

EQUIPMENT



LAMELLA CLARIFIER (Inclined Plate Settler)

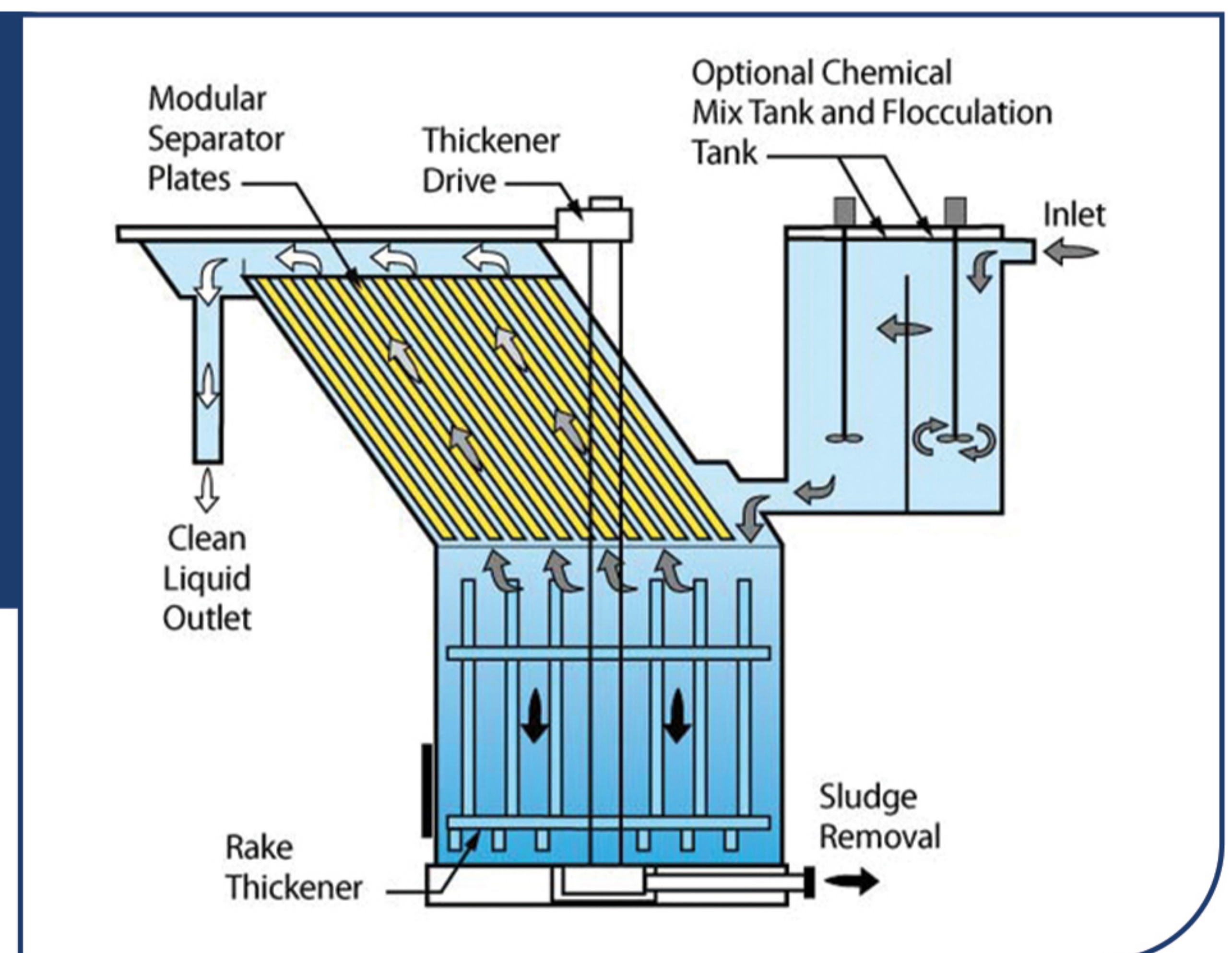
LAMELLA CLARIFIER (Inclined Plate Settler)

- **High-Efficiency Solid-Liquid Separation:** Removes suspended solids with efficiency exceeding 95%, delivering consistently high clarification performance.
- **Excellent Turbidity Reduction:** Reduces turbidity from high influent levels (up to 1600 mg/L) down to approximately 5 mg/L, ensuring clear effluent quality.
- **Effective COD Removal:** Achieves COD reduction of up to 80%, depending on wastewater characteristics and operating conditions.
- **Metal Ion Removal Capability:** Provides removal efficiency of over 93% for dissolved metal ions in industrial wastewater applications.
- **Compact & Space-Saving Design:** Inclined plate configuration significantly increases settling area, allowing high capacity within a small footprint.
- **Low Energy & Operating Cost:** Gravity-driven process requires minimal power, reducing operational and lifecycle costs.
- **Stable and Continuous Operation:** Simple design with no moving parts enables reliable, uninterrupted treatment with low maintenance requirements.
- **Efficient Alternative to Conventional Sedimentation:** Delivers faster settling and reduced footprint compared to traditional sedimentation tanks.



Working Principle

The Lamella Clarifier, also known as an Inclined Plate Settler (IPS), operates based on gravity sedimentation enhanced by inclined plate technology. Wastewater flows upward through a series of plates or tubes installed at approximately 60° inclination. As the flow passes through these plates, suspended solids settle rapidly onto the surfaces due to the reduced settling distance. The settled solids form a compact sludge layer, which slides down along the inclined plates into the collection hopper under gravity. Clarified water continues to rise and is collected at the top of the system for discharge or reuse.



Features

Standard Features

- Inclined plate (lamella) design for increased settling surface area
- Gravity-based sedimentation process with no internal moving parts
- Carbon steel construction with epoxy coating or optional FRP lining
- Sludge hopper for efficient solids collection and discharge
- Uniform flow distribution system for stable operation
- Effluent overflow weir for controlled discharge
- Compact modular structure for easy installation
- High treatment capacity with reduced footprint

Options & Accessories


- Coagulation and flocculation dosing system
- Sludge discharge pump and control system
- Stainless steel construction option
- Adjustable plate configuration for different applications
- Integrated control panel and monitoring system

Specifications and Parameters

Model	Capacity (m ³ /h)	Material	Dimensions (mm)
AQT-1	1	Carbon Steel (Epoxy Painted) / Carbon Steel + FRP Lining	Ø1000×2800
AQT-2	2		Ø1000×2800
AQT-3	3		Ø1500×3500
AQT-5	5		Ø1800×3500
AQT-10	10		Ø2150×3500
AQT-20	20		2000×2000×4500
AQT-30	30		3500×3000×4500 Sedimentation area: 3.0×2.5×4.5 m
AQT-40	40		5000×3000×4500 Sedimentation area: 4.0×2.5×4.5 m
AQT-50	50		6000×3200×4500 Sedimentation area: 4.0×2.5×4.5 m
AQT-120	120		9500×3000×4500 Sedimentation area: 8.0×3.0×3.5 m

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