

Lamella *World Leading Plate Clarifier*

Reliable, efficient sediment removal with up to 90% less footprint.

Applications

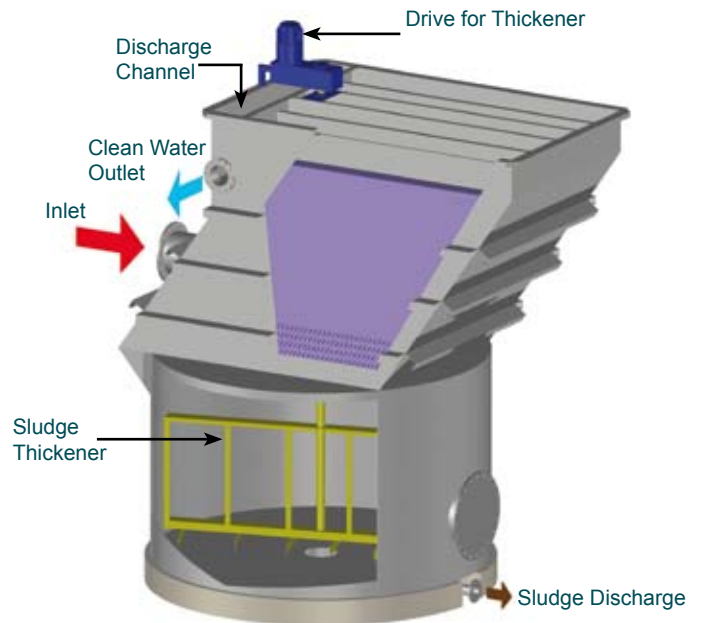
Effluent Treatment

- Primary clarification of wastewater streams.
- Pulp and paper industry.
- Industrial water treatment systems.
- Municipal water treatment systems.
- Biological purification processes.
- Wash water recirculation systems (eg. potato and root crop processing).
- Wet scrubber and slaking effluents in the power industry.

Other Common Applications

- Thickening processes in the chemical, mining and mineral industries.
- Treatment of effluents in metal finishing, and iron and steel plants.
- Can be used to clarify the wash water from a DynaSand® Filter.

The Lamella separator is a primary clarification device used to treat sewage and industrial waste streams.

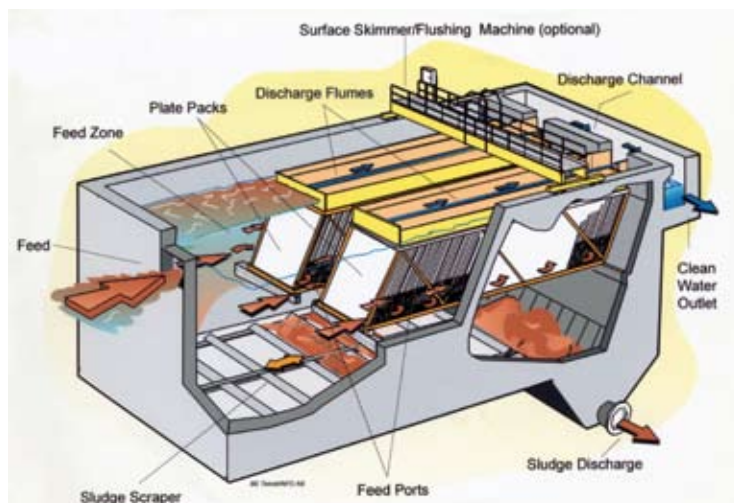


Advantages

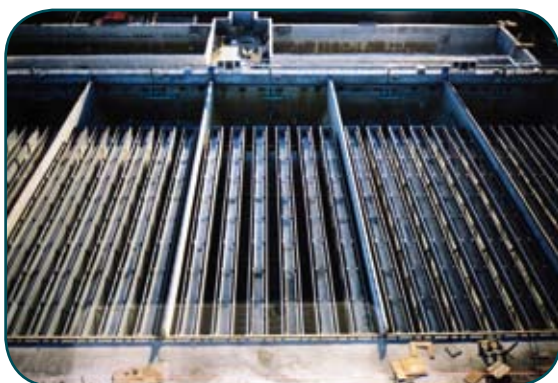
- Space requirement can be reduced by up to 90% when compared with a settlement tank.
- Unique, patented flow control system increases reliability.
- Up to 10 m² of settling area per square metre of ground area.
- Supplied as a complete unit for easy installation.
- Available in standard and site-specific versions.
- Minimal operating and maintenance costs.
- The operational reliability of the separator is increased by using the clarified liquid as the flow control medium, making the unit less sensitive to flow variations and reducing the risk of fouling.
- Allowing the feed to enter the plate assembly from the side rather than from underneath eliminates the risk of disturbing previously settled material.

How it Works

- 1) Effluent enters the unit through the inlet pipe (brown arrow) and flows downward through the inlet chamber in the centre of the unit, entering the plates through openings in the sides.
- 2) As the liquid flows upward the solids settle on the inclined, parallel plates and slide into the hopper at the bottom of the unit. In the hopper, the sludge is thickened prior to discharge through the sludge outlet (brown arrow).
- 3) The clarified liquid leaves the plate assembly through openings at the top and is discharged into collection channels leading to the clarified water outlet (blue arrow).
- 4) The openings at the top of the plate assembly are designed to create a pressure drop across the collection channels, ensuring that the flow is distributed uniformly between the plates and that the full area is utilised. This is a patented flow control feature.



Lamella Separator with DynaSand® Filter



Lamella Plate Packs in Concrete Tank

Configurations

LS Plate Separator

The system includes a conical sludge hopper and can be equipped with a sludge discharge scraper.

For flows of up to 180 m³/h.

LT Plate Separator

A combined separator and sludge thickening unit designed for liquids with high sludge contents.

For flows of up to 150 m³/h.

LP Plate Pack Assembly

For installation into either a concrete or steel tank. This option can also be installed in an existing tank to increase its capacity.

The largest pack is designed for flows of up to 300 m³/h.

Multiple packs can be installed in one tank.

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Certificate No. 961366

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