

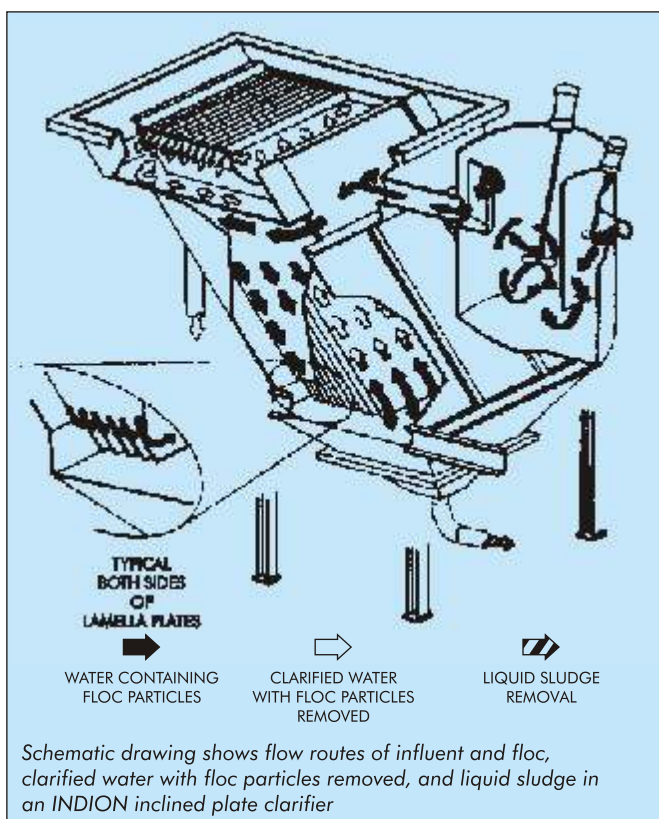
INDION

Inclined Plate Clarifier (IPC)

The big advantage of being small

The INDION IPC provides an effective answer for the clarification of water and waste water.

The inclined plate clarifier achieves solid-liquid separation by directing the liquid between a series of inclined plates. The settling surface of each plate is equivalent to its horizontal projection. Plates are normally spaced approx. 2 inch apart, with the result that large settling surfaces are concentrated within a relatively small floor area.



Stacking the inclined plates results in the separator having upto ten times the clarification area of a conventional circular settling tank occupying the same floor space. In other words, for the same liquid flow, the inclined plate clarifier would occupy 1/10th the floor area of a conventional clarifier.

A number of standard sizes are available, sizes designated by the settling area. The capacity for each size depends on the type of solid being separated and can be determined experimentally using settling tests.



Salient Features

- **Flow entry:** The flow enters from both sides of the plate. Distribution and entry velocities are minimum to optimise the hydraulic flow regime, resulting in full plate utilisation, maximum efficiency and better effluent quality.
- **Weir take-off:** A weir launder provides an effective weir length. The weir has orifices on either side of each plate.
- **Removable plates:** Individual plates are easily removable even during operation, making the unit very simple to maintain. The design offers flexibility to handle changes in influent characteristics.
- **Hopper arrangement:** Several options are available for sludge storage. The standard arrangement is hopper bottom with a structural support frame. A second option is to mount the inclined plate clarifier on top of a thickener in order to achieve a higher solids concentration, while producing a large sludge volume.

Advantages

- The design ensures laminar, stable flow and excellent effluent quality.
- Modular design.
- Occupies 1/10th space required by conventional clarifiers.
- No moving parts.
- Material of construction can be steel or concrete depending on size.
- The plates can be lifted easily and cleaned without operation shutdowns.

Applications

- Ash/scrubber waste treatment
- Brine clarification
- Clarification of water
- Coal and other mineral separation
- Filter backwash water recovery
- Food and dairy processing and waste treatment
- Iron removal
- Metal hydroxides separation
- Mill scale separation
- Municipal water and waste treatment
- Phosphorous acid waste treatment
- Plating and finishing waste treatment
- Semi-conductor process waste treatment



Installation of 19 MGD inclined plate clarifier at a 2 x 250 MW thermal power station.

These are a few of the major applications. However, inclined plate clarifiers can be used in almost every industry for solid-liquid separation.

Laboratory & pilot plant capabilities and trained technical experts ensure the optimum size of inclined plate clarifier to suit your requirements.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange LLC maintains a policy of continuous development and reserves the right to amend the information given herein without notice.



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