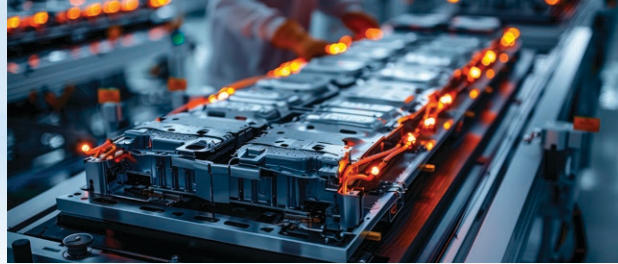


ENVIRONMENTAL SOLUTIONS FOR BATTERY MANUFACTURING, RECYCLING, AND TESTING



ENGINEER | DESIGN | BUILD | INSTALL

Custom Systems for Air Pollution Control and Water & Wastewater Treatment

Monroe Environmental® designs and manufactures systems purpose-built for battery manufacturing, recycling, and testing, giving operators the equipment they need to minimize environmental impact without compromising productivity. 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

- Battery Abuse Test Emissions
- Explosive Dust
- Mist & Dust Collection
- Particulate Matter (PM10, PM2.5)
- Acid Gas Removal (HF, HCl, SO2)
- Condensables & Smoke
- VOC Abatement

Water & Wastewater Treatment

- Clarification & Thickening
- Metals Removal
- TSS/TDS Reduction
- Ammonia Reduction
- Oil/Water Separation
- Rental/Temporary Clarifiers

Recent Monroe Projects



60,000 CFM **Wet Electrostatic Precipitator (WESP)** to exhaust testing and abuse operations at a battery lab. The system was designed to remove fine smoke/PM_{2.5} and other contaminants generated from the battery test operations. Monroe provided the complete pollution control system and on-site installation.



70,000 CFM **Multi-Stage Scrubbing System** for battery abuse exhaust treatment. The scope included wet scrubbers, PM_{2.5}/smoke filtration, ductwork, controls, fan, stack and associated controls.



Multi-Stage Scrubber System to treat air pollution generated from battery shredding and recycling operations. The system was designed to remove PM_{2.5}/smoke, acid gasses, and other pollutants generated during the recycling process.

Carbon Adsorber exhausts clean room at an automotive battery manufacturing plant. A plant expansion required additional VOC abatement to properly exhaust its battery assembly lines. The harmful compounds were safely extracted and filtered in the Monroe Carbon Adsorber.



Multi-Stage Venturi Scrubber System consisting of a wet scrubber, smoke/PM_{2.5} filtration, duct, fan, and controls for use at a battery abuse test facility. The Scrubber was designed to efficiently remove airborne particulate, smoke, and acid gas from battery testing operations.



Compact CFBB Multi-Stage Mist Collectors to exhaust machining centers at an electric vehicle manufacturing plant. The systems were required to meet demanding automotive supplier specifications and operational requirements, including stringent outlet emission concentrations and noise threshold of 78 dBA or less.



Supply of (2) **Inclined Plate Vertical Clarifiers** to treat wastewater with precipitated metals at an EV and energy storage battery manufacturing facility. Each unit included integral sludge collection hopper, chemical mixing tanks, mixers, and controls. The clarifiers were rated for 100 GPM each.



High efficiency **Mist Collectors** to exhaust machining centers at an electric vehicle manufacturing plant. The systems were constructed from 304SS for corrosion resistance and were designed to meet <0.5 mg/m³ outlet mist concentration.

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



MONROE
ENVIRONMENTAL
Water & Wastewater Treatment | Air Pollution Control

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