

CLARIFER SYSTEMS

Offering an extremely effective solution for a variety of applications in a stand alone packaged format which minimizes lead times and cost while maximising efficiency and performance

PACKAGED CLARIFIER SYSTEMS MAIN APPLICATIONS

- Potable water treatment incorporating chemical addition and flocculation
- Solids precipitation (inc. metals) and removal from industrial wastewater
- Tertiary treatment of wastewater
- Removal of fibrous materials from industrial process / waste streams



MAIN PROCESS STAGES

CHEMICAL DOSING -

Chemicals are generally added to precipitate particles from the flow. Typically, these chemicals are used for pH control, flocculation and coagulation. These chemicals are dosed at strategic points in the process prior to settlement and are mixed thoroughly using the system provided.

MIXING - Three stage.

The chemicals are dosed at certain locations in the mixing phase. The mixing tanks offer an excellent dosing system whereby the optimum contact times and mixing regimes are achieved. The first mixing tank is a high speed flash mixer providing an aggressive mixing. The second and third are slow speed paddle mixers to build the floc. as much as possible.

SETTLEMENT -

Lamella tubes/plates are used to settle the coagulated particles into the collection hoppers at the bottom of this settlement tank. This design ensures maximum efficiency in terms of upward flow velocities. The clarified water weirs over into the troughs at the top of this tank for immediate use or for further treatment.



DESLUDGING -

The solids settle into collection hoppers positioned below the lamella tubes/plates. The number of collection hoppers will depend on the capacity of the plant and the material being processed. The sludge is discharged from these hoppers periodically via actuated valves, the duration and frequency of which is fully adjustable.

PACKAGE CLARIFIER SYSTEM OPTIONS

Colloide can design and build various options into the clarifier system. These include:

- De-scumming system
- Various materials and types of lamella tubes / plates used
- Walkways and ladders
- Control options

SYSTEM MAIN FEATURES

Retained design means quality:

Standard designs are used for every plant. This means that the designs are proven, there is no need for costly engineering time on every plant and the plant can be delivered to site in a much shorter time than conventional units.

No civil requirements:

The clarifier is self supporting and can be positioned on a flat surface, without the need for walls, access platforms, tanks, etc. This reduces cost and, again, time.

Lead time:

Due to the standard nature of these plants, lack of civils and other site work, the lead time is minimized. A typical unit can be delivered to site in 10 weeks, having been fully factory tested and commissioned.

Transportation:

The system is designed with both transportation and the minimization of site work in mind. Therefore, the unit's cross sectional area will always be suitable for road transport and can be delivered in one or two sections (dependent on capacity of unit).

Installation & commissioning:

The actual installation period on site is taken up by offloading and bolting together of the parts. This takes a maximum of one day for each unit - no longer. Once the pipework is connected, the plant is ready for commissioning.

In built flexibility:

The system is as flexible as possible from a process point of view. Chemicals can be dosed at several locations, mixer speeds can be varied, both the desludging frequency and duration are adjustable, etc.

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