GSD (China) Co., Ltd.

LST SERIES

Lamella Clarifier

www.gsd.net.cn

Lamella Clarifier

Lamella Clarifiers are designed to remove high concentrations of suspended solids from water, where the solids have a specific gravity >1.0.

The Lamella Clarifier consists of a series of closely spaced flat plates inclined at 60° angle. Preconditioned water with entrained solids enters the plate pack and flows between the plates. The path length, plate spacing, were designed depend by defference capacity. As the water flows between pairs of plates, the heavy solids with a specific gravity higher than the surrounding water will settle onto the top surface of the lower plate, and slide down the inclined surface to be collected in the sludge hopper. Clear, near solids-free water then exits the top of the plate area and flows over an adjustable weir.

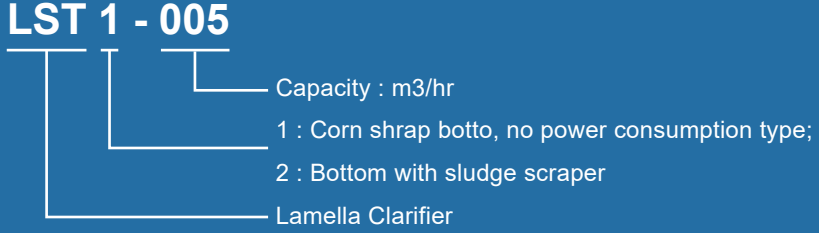
Application

- Industrial wastewater treatment: electric, semiconductor, electroplating, chemical wastewater etc.
- Replace traditional secondary clarifier after biological treatment.
- Waste water treatmentplant up-grade.
- River, lake treatment.

Features

- Higher efficiency, smaller footprint: inclined plates extended to 1.5m-2m, separation efficiency improved (higher 1.5 - 2.0 times) comparing with radial flow clarifier and horizontal clarifier and save 80% of footprint.
- Equal water distribution and synchronous water collection .No blind angle and vortex.The whole tank is in operation of equal hydraulic load.
- Inclined plates Chokeless: plates are of angle 60 degrees, spacing between 80 ~ 100 mm, back-washing device used.
- Strong and durable:Adopt 5-6mm hard UPVC plates , 8mm PP plates, stainless steel plates as separation plate, module embedded installation, high strength, easy disassembling and maintenance.
- Sludge discharge smoothly: no blind angle.Sludge is discharged by negative pressure suction.

Model Infomation



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Component

The standard treatment process includes flocculaant & coagulant dosing and mixing, followed by solids separation with automated sludge wasting.

Flocculants and Coagulants are added to improve the settling time. Coagulants neutralize the negative charge particles allowing them to sink faster. Flocculants allow for the small particles to collect and accumulate. This will make the solids heavier and easier to settle.

No.	Description	No.	Description
1	Inlet	8	Water outlet
2	Coagulants tank	9	Sediment outlet
3	Mixer for coagulants tank	10	Sediment hopper
4	Flocclants tank	11	Lamella plate
5	Mixer for flocclants tank	12	Sludge cone scraper
6	Motor gear for sludge cone scraper	13	Water flow channel
7	Weir of water outlet		

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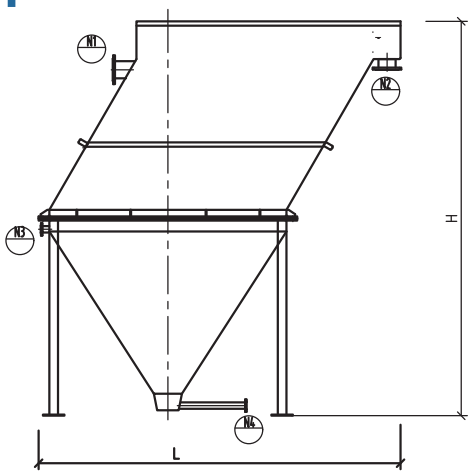
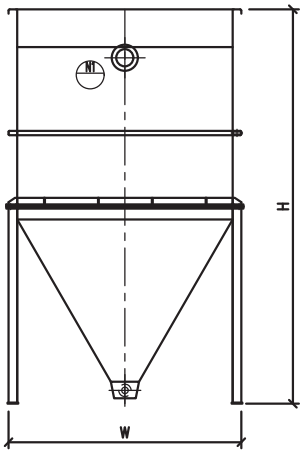
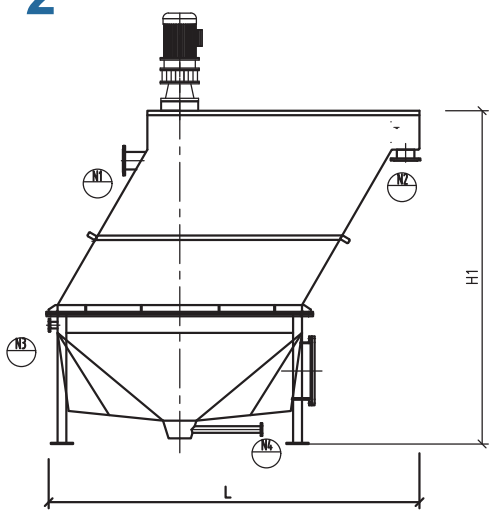
Specification			Unit	Model					
				LST1-005 LST2-005	LST1-010 LST2-010	LST1-020 LST2-020	LST1-030 LST2-030	LST1-040 LST2-040	LST1-050 LST2-050
Effective setting area			m2	5	10	20	30	40	50
Water flow rate			m3/hr	5	10	20	30	40	50
Sludge scraper power (Model : LST2)			Kw	0.25	0.25	0.25	0.25	0.25*2	0.25*2
Connection size	Water inlet	N1	DN	80	100	150	150	200	200
	Water outlet	N2	DN	50	80	100	150	150	200
	Sludge outlet	N4	DN	50	50	50	50	50	50
	Back washer	N3	DN	50	50	50	50	50	50
Dimension	L		m	2.6	3.4	3.4	4.2	5.4	6.3
	W		m	1.6	1.8	2.2	2.2	2.2	2.2
	H (Model : LST1)		m	2.9	3.6	3.6	3.6	3.6	3.8
	H/H1 (Model : LST2)		m	3.4/2.5	3.87/3.0	3.87/3.0	3.87/3.0	3.87/3.0	3.87/3.0
weight			Kg	2700	3300	3800	5200	5700	6900

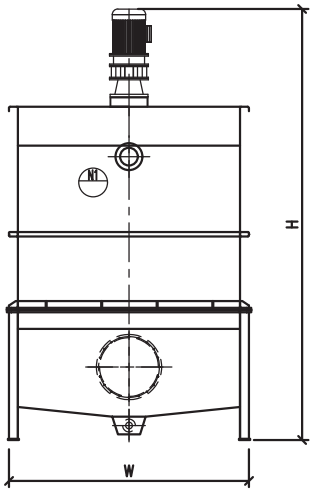
LST 1





LST 2





Accessroy Equipment

Machincal chamical reaction tank

Model	Capacity	Eff.Volume	Coagulation		Flocculation		Dimension (m)			Connection (mm)		
			Time	Mixer Power	Time	Mixer Power	L	W	H/H1	Inlet	Outlet	Drain
	(m3/h)	(m2)	(min)	(kw)	(min)	(kw)						
MFR 003	~ 3	1.5	15	0.2	15	0.2	0.8	1.0	1.8/1.5	50	80	80
MFR 005	~ 5	1.5	9	0.2	9	0.2	1.8	1.0	1.8/1.5	50	80	80
MFR 010	~ 10	2.4	7.2	0.4	7.2	0.2	2.2	1.2	1.8/1.5	100	100	100
MFR 020	~ 20	5.2	7.8	0.4	7.8	0.2	2.6	1.4	2.6/2.1	100	150	100
MFR 030	~ 30	7.4	7.5	0.75	7.5	0.2	3.0	1.6	2.7/2.2	150	150	100
MFR 040	~ 40	10.2	7.5	0.75	7.5	0.2	3.4	1.8	2.8/2.3	150	200	100
MFR 050	~ 50	10.2	6.1	0.75	6.1	0.2	3.4	1.8	2.8/2.3	150	200	100
MFR 060	~ 60	13	6.5	1.5	6.5	0.4	3.8	2.0	2.8/2.3	200	250	100
MFR 070	~ 70	16	6.8	1.5	6.8	0.4	4.2	2.2	2.8/2.3	200	250	100
MFR 080	~ 80	16.8	6.3	1.5	6.3	0.4	4.2	2.2	2.8/2.3	200	250	100
MFR 100	~ 100	18.5	5.5	2.2	5.5	0.4	4.6	2.2	2.8/2.3	250	300	100

PH adjustment equipment depend to request