

# Water & Wastewater Treatment

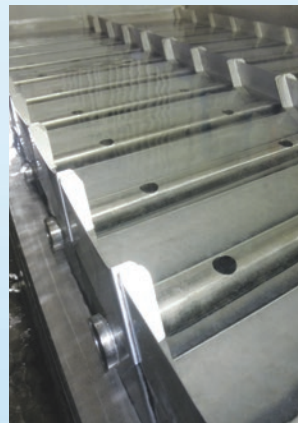
Monroe Environmental® provides liquid clarification technologies for a variety of water treatment processes at nearly every type of industrial manufacturing plant and municipal treatment works, including those in the following fields:

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



## Circular Clarifiers

- Primary and secondary clarification
- Solids Contact and flocculating designs for lime softening and chemical treatment
- Sludge thickeners
- **Clarifier Rebuilds** for existing units
- Steel tanks available or internals for concrete tanks
- Variety of sludge collection designs
- Heavy duty and high torque designs available



## Plate Settlers and Sludge Collection

- Increase solids settling capacity of new and existing sedimentation basins for municipal and industrial water treatment applications
- Low cost alternative to building new settling tanks
- New, retrofit, and rebuild services
- Can include a **Monroe Sludge Collection System**



## Vertical Plate Clarifiers

- Suspended solids and dissolved metals removal
- Industrial process/wash liquids clarification
- Filter backwash clarification
- Integral flocculation and pH adjustment capabilities
- Variety of sludge thickening and removal configurations
- Integrated systems with chemical treatment and sludge processing



## Horizontal Plate Clarifiers

- Same settling characteristics as Vertical Plate Clarifier
- Able to collect floatable materials as well as settleable solids
- FOG (Fats, oils, grease) removal and recovery
- Reduced headroom requirements
- Able to replace circular clarifier in many applications



## API Oil/Water Separators

- Oil/water separation and recovery at industrial wastewater treatment plants
- Oil refineries
  - Tar sands
  - Power plants
  - Steel manufacturing
  - Chemical manufacturing
  - Applications removing oil from water



## Air Strippers

- Groundwater remediation at water treatment plants to remove VOCs
- Remediation of surface or ground water for use in industrial manufacturing processes
- Removal of odorous compounds and VOCs from water streams

# Air Pollution & Odor 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**  
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## Packed Bed Scrubbers

- Removal of soluble pollutants, odors, and acid gases from municipal and industrial air streams
- FRP, PVC, CPVC, polypropylene, stainless steel, and specialty alloys
- Quench towers
- Removal of H<sub>2</sub>S, HCl, HF, SO<sub>2</sub>, NH<sub>3</sub>, HCN, HNO<sub>3</sub>, formaldehyde, and many other soluble pollutants
- Chemical feed systems
- Scrubber blowdown wastewater treatment systems



## Venturi Scrubbers

Particulate removal from industrial air streams and process gases, including flue exhaust

- Dryer exhaust scrubbing
- Buffing operations
- Cast iron machining fines
- Explosive dusts
- Fiberglass fines
- Forging and foundry dust, fumes
- Machining and grinding dusts
- And many others



## Multi-Stage Scrubbing Systems

- High temperature and volatile chemical processes
- Kiln, RTO, boiler, dryer, and incinerator exhaust scrubbing
- PM (particulate matter) removal and acid gas neutralization
- Metals, dioxin/furan, mercury, and opacity control
- Flame laminating and glass coating operations



## Carbon Adsorbers

Removal of VOCs, odorous compounds, oil vapors, and gas phase hydrocarbons

- Municipal water and wastewater treatment odors
- Industrial emissions from paint spraying, paper coating, plastic film coating, metal foil coating, rubber coating, and printing
- Odor control for food processing and other industrial process applications



## Dust Collectors

Removal of airborne dust from manufacturing and processing operations

- Bulk solids handling
- Chemical processing
- Dry machining and grinding
- CNC operations
- Powder coating
- Shot blast
- Welding and metal cutting operations
- MQL machining
- Fire protection available



## Mist Collectors

Mist, oil, smoke, and vapor removal from metal cutting fluids, metal processing coolants, processing oils, and other mist applications

- Metal cutting, forming and machining
- Parts washer exhaust
- Steel and aluminum processing
- Rolling mills
- Synthetic fiber processing