

Air Pollution Control

Monroe Environmental® provides air pollution control technologies for a variety of air/gas treatment processes at nearly every type of industrial manufacturing plant and municipal treatment works, including those in the following fields:

Automotive Manufacturing | Chemical Processing | Food Processing | Glass & Plastics
Mining & Metals | Oil & Gas | Pulp & Paper | Steel Processing | Utilities/Energy | Waste Management



Packed Bed Scrubbers

Fume Scrubbers remove acids, soluble gasses, chemicals, and odor

- FRP, PVC, CPVC, polypropylene, PVDF, stainless steel, and specialty alloys
- Removal of H₂S, HCl, HF, SO₂, NH₃, HCN, HNO₃, formaldehyde, and many other soluble pollutants
- Vertical tower and cross-flow designs



Venturi Scrubbers

Wet-type Dust Collectors for PM (Particulate Matter) reduction

- Boiler, kiln, incinerator, and dryer gas
- Glass fiber and synthetic resins
- Explosive dusts/metals
- Machining or grinding dusts
- Wet, tacky, sticky solids
- Low profile Dual Throat Venturi Scrubber available



Multi-Stage Wet Scrubbers

Complete scrubbing solutions for multi-pollutant emissions reduction

- High temperature and volatile chemical processes
- RTO, boiler, dryer, kiln, and incinerator exhaust scrubbing
- PM (Particulate Matter) removal and acid gas neutralization



Quench Towers

Temperature control and conditioning of process gasses

- Evaporative cooling, condensing, and heat transfer
- Thermal treatment exhaust from incinerators, reactors, kilns, boilers, furnaces, and oxidizers
- Stainless steel, nickel alloys, and refractory linings



Carbon Adsorbers

Physical and chemical adsorption of VOCs and other gas-phase pollutants

- Industrial emissions from paint spraying, material coating, and printing
- Odor control for food processing, industrial manufacturing, and wastewater treatment operations
- EV/Battery manufacturing



Dust Collectors

High performance fabric filtration with reverse pulse cleaning

- Bulk solids handling
- Dry machining and grinding
- MQL machining
- CNC operations
- Explosive dust collection
- EV/Battery manufacturing



Mist Collectors

Mist, smoke, and vapor removal of oils, lubricants, coolants, and more

- Metal cutting, forming, & machining
- Parts washer exhaust
- Steel and aluminum processing
- Rolling mill fume exhaust
- Synthetic fiber processing
- Optional Fiber Bed Candle Filters



Wet Electrostatic Precipitators (WESPs)

Effective control of fine particulate matter emissions

- PM_{2.5}, smoke, and submicron particulate
- Condensables and aerosols
- Opacity reduction and elimination
- Boiler and dryer emissions



Water & Wastewater Treatment

Monroe Environmental® provides liquid clarification technologies for a variety of water treatment processes at nearly every type of industrial manufacturing plant and municipal treatment works, including those in the following fields:

Automotive Manufacturing | Chemical Processing | Food Processing | Glass & Plastics Mining & Metals | Oil & Gas | Pulp & Paper | Steel Processing | Utilities/Energy | Waste Management



Circular Clarifiers and Thickeners

New, rebuild, and retrofit designs

- Scraper and spiral scrapers
- Suction header and riser pipes
- Solids contact/high rate clarifiers
- Flocculating clarifiers
- Sludge thickeners
- Variety of tank design options



Vertical Plate Clarifiers

Inclined Plate Lamella Clarifier for increased flow and reduced footprint

- Suspended solids and dissolved metals removal
- Industrial wastewater clarification
- Filter backwash clarification
- River water treatment
- Plate settler modules available



Horizontal Plate Clarifiers

Solids separation AND oil recovery in one tank

- TSS/TDS/metals removal
- Oil/water/FOG separation
- Can replace CPI Separators
- Cross-flow separator plates, nonclogging design
- Optional Drag Conveyor



X-Flo Mobile Clarifiers™

A complete mobile treatment solution that removes solids and free oils/floating scum

- High efficiency, non-clogging X-Flo plate separator cartridges
- Perfect for temporary job sites and/or bypass operations
- Produced water treatment
- Pyramid hopper for continuous sludge removal



API Oil/Water Separators

Oil/water separation and recovery at industrial treatment plants

- Oil refineries
- Power plants
- Steel manufacturing
- Chemical manufacturing
- New, rebuild, and retrofit designs
- Variety of sludge collector designs



Drag Tank Separator

Heavy-duty chain and flight solids conveyor and separator

- Slag and mill scale
- Aggregate, sand, and grit
- Glass cullet
- Optional Oil Skimmers available
- Optional Cross-Flow Plates to enhance separation



Sludge Collectors

Efficient collection of separated solids/ sludge with many designs available

- Chain and flight collectors
- Drag conveyors
- Hoseless sludge collectors
- Screw augers and mechanical agitators
- Mud valves
- Sludge rakes/pipes



Air Strippers

Removes VOCs, ammonia, odorous compounds, and other pollutants from contaminated water streams

- Groundwater remediation at water treatment plants to remove VOCs
- Remediation of surface or groundwater for use in industrial manufacturing processes
- Ammonia stripping