# Large Scale Cell Culture Pre-Viral & Post-Viral "Super Skids"

#### Confidential Client

#### **MANDATE**

Biopharm Engineered Systems LLC (BPES, a CPS Group Company) was retained to Design & Fabricate Pre-Viral & Post-Viral "Super Skids" for Confidential Client as part of a manufacturing expansion project. Confidential Client specializes in product development services to the pharmaceutical and biologic industries via contract manufacturing (CMO) & custom manufacturing of biopharmaceuticals, chemical synthesis capabilities, as well as detection systems and services for the bioscience sector.



BPES's main project scope included furnishing both skids and their components, exluding the vessels (furnished by Owner). Project challenges included designing each system appropriately considering physical constraints of the large foot print. As the line sizes were so large, any modifications required in the design provided more challenges and considerations to mitigate piping conflicts.

### Process Equipment (Including but not Limited to)

(5) 6,000L Vessels with ZG8 Mixer

(1) 1,000 L Vessel with ZG6 Mixer

(1) 4,000 L Vessel with ZG8 Mixer

(5) 3x30" Liquid Filter, .2 micron

Structural Mezzanine / Platform

**Software / Communications** 

By Owner



### Equipment / Services Provided (Including but not Limited to):

- Preliminary Flow Diagrams
- Schematic Piping Diagrams
- General Arrangements
- Catalog information, Cuts, Etc.
- Shop Detail Drawings
- Driver Description
- Instrument Location Drawings/
- Conduit Routing Plans
- Instrument Loop Drawings
- Wiring Schematics
- Skid Interconnection Details
- Inspection Schedule
- Weight List of Fabricated Parts
- Equipment Calculations
- Performance Curves
- Structural Design Calculations
- Factory Approval Tests
- Welding File Documents/Weld Maps
- Instrument Calibration Sheet
- Boroscope Inspection Report
- Surface Finish Documentation
- Maintenance Manuals

#### SECTOR OF ACTIVITY

Pharmaceutical and

Biopharmaceutical

Biotechnology

#### **CLIENT**

Confidential Client

#### YEAR OF COMPLETION

2016

#### SKID DIMENSIONS

(2) 48'L x 14' W x 15' H

#### **BPES PROJECT VALUE**

Confidential Value

## BioPharm Engineered Systems

A Critical Process Systems Group Company