

# MONROE Horizontal Clarifiers

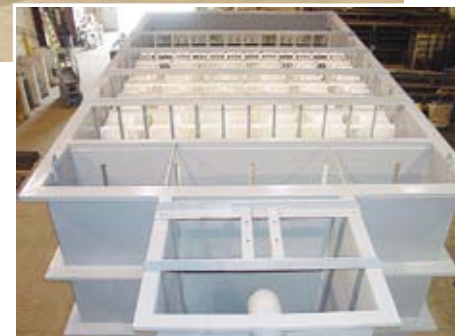
- Non-clogging plate design
- Simultaneously removes both floatable and settleable contaminants
- Requires less space than typical clarifiers
- Filter media not required
- Minimum maintenance
- Single unit capacities from 1 to 2,000 GPM

## Customized to Meet Your Needs

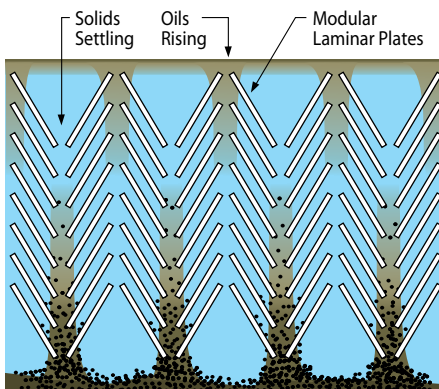
Monroe Horizontal Clarifiers are specially sized for each application. Monroe Environmental will evaluate your fluid effluent and determine design parameters for your particular installation. Your Horizontal Clarifier will then be constructed to provide the most economical and efficient liquid clarification to meet your needs.



*600 GPM Horizontal Clarifier with pyramid sludge hoppers*



*Top view of a Horizontal Clarifier showing installed parallel plate modules*



### Monroe Horizontal Clarifiers

In the Monroe Horizontal Clarifier separated particles are required to move only a few inches before reaching an uninterrupted and protected free fall or rise to collection areas. Efficiency is increased and build-up of collected particles is prevented.

## Broad Range of Capabilities

**Oil Recovery** – Separated oils, process fluids and other floatable materials are guided to an accumulation area for easy removal and reclamation. An adjustable overflow weir or a Monroe Oil Recovery Unit can be included to remove these elements.

**Chemical Treatment** – The Monroe Horizontal Clarifier can include a pre-treatment process as an integral part of the basic clarifier. This aids in the separation of dissolved solids, very fine particles and emulsified oils that tend to remain suspended in water or process fluids. A chemical treatment tank and/or flocculation chamber can be added to allow pH control and mixing of emulsion breakers and coagulants into the influent before the laminar flow process.

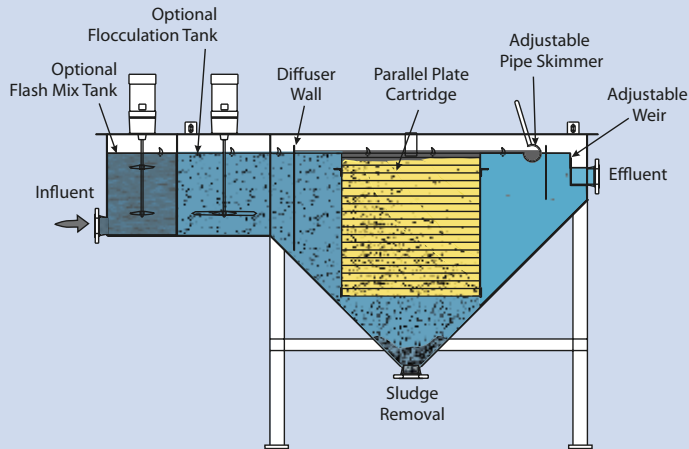
## Laminar Flow Principle

The unique design of the Monroe Horizontal Clarifier creates laminar flow conditions and allows gravitational forces to separate the lighter and heavier elements from the fluid.

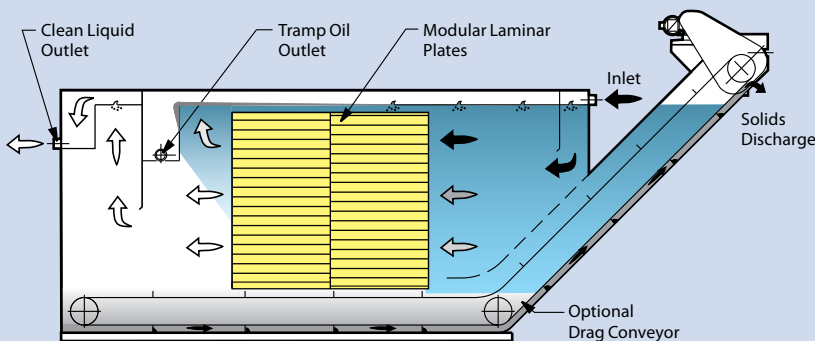
Normally, industrial laminar flow separation requires settling areas beyond practical space availability in typical manufacturing plants. Monroe's design engineers, however, have eliminated this problem through the unique capabilities of the Horizontal Clarifier.

# MONROE Horizontal Clarifiers

## Horizontal Clarifier Configurations



*Cone bottom construction is sometimes recommended for non-draggable solids.*



*Separated Solids Removal – Where the dirt load is heavy, a drag conveyor may be included to provide continuous removal of settled solids.*

## Many Configurations Available

Monroe Horizontal Clarifier complete package systems are available including mixers, chemical feed pumps, instrumentation and electrical controls.

## Special Features

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

**No moving parts in the clarifier section** reduces equipment cost and practically eliminates operating cost when compared with a centrifuge separator.

**Easily removable laminar plates.** The unique, modular design of the Monroe Horizontal Clarifier allows easy removal of individual laminar plate modules from the clarifier for inspection.

**Complete electrical controls** to meet customer requirements are available if required.



*200 GPM Horizontal Clarifier with drag conveyor option*

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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