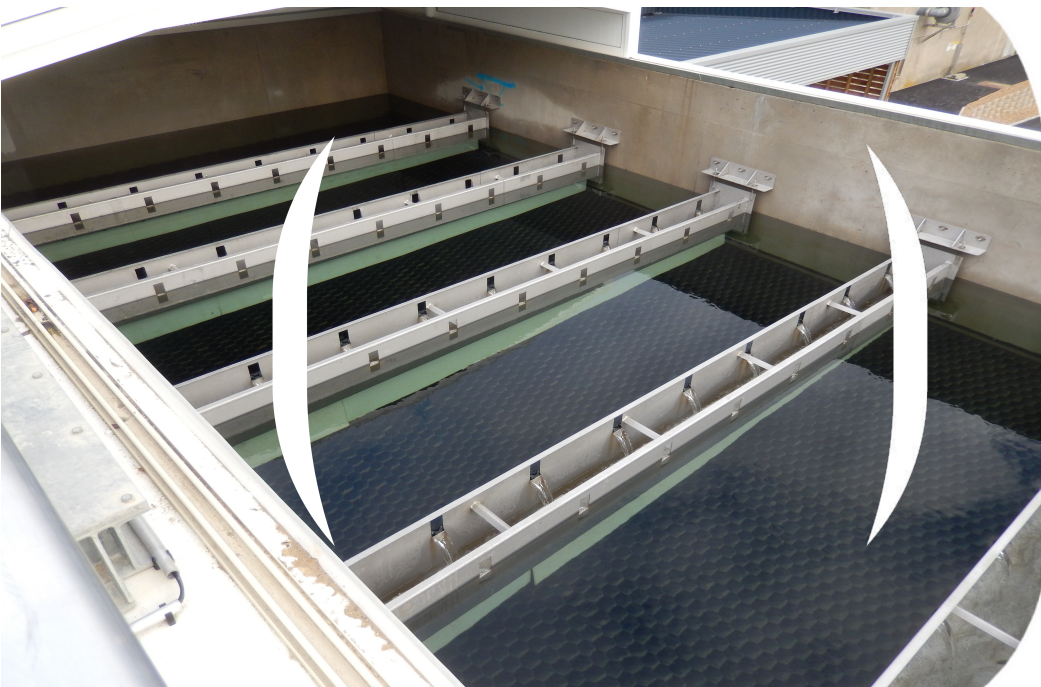


DELREB®

Physico-chemical Treatment using Rotating Sludge Lamellar Settlers

The **DELREB®** technology is used for physico-chemical enhanced settling, combining coagulation, flocculation, separation of suspended matter through high-water-depth lamellar settling, and sludge scraping.



The **DELREB®** technology offers the following advantages:

- Integrated sludge thickening, eliminating the need for a separate thickening facility and increasing process compactness.
- Sludge recirculation based on effluent characteristics or for tertiary treatment to benefit from the additional effect of the sludge bed.
- Patented automatic lamella cleaning system, LAM-CLEANER®.

It utilizes LAMEL-R® lamella plates designed by Stereau and assembled into tubes or honeycomb configurations, providing excellent mechanical strength.

The "projected" surface area varies depending on the model (spacing and length) and the application requirements of the process.

APPLICATION AREAS

Wastewater

Physico-chemical primary treatment
Refinement or phosphorus tertiary treatment

Drinking water

Pre-filtration clarification
Lime decarbonation process

Stormwater

Physico-chemical primary treatment

Compact physico-chemical settling process with vertical flow

Dimensioning criteria depend on the application and include Hazen velocity, lamellar height, and mass loading rate.

For dilute, low-loaded, or tertiary waters, recirculating pre-thickened sludge enhances flocculation by improving floc cohesion and reduces reagent consumption. The recirculated sludge acts as a flocculation support, promoting floc growth and settling ability. The probability of particle encounters is also improved.

The higher loading rate on the settler floor, due to recirculation and the sludge bed, creates a buffering effect, making the process less sensitive to variations in the influent water. For low-loaded waters, this optimization results in reduced reagent consumption and improved performance.



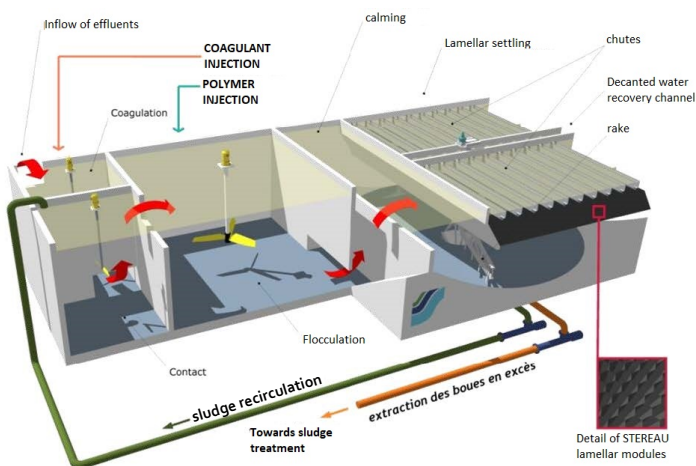
The integrated thickening allows direct sludge evacuation to the mechanical sludge dewatering unit.

The combined separation and thickening functions eliminate the need for an additional thickening facility, resulting in a significantly reduced footprint, simplified facility management and overflow control, and minimal water volume for odor control.



The LAMEL-R® lamella plates, their supports, and the collection troughs are Stereau equipment. Stereau has also developed

LAM-CLEANER®, a patented automatic lamella cleaning device that eliminates operational constraints, manual interventions, and sludge discharge.



RÉFÉRENCES

Wastewater : Chambéry, La Ciotat, St Brieuc, St Etienne, SIAAP Les Grésillons, Flaine, La Plagne
En tertiaire : Nîmes, Vitrolles, Crépy-en-Valois
Drinking water : Hennebont, Rémigny-la-Dheune, Fontgombault, Saulon-le-Chapelle.

FEATURES

Depending on the application:

- Integrated sludge thickening
- Sludge recirculation and integrated thickening
- Two types of lamella plates with different spacing and length
- Automatic lamella cleaning with LAM-CLEANER®