

PRODUCTS AT WORK

VERTICAL WET SCRUBBER SYSTEM

PT-510 Series Scrubber Reduces Fermentation Tank Odors at Pharmaceutical Manufacturing Plant

Background

A Fortune 500 pharmaceutical company faced new air regulations to treat a complex mixture of odors and particulate emitted from a fermentation process used in the manufacture of antibiotics. The primary odor constituents were hydrogen sulfide (H₂S), dimethylsulfide (DMS), dimethyldisulfide (DMDS), and methylmercaptans (CH₃SH).

Results

To solve this emission problem, Duall recommended a Series PT-510 skid mounted, custom designed two-stage scrubber system. After extensive pilot testing, wet scrubbing was selected as the preferred control technology for several important reasons:

- Proven high efficiency odor removal over a wide range of compounds.
- Versatile design that allows for handling of mixed air streams with variable inlet loadings and particulates.
- Economical capital and operating costs.

The full scale system utilized proprietary chemical addition to consistently reduce average inlet concentrations from more than 170,000 to less than 300 odor units; a 99.8% reduction. The scrubber system, including interconnecting duct, exhaust fan, and stack, featured Duallast™ construction (fiberglass with inner PVC liner) to provide maximum corrosion resistance and structural integrity.

System accessories included fiberglass recycle pumps, galvanized steel access platform, chemical storage tanks, and control panel with starters and alarms.

Present Status

The system was installed in November of 1994 and has operated as designed since start up in January 1995.



Application: Fermentation Tank Odors

End User: Pharmaceutical Manufacturer

Reference: 9806-94

**PT-510 Skid Mounted
2-Stage Scrubber System
Duallast™ FRP/PVC
Construction**



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