

LAMELLA PLATES PACKING

LPP Series

Capacity up to 200 m³/hr



UNITED INTERNATIONAL
HYDRO ENG. TECH

GENERAL DESCRIPTION

Lamella Plates Packings (LPP) are common oil separation systems due to their simplicity, modularity, and economic cost. LPP Oil Separator have no moving parts, the configuration of plates simply enhances the coalescence of small droplets making them larger which is reflected in a faster rise rate according to Stoke's Law.

Moreover, a proper arrangement of inclined plates at slope of 60° will force the fluid stream to rise while passing between plates, decreasing the rise distance of oil droplets. In contrast, solids gathered between plates will sink by gravity moving backward ideally towards the sludge hopper. In addition to the above, this simple process results in a very low failure possibility and requires minimum efforts for maintenance as plates can be removed individually for cleaning and replacement.



PRINCIPLE OF WORK

The LPP Oil Separator forces the water stream to pass through narrow tortuous inclined paths inside the plates. This hard path increase the probability of collision between oil droplets, which tend to accumulate and form larger drops. Oil droplets also stick to plates surface breaking from water stream, and they get larger as more drops collide with them until they reach to sufficiently large size where gravitational rising force is able to pull them out of plates. These separated large oil drops have diameter of hundreds of microns, or even millimeters, and hence they rise easily to top surface. The Corrugated Parallel Plate Cabinet Oil Separator product is modular and customizable; it is afforded to meet the specific application and situation for each customer. The number of plates and dimensions are determined by various calculations considering the influent flow amount, characteristics and desired product specifications.



LAMELLA PLATES PACKING

LPP Series

Capacity up to 200 m³/hr



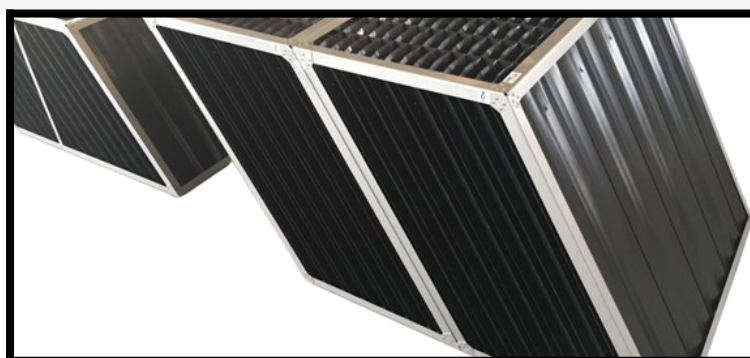
UNITED INTERNATIONAL
HYDRO ENG. TECH

TYPICAL APPLICATIONS

- Oil Water Separation
- Activated sludge, wastewater
- Removal of oil from ammonia
- Petroleum plants/ refineries
- Separation of water from hydrogen peroxide
- Landfill leachate waste water
- Oxidation of ferric, manganese and arsenic
- Wetland water treatment systems
- Lube oil recovery
- Industrial wastewater treatment
- Agricultural waste water
- Chemical processing

FUNCTION

The LPP main function is to enhance the oil-water separation systems by capturing the small oil droplets of the oily water stream, enlarge their size, and help to float the oil to the top surface. Moreover, the Lamella Plate Separator can collect other suspended solids also that pass throw plates and enhance the water stream overall parameters.



Technical Parameters

Material	Tube Spacing (mm)	Thickness (mm)	Quantity (Plates/m)	Plate Length (mm)	Plate Width (mm)	Total Area (m2)
Stainless Steel 304/316	25	0.5	36	750	600	16
	25	0.5	36	750	600	16
	25	0.5	36	750	600	16

LAMELLA PLATES PACKING

LPP Series

Capacity up to 200 m³/hr



UNITED INTERNATIONAL
HYDRO ENG. TECH

BENEFITS & FEATURES

- Lower Disposal and Maintenance Costs
- Applicable to various pipe materials and dimensions
- Inlet water temperature is up to 100°C
- Improved Fluid Quality, Value and the oil separation
- Enhance the raw water quality by getting rid of impurities and suspended solids
- No electrical power supply required, so no additional operating cost
- Very low maintenance cost since there are no moving parts
- Made from high-quality materials
- Highly resistant to most acids and alkalis
- High tensile & compression strength
- Lightweight and rigid
- Offers proven performance with years of expected service
- High efficiency and capacity combined with compact volume



What our tube settler can do for you?

Stainless Steel Lamella clarifier inclined settler media is very suitable in all different clarifiers and removing sand. It is regarded as universal water treatment equipment in water supply and drainage engineering. It has wide application, high handling efficiency, small area, etc. It is suitable in removing sand in inlet, industry and drinking water precipitation, separation in oil & water.

The modular and cubical self-supporting settler design of Inclined Tube Settlers aids handling during installation and any subsequent maintenance.

Stainless Steel Lamella clarifier inclined settler media for trickling filter for sewage water treatment design avoids thin wall membranes and utilizes forming techniques to minimize component stress and subsequent environmental stress cracking fatigue.

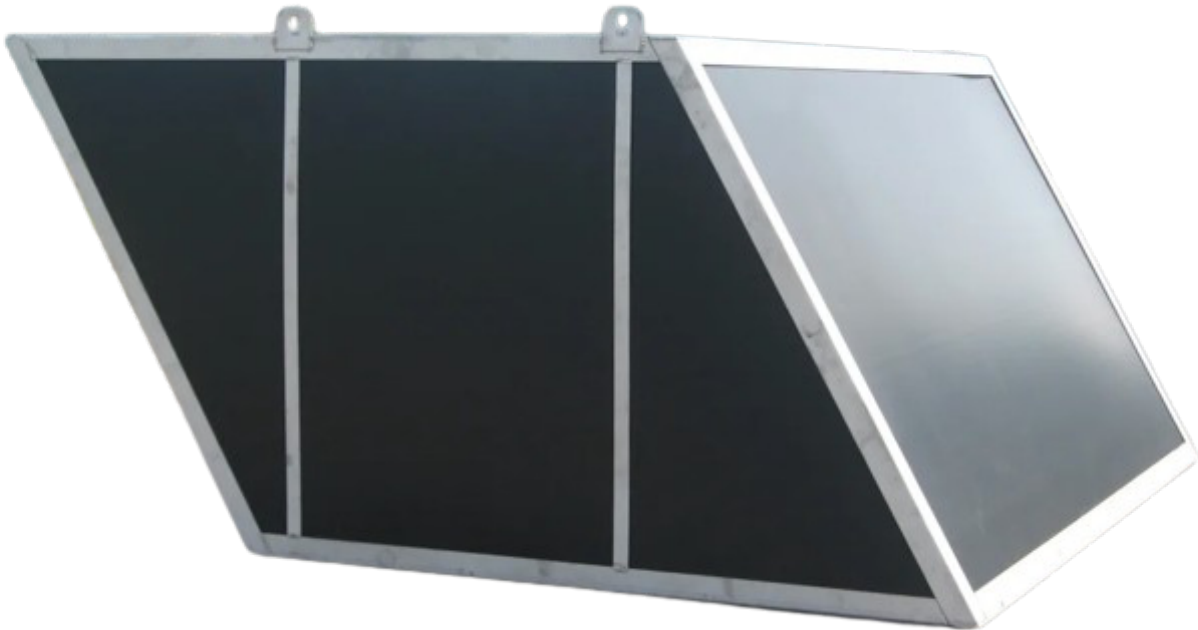
Stainless Steel Lamella clarifier inclined settler media for sewage water treatment offers an inexpensive method of upgrading existing water treatment plant clarifiers and sedimentation basins to improve performance. They can also reduce the tankage/footprint required in new installations or improve the performance of existing settling basins by reducing the solids loading on downstream filters.

LAMELLA PLATES PACKING

LPP Series
Capacity up to 200 m³/hr



UNITED INTERNATIONAL
HYDRO ENG. TECH



MODEL	FLOW RATE	HEIGHT (A)	DEPTH (B)	WIDTH (C)	TOTAL AREA PER CABIN (M²)		
	(M³/HR)	(MM)	(MM)	(MM)	D35	D50	D80
HCLPP-120	120	1,550	700	650	120	85	71
HCLPP-140	140	1,860	700	650	144	102	85
HCLPP-160	160	2,170	700	650	168	118	99
HCLPP-180	180	2,480	700	650	192	135	113
HCLPP-200	200	2,790	700	650	216	152	127