards. The custom tanks ensure uninterrupted production while minimizing environmental and safety risks. This project highlights Burt Process Equipment's expertise in delivering tailored fluid handling solutions for the pharmaceutical industry.

