

ENVIRONMENTAL SOLUTIONS FOR THE AUTOMOTIVE, AEROSPACE, & MACHINING/AUTOMATION INDUSTRIES







ENGINEER | DESIGN | BUILD | INSTALL

Custom Systems for Air Pollution Control and Water & Wastewater Treatment

Monroe Environmental® has decades of experience working with plants and engineers in the automotive, aerospace, and machining/automation industries. 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

- Machining wet and dry
- MQL Machining
- Parts washer exhaust
- Grinding, honing, polishing and buffing
- Gear hobbing
- Odor and fume control
- Flame laminating and stamping
- Casting and forging operations

Water & Wastewater Treatment

- Metals reduction and removal
- Solids (TSS) reduction and removal
- Oil separation and recovery
- Sludge thickening and de-watering
- Coagulation, flocculation, and chemical precipitation
- Stormwater runoff

Recent Monroe Projects



Clarifier Rebuild with X-Flo Mobile Clarifier™ Bypass: 100% Uptime A truck assembly plant needed a rebuild for their 40 ft. clarifier, and downtime was not an option. Monroe executed a complete, turnkey solution that included a new circular clarifier internal mechanism, demo/install of the circular clarifier, and rental of an X-Flo Mobile Clarifier™ to bypass the existing clarifier while it was being rebuilt. The complete project took just a few weeks with **no downtime!**



Two Vertical Plate Clarifiers rated for 271 GPM each with chemical pre-treatment tanks and integral sludge thickeners to remove solids from wastewater at an automotive assembly plant.



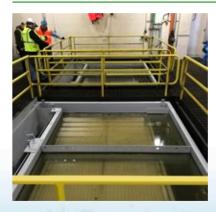
Horizontal Plate Clarifier for wastewater treatment system to remove solids, metals, and oils from e-coating operation wastewater. Monroe supplied turnkey installation of the system, which was rated for 50 GPM.



One of two Lamella Plate Vertical Clarifiers with integral sludge thickeners for an automotive assembly plant's wastewater treatment system. The clarifiers were 304SS construction and rated for 500 GPM each.



Two Lamella Plate Vertical Clarifiers rated for 500 GPM to precipitate metals and remove solids from wastewater at an automotive assembly plant. Scope included chemical pre-treatment tanks, integral sludge thickeners, PLC controls, and access platforms.



Two CPI Separators for stormwater oil/water separation were custom designed to fit perfectly onto the existing footpads and match up to existing influent, effluent, and sludge piping, saving the customer significant time and money.



Clarifier rebuild of a competitor's inclined plate type clarifier to improve performance, eliminate bypass, and achieve compliance for heavy metals (zinc) discharge. Scope included new internal baffles, separator plates, gaskets, and launders. Monroe provided equipment, demo, and installation turnkey.



Lamella Plate Vertical Clarifier with chemical pre-treatment tanks and integral sludge thickener to remove metals and solids from assembly plant wastewater. Unit was constructed from 304SS and rated for 320 GPM.



2,500 ACFM Packed Bed Scrubber with fan and controls to remove H₂S fumes from acid cracking tanks at an axle manufacturing plant. Scrubber is constructed from FRP and has been operating for nearly 30 years.



Spiral Tube Mist Collector exhausting multiple machining booths at an automotive engine manufacturing plant. Central systems exhausting multiple booths have lower life-cycle costs versus individual collectors.



12,000 CFM Cartridge MQL Collector with integral fan and cartridge pulse controls at an automotive plant.



4,500 CFM Carbon Adsorber for an automotive battery manufacturer's VOC abatement system to exhaust ozone and other organic compounds harmful to workers from a manufacturing clean room.



Cartridge Dust Collectors for dust filtration from grinding operation at an automotive manufacturing facility. Each unit is rated for 1,200 ACFM and features automatic reverse pulse cartridge cleaning and final HEPA filter to meet stringent emission limit.



25,000 CFM Venturi Scrubber for aluminum parts manufacturer to upgrade their air pollution system. The scrubber effectively captures and removes lubricant mist, particulate, and fumes from their die casting process.



Assembly of 37 Spiral Tube Oil Mist Collectors for automotive engine and transmission machining operation. Monroe Mist Collectors outperform all other collectors and are currently operating at plants all around the world.



Multi-Stage Mist Collector with high efficiency filters and integral controls. Monroe's design incorporates more filter media than competitor units for longer operating cycles between filter changes.



Modifications to existing coating line operations saved auto parts supplier \$600,000 and solved acid mist and ventilation problems.

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.





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.

www.mon-env.com • Registered ISO 9001:2015 and ISO 14001:2015



810 West Front Street Monroe, Michigan 48161 USA Phone: 734-242-7654 • Toll Free: **800-992-7707**

Fax: 734-242-5275 • Email: sales@mon-env.com





