

ENVIRONMENTAL SOLUTIONS FOR THE BUILDING MATERIALS INDUSTRY



ENGINEER | DESIGN | BUILD | INSTALL

Custom Systems for Air Pollution Control and Water & Wastewater Treatment

Monroe Environmental® has decades of experience working with manufacturers of industrial, commercial, and residential building products. We offer cost-effective solutions to meet demanding regulatory requirements, reduce maintenance costs, improve worker safety, streamline production, and minimize downtime.

Monroe's Engineered Systems

Air Pollution Control

- Packed Tower Scrubbers
- Venturi Scrubbers
- Quench Towers
- Dust Collectors
- Oil Mist Collectors
- Wet ESPs
- Fiber Bed Filters

Water & Wastewater Treatment

- Circular Clarifiers & Thickeners
- Lamella Plate Vertical Clarifiers
- Horizontal Plate Clarifiers
- API Oil/Water Separators
- Oil Skimmers/Oil Recovery Units
- X-Flo Mobile Clarifier™ and Rental Clarifiers
- Air Strippers

Application & Process Expertise

Air Pollution Control

- NH₃, H₂S, SO₂, HCl, HF, and acid gas
- Particulate matter – PM₁₀ and PM_{2.5}
- Condensables, aerosols, and opacity
- VOCs and odor
- Mist and dust collection

Water & Wastewater Treatment

- Suspended (TSS) and dissolved (TDS) solids
- Metals precipitation and reduction
- Oil separation and recovery
- Ammonia and VOC stripping
- Mobile water treatment and rentals

Recent Monroe Projects



Vertical Plate Clarifier with three pretreatment mixing tanks to clarify process water at specialty insulation manufacturing plant. The system included an integral sludge thickener and was rated for 750 GPM.



40,000 ACFM Dual Throat Venturi Scrubber for collection of PM from insulation drying ovens. Unit was constructed of 304SS and included venturi scrubber with recirculation pump, integral liquid reservoir, chevron demister, drag conveyor for solids removal, fan, piping, valves, instruments, and controls.



Multi-Stage Scrubbing System to remove H₂S and VOCs from rubber vulcanizing process exhaust. System included Packed Tower Scrubber, Carbon Adsorber, ID fan, stack and ductwork, all 304SS construction and was rated for 3,000 ACFM.



28,000 ACFM Venturi Scrubber, 304SS construction, for PM removal from FRP panel manufacturing process. The system included venturi throat, integral sump and separator, chevron mist eliminator, recirculation pumps, solids drag conveyor, and controls.



Wet Scrubber treats nitric acid from dryer at ceramics plant. The 26,400 ACFM system can simultaneously cool the incoming gas temperature, control the acid fumes, and withstand the corrosive environment as it captures and neutralizes hot, nitric acid emissions from a production dryer.

Dual Throat Venturi Scrubber rebuild for wood mill. After years of hard use, the scrubber needed some repairs. The venturi throat was replaced and upgraded, and all doors, gaskets, and required fasteners were replaced. New internal steel members were installed including chevron hold-downs, and repairs on the scrubber exterior were made before giving the entire unit a fresh coat of paint. The scrubber looks and operates like new after the rebuild.





2,500 ACFM Multi-Stage Scrubbing System for PM and acid fume (HCl/HF) capture from building material testing oven prior to RTO. The system consists of a C-276 Quench Tower, FRP Dust Collector, Packed Tower Scrubber, pumps, instruments, and controls.



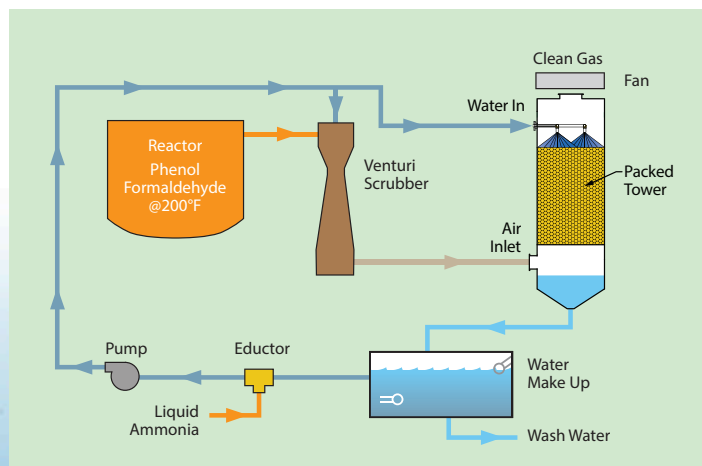
800 GPM Thickener Clarifier to separate dense, sticky solids contained in the liquid stream at a gypsum manufacturing plant. Solids are now properly agitated and pumped out in a timely manner, preventing material setting that had previously damaged equipment and stopped production.



Dual Throat Venturi Scrubber to exhaust dryer for insulation and panel board manufacturing. The 18,000 ACFM unit with drag conveyor captures fumes and PM.



High efficiency Cartridge Dust Collectors for brick and terra cotta manufacturing facility to exhaust mills and protect employees from exposure to crystalline silica dust. The plant had several material transfer and processing stations, each requiring a custom hood, ductwork, collector, and control system.



Multi-Stage Scrubbing System with Venturi Scrubber, Packed Tower Scrubber, and water clarifier for high efficiency scrubbing of the phenol, formaldehyde, and particulate from a batch reactor process at a fiberglass insulation manufacturing plant.

Multi-Stage Oil Mist Collector to remove heavy oil droplets, smoke, and submicron vapors for a synthetic fiber plant's manufacturing operations. The four-stage system operates at >95% efficiency treating 0.3 micron sized particles.



ABOUT MONROE ENVIRONMENTAL

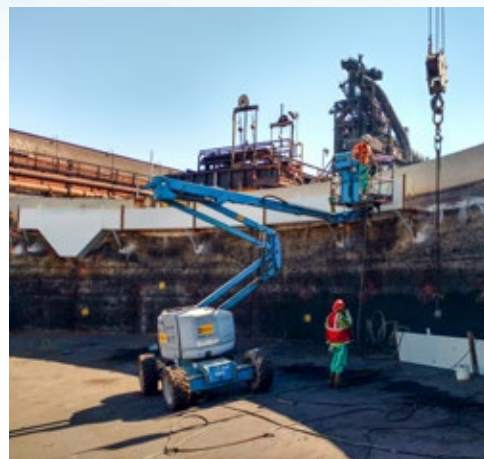
Unsurpassed Experience and Reputation

Monroe Environmental is a premier provider of air pollution control and water/wastewater treatment systems and services. For over 50 years, Monroe has provided thousands of systems for industrial, municipal, institutional, commercial, and government facilities. We have installations throughout North America, from northern Canada to southern Mexico, and around the globe. As a testament to our outstanding reputation, some of the largest and most prestigious manufacturing companies in the world routinely turn to Monroe to solve their most challenging environmental problems.

One-Stop Shopping – Systems, Services, and Solutions

Monroe is a full-service company offering a complete line of pollution control equipment that is designed, engineered, and manufactured for the needs of each customer and application on an individual basis. We have complete in-house fabrication and shop assembly capabilities that serve to reduce project costs, provide superior quality control, and expedite project completion times. We also have the experience and capabilities to provide turnkey installations along with a wide array of related services ranging from engineering and design through permitting, project management, and commissioning.

Monroe's staff of engineers, technicians, and project managers is highly experienced at evaluating, custom-designing, fabricating, installing, and commissioning cost-effective, durable, and reliable systems. In addition, in order to help ensure continued successful system operations with minimal downtimes and peak efficiencies, we offer a complete menu of support options that include extensive spare and replacement part inventories, as well as annual, as-needed, and emergency services.



Experience the Monroe Difference

The foundation of Monroe's success, reputation for excellence, and continued growth is our commitment to providing each customer the highest levels of service and support in combination with the best, highest quality, and most cost-effective systems for ensuring long-term successful operations. This, combined with our top-notch staff, in-house capabilities, and wide array of offerings distinguish Monroe Environmental as one of the finest environmental equipment providers.

Contact us today and let us help determine the best solution to your air and water pollution control needs. Join the ranks of countless satisfied customers who have experienced the Monroe difference.

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