

PRODUCTS AT WORK

VERTICAL WET SCRUBBER SYSTEM

Beta NOx 2000™ Scrubber System Installed With No Production Downtime

Background

Plymouth Tube, a Hopkinsville, Kentucky manufacturer and finisher of steel extruded shapes, needed to replace an outdated 45,000 CFM scrubbing system. At the same time, they were redesigning their process tank area to maximize their production efforts.

Plymouth Tube partnered with E. Roberts Alley & Associates Engineering to determine their environmental equipment performance requirements. Together they developed a design specification and strategy to minimize downtime during the installation and renovation stages of the project.

It was determined that a vertical wet scrubber was required to scrub Hydrofluoric Acid and Nitric Acid. The scrubber would also incorporate the flexibility to be upgraded for removal of NOx fumes should future regulations require. Proposals from select suppliers were submitted to the engineer for review and evaluation. The owner and engineer then visited the site of a comparable Duall system in nearby Tennessee, where the

fabrication quality and impressive performance results influenced their decision to award the contract to Duall.

Results

Duall took measurements of the site and implemented a two-step installation.

Step 1: The existing plenums were extended to allow for the tank farm modifications; a new double-sided 55 foot long 30,000 CFM hood, and a single sided 55 foot long hood face were installed. This took less than one week allowing Plymouth Tube to meet all planned production schedules.

Step 2: The new U.V. Resistant Scrubbing System was then installed and started. After successful start-up, Plymouth Tube's regularly scheduled production downtime was used to tie in the new system.

Present Status

Ventilation and scrubbing efficiency have been dramatically improved, with no lost production time during installation due to thorough planning and execution by all parties.



Application: Titanium etching utilizing Hydrofluoric Acid, Nitric Acid

End User: Plymouth Tube - Kentucky

Engineer: E. Roberts Alley & Associates

Reference: 2247-99

PT-510 12' Diameter Scrubber U.V. Stabilized PVC Construction

- Corrosion resistant
- Weatherproof, outdoor installation
- -12" W.G. structural design
- Duall NH-89 PVC fan
- Air flow capacity to 60,000 CFM



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