



U. S. AQUATREAT CO.

LAMELLA CLARIFIER



Process application:

Lamella clarifiers are designed to remove particulate matter from liquids. These systems have been used extensively for industrial, construction and environmental remediation applications. In contrast to conventional sedimentation/clarifying units, lamella clarifiers contain a series of inclined plates/tubes, which provide a large effective settling area within a considerably smaller footprint. The influent solid/liquid stream flows upon entry into the lamella clarifier unit, and solid particles settle onto the plates, accumulating and thickening in collection hoppers at the bottom of the unit; the clarified liquid exits the system through an outlet weir from top.

Construction:

Typical lamella clarifier design consists of a series of inclined plates/tubes inside a tank. The untreated feed water stream enters from the top of the vessel and flows down a feed channel underneath the inclined plates/tubes. Water then flows up inside the clarifier between the inclined plates/tubes. During this time solids settle onto the plates and eventually fall to the bottom of the tank in to the hopper. Hopper is a conical part of the tank. Route of particle taken will be dependent upon the flow rate of the suspension and the settling rate of the particle. At the bottom of the tank a hopper or funnel collects these particles as sludge. Inclined lamella clarifier design based on plates, hexagonal or rectangular tubes. As per its construction it is named as:

- Lamella tube settler
- Lamella plate settler

