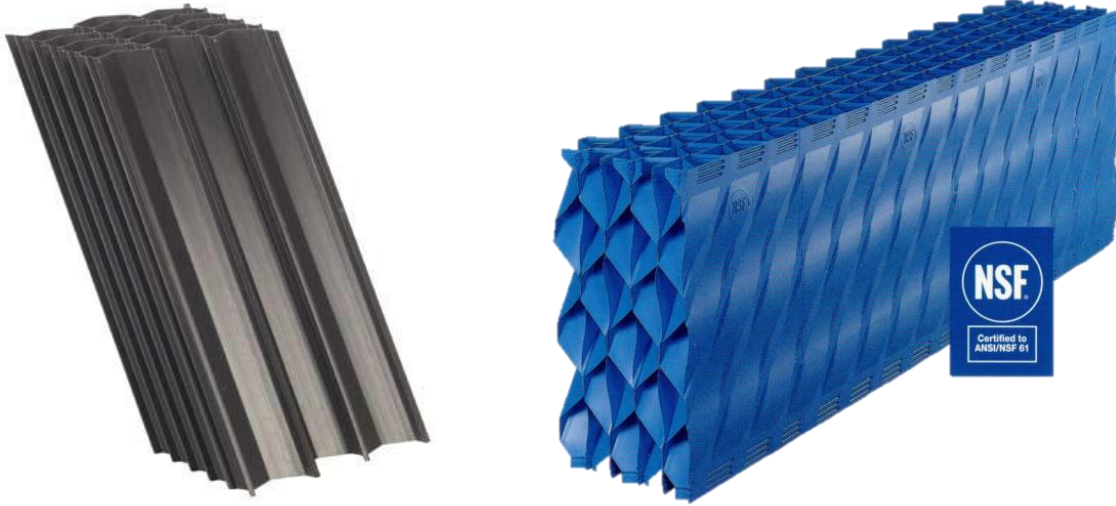


Tube Settlers

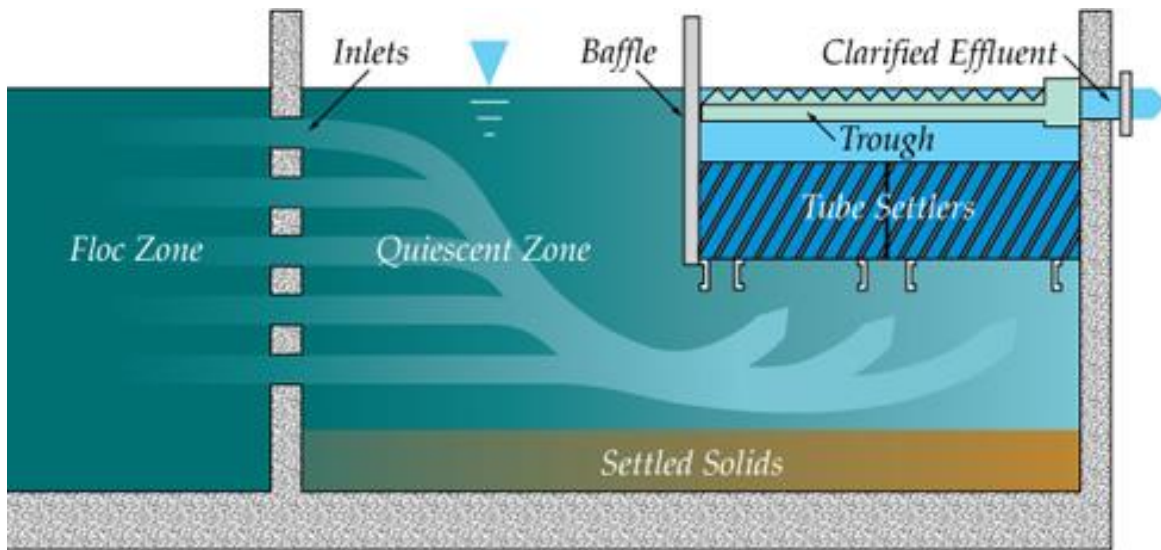


We all need water to survive. Industry needs water for the production of food and industrial products. Yet there are many pollutants reducing the quality of the available resources.

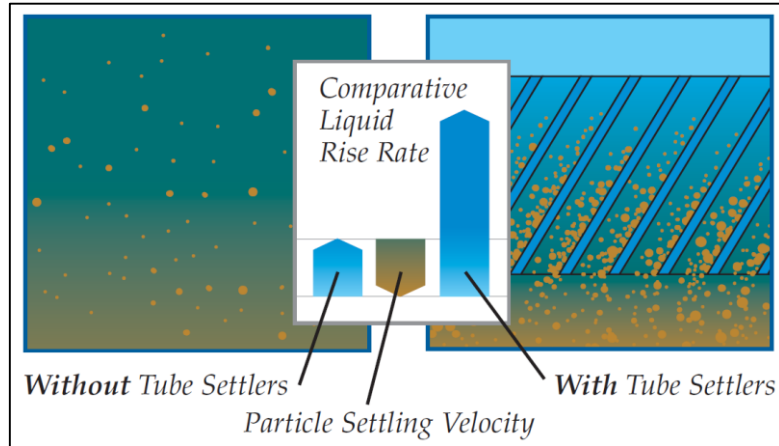
Tube settlers offer an inexpensive method of upgrading existing water treatment plant clarifiers and sedimentation basins to improve performance. They can also reduce the tankage/footprint required in new installations or improve the performance of existing settling basins by reducing the solids loading on downstream filters.

We add *tube settlers* to clarifiers and sedimentation basins in rectangular or circular configurations, so we can increase water treatment flow rates by as much as 75%.

The *tube settlers* provide a series of inclined surfaces for suspended particles to rapidly collect and settle upon while the clarified effluent flows out of the tank and on to the next stage of the treatment process. When the collected particles become heavy enough, they fall from the tube modules and descend to the bottom of the clarifier.



The flow in the settling zone is directed through the inclined tubes which enable settled solids to slide downward after being collected. In addition to enhancing laminar flow conditions, the inclined surfaces of the tubes reduce the distance that particles need to travel before settling. The particles begin to agglomerate as soon as they hit the surface of the tube. The newly created agglomerated particles settle much more rapidly than fine particles and slide off the settling surface and move toward the bottom of the clarifier for collection and discharge. This rapid settling effect maximizes the effective surface area for settling, thereby minimizing clarifier footprint.

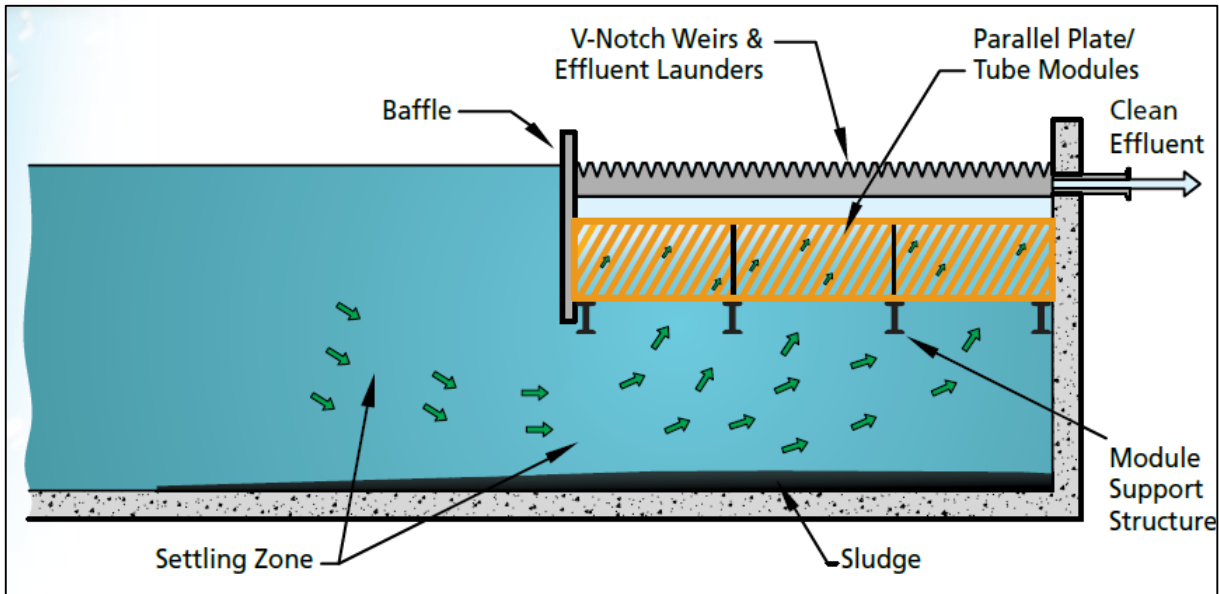


- **ADVANTAGES OF TUBE SETTLERS :**

The advantages of tube settlers can be applied to new or existing clarifiers/basins of any size:

1. Clarifiers/basins equipped with tube settlers can operate at 2 to 4 times the normal rate of clarifiers/basins without tube settlers.
2. It is possible to cut coagulant dosage by up to half while maintaining a lower influent turbidity to the treatment plant filters.
3. Less filter backwashing equates to significant operating cost savings for both water and electricity.
4. New installations using tube settlers can be designed smaller because of increased flow capability.
5. Flow of existing water treatment plants can be increased through the addition of tube settlers.

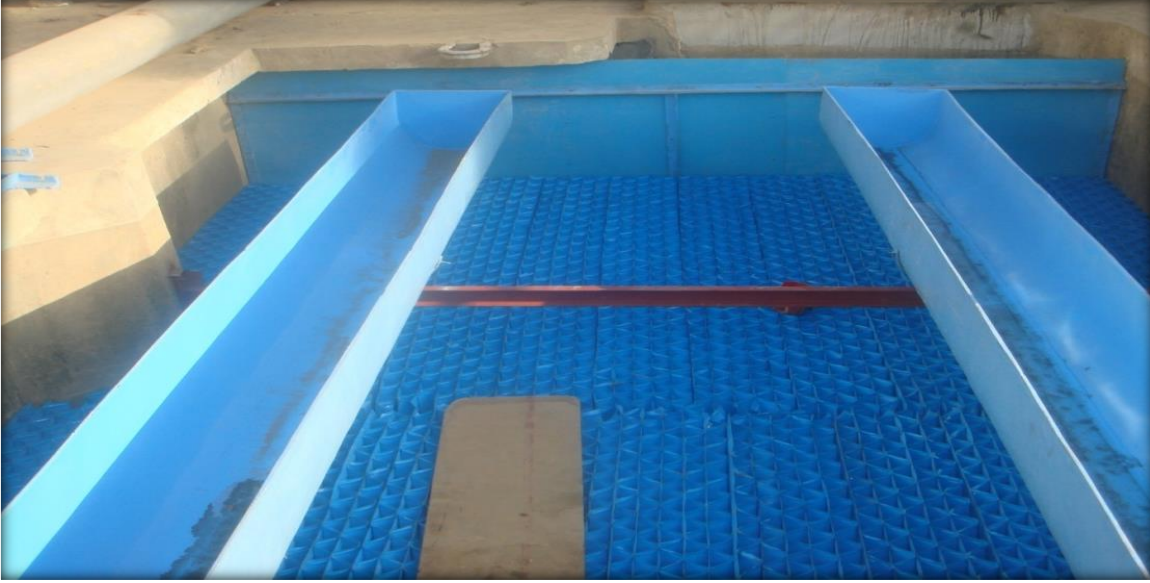
6. Tube settlers increase allowable flow capacity by expanding settling capacity and increasing the solids removal rate in settling tanks.



Kafr El-Sheikh WTP









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**Non-Metallic Chain System
for Sludge Collection**









