

Plate Settler Sourcing

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As the AguaClara project continues to expand, the desire to design and construct water treatment plants as efficiently and effectively as possible is becoming more relevant. The plate settlers that AguaClara is currently designing and suggesting that the communities build are relatively cheap to build, but are extremely meticulous and time intensive to construct. This page is dedicated to an assessment of outsourcing the construction and possibly the design of the settlement systems in AguaClara water treatment plants. It takes into account economics, maintenance, durability, environmental impact, and supply chain issues.

Relevant Information

- AguaClara sedimentation tank up flow velocity below the plate settlers is 70 m/day
- AguaClara sedimentation tank capture velocity 10 m/day
- AguaClara sedimentation Area ratio, Velocity Up/Velocity Capture is on the order of 10, ideally we want this ratio to be as high a number as possible
- AguaClara currently uses a sedimentation tank plate settler angle of 60 degrees, plate length of 1 meter at 60 degrees; plate material is transparent polycarbonate sheets
- AguaClara engineer John Erickson has given a very optimistic estimate of 20 years of water plant use for the polycarbonate sheets
- John has also stated that the plates that were introduced into the town of Ojojona Honduras's AguaClara plant were constructed of fiberglass and after 2.5 years are already showing significant signs of wear and tear
- The next prospective AguaClara plant to be constructed would be in the town of Gracias Honduras.
- Gracias plant flow rate of 50 liters/sec
- Gracias would have an active sedimentation tank area of 14.026 meters x 2.159 meters per tank, and there would be 3 tanks

[Lamella Theory](#)

[Plate Settler Module](#)

[Current AguaClara Plate Settler Module Cost](#)

[Settling Tank Drawing](#)

[Construction of AguaClara Plate Settlers](#)

Companies of Interest

[Brentwood Industries](#)

[Enviropax](#)

[Siemens](#)

[Meurer Research Inc.](#)

[Analysis](#)

[Recommendations After Analysis](#)

Settling System Sourcing Meeting Minutes

[AguaClara Settling System Meeting Minutes 4.10.09](#)

[AguaClara Settling System Meeting Minutes 4.17.09](#)

[AguaClara Settling System Meeting Minutes 4.30.09](#)

[Quiz](#)

[Future Challenges](#)