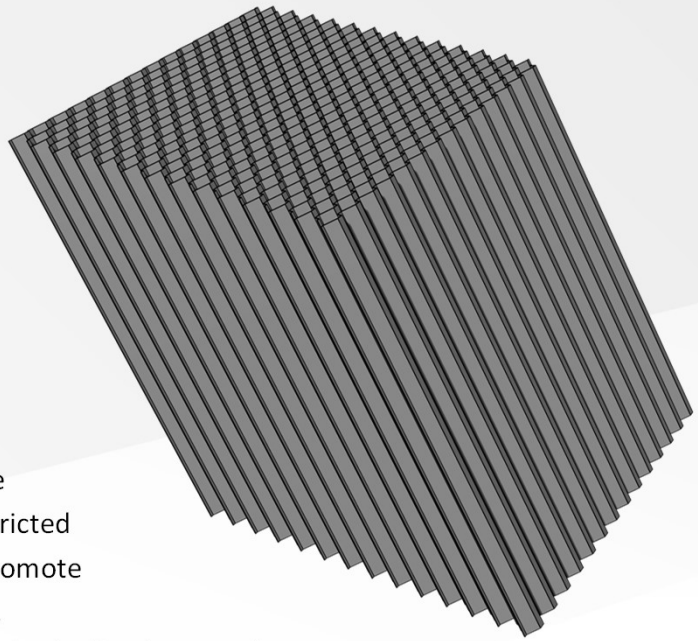
Refill TECH SOLUTIONS

LSM 50+

Lamella Settler Modules for Water Treatment



LSM 50+ (Lamella Settler Module 50 mm) is a parallel-channel lamella pack manufactured by assembling thermoformed and specially shaped **PVC** or **PS (polystyrene)** sheets to optimize sedimentation and clarification processes.

Design and Construction Features

The **LSM 50+ lamella pack** is designed to maximize the effective projected surface area while ensuring unrestricted liquid flow. Its smooth honeycomb-profile channels promote efficient solids settling and reduce the risk of clogging.
LSM modules are available in various dimensions, lengths, inclinations, and customized configurations, making them suitable for both rectangular and circular tanks.
The structure is self-supporting and can be installed without metal frames; however, support structures are recommended to facilitate handling, installation, and maintenance.

Main Applications:

The channel dimensions and high specific surface area make LSM lamella packs particularly suitable for numerous water treatment applications, including:

- Primary and secondary clarifiers in wastewater treatment plants
- Clariflocculators
- Oil and hydrocarbon separation systems (oil separators)
- Settling tanks in drinking water treatment plants
- Tertiary treatment and water polishing systems
- Industrial water clarification and process water recovery systems

Materials:

LSM 50+ lamella packs are manufactured from thermoformed **PS (Polystyrene)** or **PVC** sheets, both supplied in **black (carbon black)** for enhanced resistance to UV exposure during storage and outdoor handling.

Material	Color	Standard Thickness	Op. Temperature
PS (Polystyrene)	Black (carbon black)	1000 µm	-5°C to +80°C
PVC	Black (carbon black)	900 µm	-5°C to +65°C

Head Office & Facility: Via Belvedere, 14 – 20862 Arcore (MB) – ITALY – Tel. +39 039 5788021 – info@refill-tech.it | www.refill-tech.it

Lamella Settler Modules for Water Treatment

Formats and Assembly:

The dimensions of the lamella packs are determined by the maximum sheet size achievable through our thermoforming production lines. Thanks to its high manufacturing flexibility, the **LSM 50+** can be produced in a wide range of configurations to meet the specific requirements of each installation.

The product can be supplied:

- **Pre-assembled,** ready for installation.
- **As individual sheets for on-site assembly,** significantly reducing transport volume and logistics costs, particularly for large-scale installations.;

The modules can be assembled using:

- **Chemical bonding,** with a solvent-based adhesive that leaves no residue in the finished product.
- **Thermal welding,** providing a strong and durable joint.

Per entrambe le tecnologie, **Refill-Tech** è in grado di fornire le attrezzature e le macchine necessarie per eseguire correttamente le operazioni di assemblaggio direttamente presso il sito di installazione.

Standard Module Sizes:

The **LSM 50+** lamella packs are available in standard configurations optimized for both sedimentation and oil separation applications.

Application	Width	Inclination	Channel Pitch	Height Range	Projected Surface Area
Settling Tank	1200 mm	60°	38 mm	550 ÷ 1320 mm	16,4 m²/m³
Oil Separator	1200 mm	45°	47 mm	430 ÷ 1295 mm	23,2 m²/m³

Hydraulic Data (60° Inclined Modules)		
Hydraulic Radius	**Equivalent Diameter**	**Maximum Opening**
1,38 cm	5,52 cm	52 mm

