

PURAC LAMELLA SEDIMENTATION



The original GEWE® Lamella Sedimentation System

In contrast to other sedimentation techniques, GEWE® Lamella Sedimentation System offers optimised utilization of the sedimentation tank area. It also provides better treatment than other alternatives as the hydraulic conditions in the system of densely packed inclined lamella plates are perfectly controlled.

- Unsurpassed performance
- Unique concept
- Ultra-compact

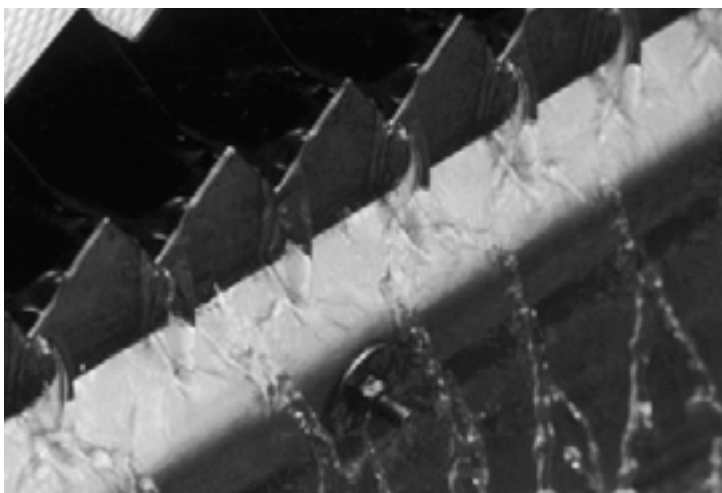
A BETTER BASIS FOR SEDIMENTATION

The proven GEWE® lamella system is defined as a counter-current system. The lamella sedimentation process, also known as inclined plate separation, operates with the up-flow of the incoming water in the opposite direction to the down-sliding sludge that settles on the plates.

Unlike other systems, the GEWE® Lamella Sedimentation System is designed for controlled and even dual-sided feed into each lamella cell, as well as controlled dual-sided discharge. The lamella plates extend above the water surface, providing perfect conditions for hydraulic control of each single cell. This ensures maximum use of the available sedimentation area of the lamella plates and prevents the influent from interfering with settling sludge.

While other systems are sensitive to variations in hydraulic load, the GEWE® Sedimentation System can cope with flow variations without compromising the effluent water quality.

Using GEWE® Lamella Sedimentation System, the hydraulic load is typically 15–25 m/h in the tank area, the inclination is 55 degrees and the distance between lamellas is 50–100 mm.



Ultra-compact

Its small footprint requires only 20% of the space used in conventional sedimentation.

Fast

Installation is rapid and simple. Start-up is immediate.

Flexible

GEWE® Lamella Sedimentation System is ideal for retrofitting and upgrading existing conventional sedimentation tanks. Most available types of sludge scrapers can be integrated into the system. Plus, it is possible to add a thickener function in the bottom of the tank.

Easy to maintain

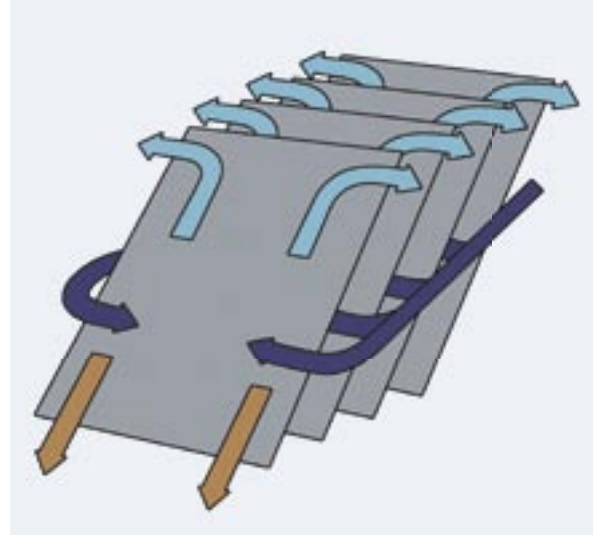
The complete system is made of virtually maintenance-free stainless steel, ASTM 304L or 316L. For easy maintenance, each lamella plate is individually retractable.



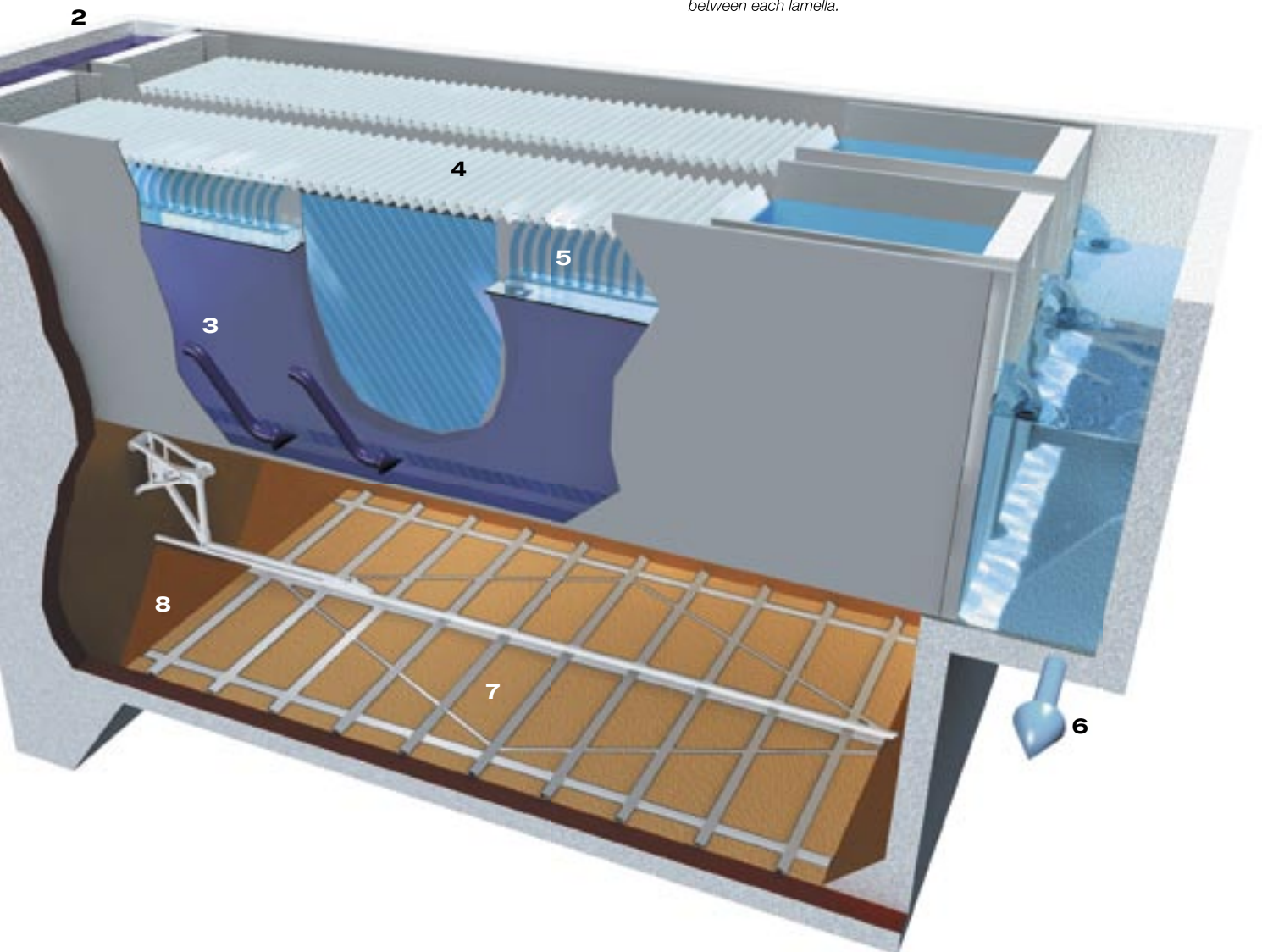
Andijk WTP, Amsterdam.

Equal flow to each lamella cell is secured by V-notched outlet weirs.

1. Inlet
2. Distribution channel
3. Inlet channel
4. Lamella plates
5. Outlet channel
6. Outlet
7. Sludge scraper
8. Sludge hopper

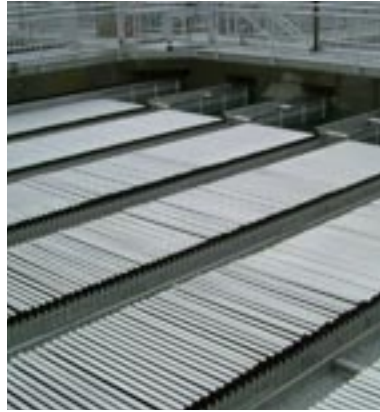


In the unique GEWE system, the in-flowing water does not collide with sludge that has already settled, and full control of flow is obtained between each lamella.





Installation of lamella plates at Como WWTP, Italy.



Purysburg WTP, USA.



Industrial effluent treatment at Nakskov sugar mill, Denmark.

Major references

Plant	Location	Capacity	Application	Completion
Kepong II	Malaysia	4200 m ³ /h	Potable water	2005
North Rumaila	Iraq	8390 m ³ /h	Process water	2004
Como	Italy	3000 m ³ /h	Wastewater	2003
Purysburg	USA	2366 m ³ /h	Potable water	2002
Chestnut	Singapore	1000 m ³ /h	Potable water	2002
Jelai	Malaysia	2100 m ³ /h	Potable water	2001
Kepong I	Malaysia	4200 m ³ /h	Potable water	2001
Jurong	Singapore	3300 m ³ /h	Wastewater	1998
Ulu Pandan	Singapore	10500 m ³ /h	Wastewater	1998
Bkt Sebukor	Malaysia	8000 m ³ /h	Potable water	1997
Kralingen, Rotterdam	Netherlands	7200 m ³ /h	Potable water	1991
Arilje	Serbia	4680 m ³ /h	Potable water	1988
Fort Collins	USA	3150 m ³ /h	Potable water	1987
Colorado Springs	USA	12500 m ³ /h	Potable water	1987
Gradole	Croatia	3780 m ³ /h	Potable water	1986
Belgrade	Serbia	7920 m ³ /h	Potable water	1985
Andijk, Amsterdam	Netherlands	15000 m ³ /h	Potable water	1981
Stehag	Sweden	4300 m ³ /h	Potable water	1974

Please contact us for more information about the Purac proven process and improved leading edge technologies.

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