

MONROE Vertical Clarifiers

- Parallel plate design
- Efficient removal of solids from liquids
- Low space requirements
- Minimum maintenance
- No moving parts in settling area
- Unit capacities from 1 to 2,000 GPM

System Design

The Monroe Vertical Clarifier is designed to provide low cost, efficient solids removal from a wide range of waste and process liquids. The inclined plate design allows the total gravity settling area to be as much as ten times more than the actual floor space occupied by the clarifier.

Influent is fed into the clarifier downward through feed channels between the laminar plate sections. As the velocity of the influent decreases near the bottom of the channels, larger particulate settles to the clarifier bottom.

The influent enters the lower area of the laminar plate sections from the channels through side slots. The waste

liquid is then distributed across the entire width of the plates, and flows upward under laminar flow conditions. Particulate settles onto the plates and slides down to the clarifier bottom.

The liquid exits the plate sections through weirs at the top that are designed to develop adequate back pressure to maintain balanced flow through the plates. The liquid then flows into influent channels, and out of the clarifier.

Monroe can fabricate with a variety of materials, including stainless and mild steel, thermoplastics, FRP, and many others.

Custom Engineered

Monroe Vertical Clarifiers are carefully engineered to meet the specific requirements of each application. Well proven design criteria assure maximum performance of each clarifier. The design provides for easy field installation, fast startup, and low maintenance costs.

While many installations provide adequate solids removal without influent pretreatment, optional mixers and flocculator tanks are available to enhance efficiency when required. Some solids must be flocculated to achieve adequate mass to be effectively removed.

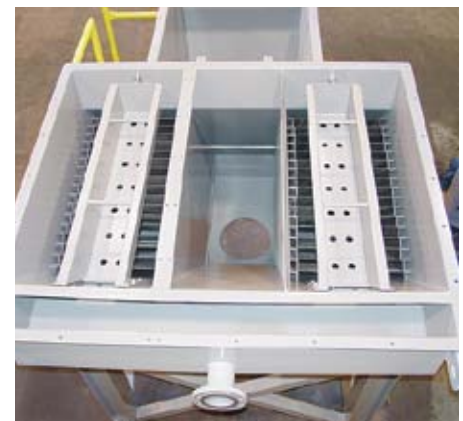
Monroe Vertical Clarifiers are manufactured in two different plate inclinations; the 45° clarifiers are designed for removal of heavy solids while the 55° clarifiers are designed for light solid removal applications.



60 GPM Vertical Clarifier for river water treatment

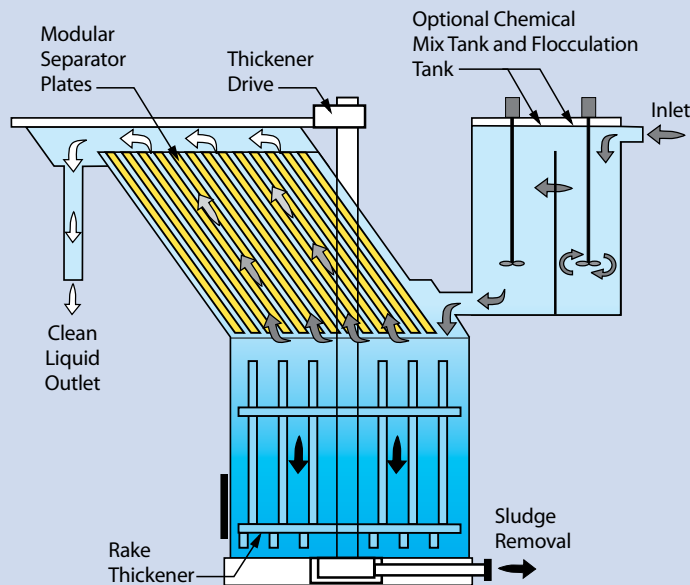
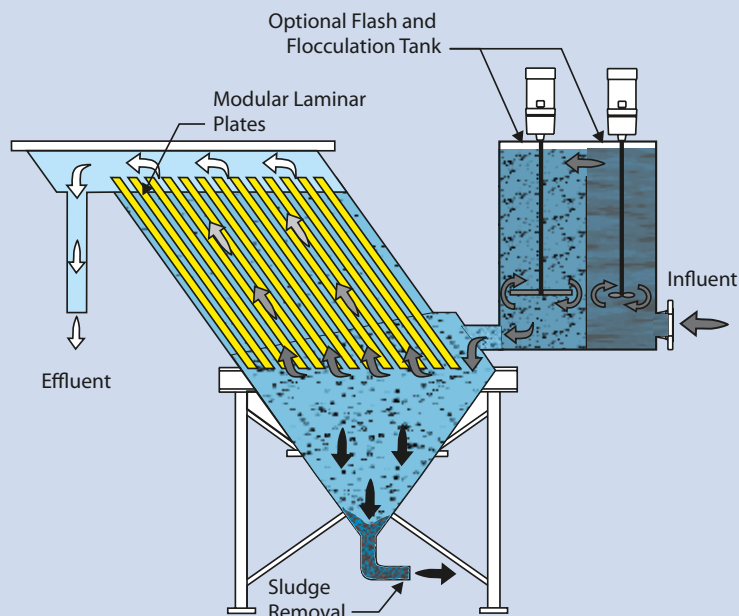


8 GPM polypropylene unit with chemical mix tank, flocculator, pyramid sludge hopper, and mild steel support structure



MONROE Vertical Clarifiers

Vertical Clarifier Configurations



425 GPM stainless steel unit with chemical mix tank, flocculator, and thickener

Special Features

Wide range of construction materials. Mild steel, special coatings, stainless steel, fiberglass, plastics, and other materials are available to meet specific needs.

The unique, modular design of the Monroe Vertical Clarifier allows easy removal of individual lamina plate modules from the clarifier for inspection.

A flash mixer and flocculator tank are available pretreatment options.

A rake thickener with geared drive is available for the bottom of the separator tank to increase solids concentration.

Complete electrical controls are available to meet customer requirements.

Monroe Environmental designs and builds liquid cleaning and recycling equipment including:

- Circular Clarifiers
- Parallel Plate Settlers
- Tube Settlers
- Horizontal and Vertical Clarifiers
- Air Strippers
- API Separators
- Oil Recovery Units
- Complete Engineered Systems



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