



Case Study # 107

Particulate Removal from Process Furnace Exhaust

This Ohio manufacturing company refurbishes Teflon coated baking trays by removing the teflon coating in a high temperature furnace. The process not only generates high levels of Hydrofluoric Acid but also particulates in the 5 micron size range.

A Fluidized Bed Scrubber was utilized based on its exceptional ability to simultaneously absorb gaseous contaminants and remove fine dust and soot particulates without fouling. The Fluidized Bed Scrubber follows a high temperature adiabatic quenching system that cools the process gases from 1500°F to near its saturation temperature. The scrubbers solids handling capabilities make it ideal for recycling slurries, minimizing wastewater and product recovery processes.



Application	Oxidation Furnace
Exhaust Volume	1600 ACFM
Exhaust Temperature	1500° F
Exhaust Pressure	8" W.C.
Contaminant	HF & Particulate
Removal Efficiency	>99%
Scrubbing Solution	Recycled NaOH
Materials of Construction	Hastelloy-C, FRP, & Polypropylene