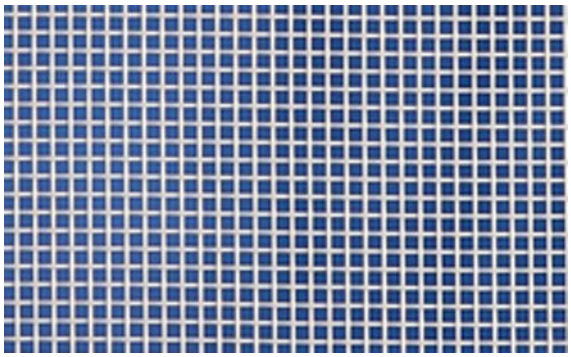
Clarifier Systems

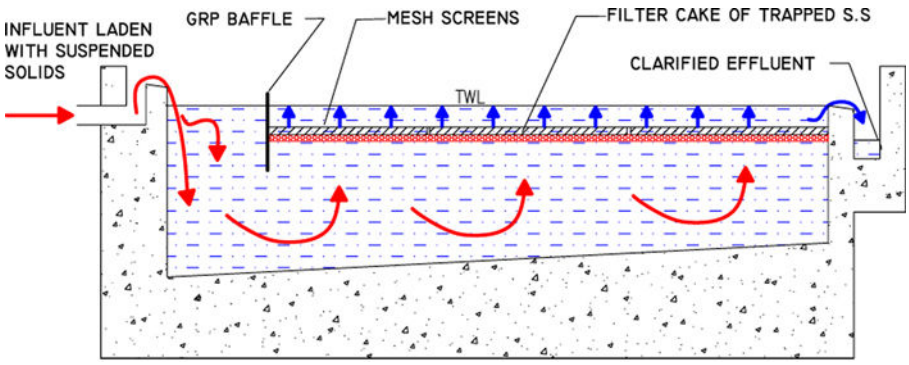
Clarifier Operation



The Locker Clarifier System operates on the principle of cake filtration, with the filter mesh media upon which the cake is formed having a high open area of 61%.

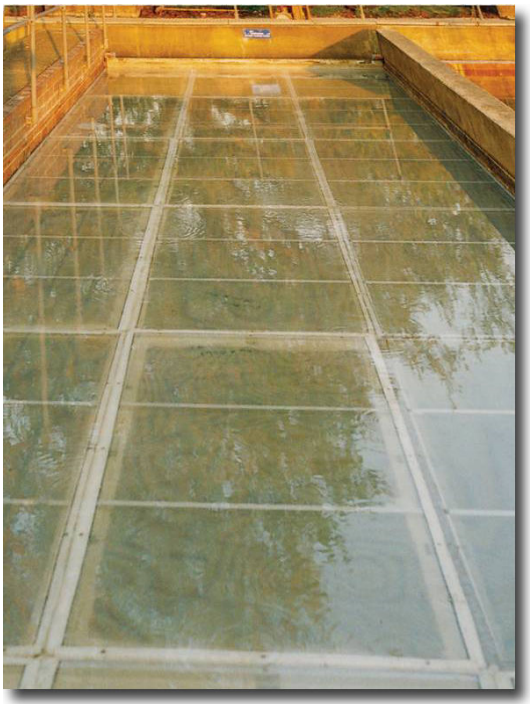
This minimises differential pressure and enables the screens to handle higher hydraulic loadings, typically 1.67m3/m2/hr for end-flow and pyramidal (Dortmund) type tanks, and up to 5m3/m2/hr for radial tanks fitted with the Locker Auto-Cleaner.

Horizontal End Flow Tank Schematic



The performance of the settlement tank is improved by the clarifier screens as follows:

- The uniform distribution of the numerous apertures of the precision filter mesh equalises the hydraulic loading over the entire area of the screens, this enhances natural settlement of the larger, denser solids particles and attenuates the effect of upwelling currents at the weir.
- The less dense particles of rising suspended solids converge as they approach the apertures of the mesh and flocculate to form a filter cake on the underside of the screen panels. This filter cake retains fine solids which would otherwise be discharged into the weir channel.



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