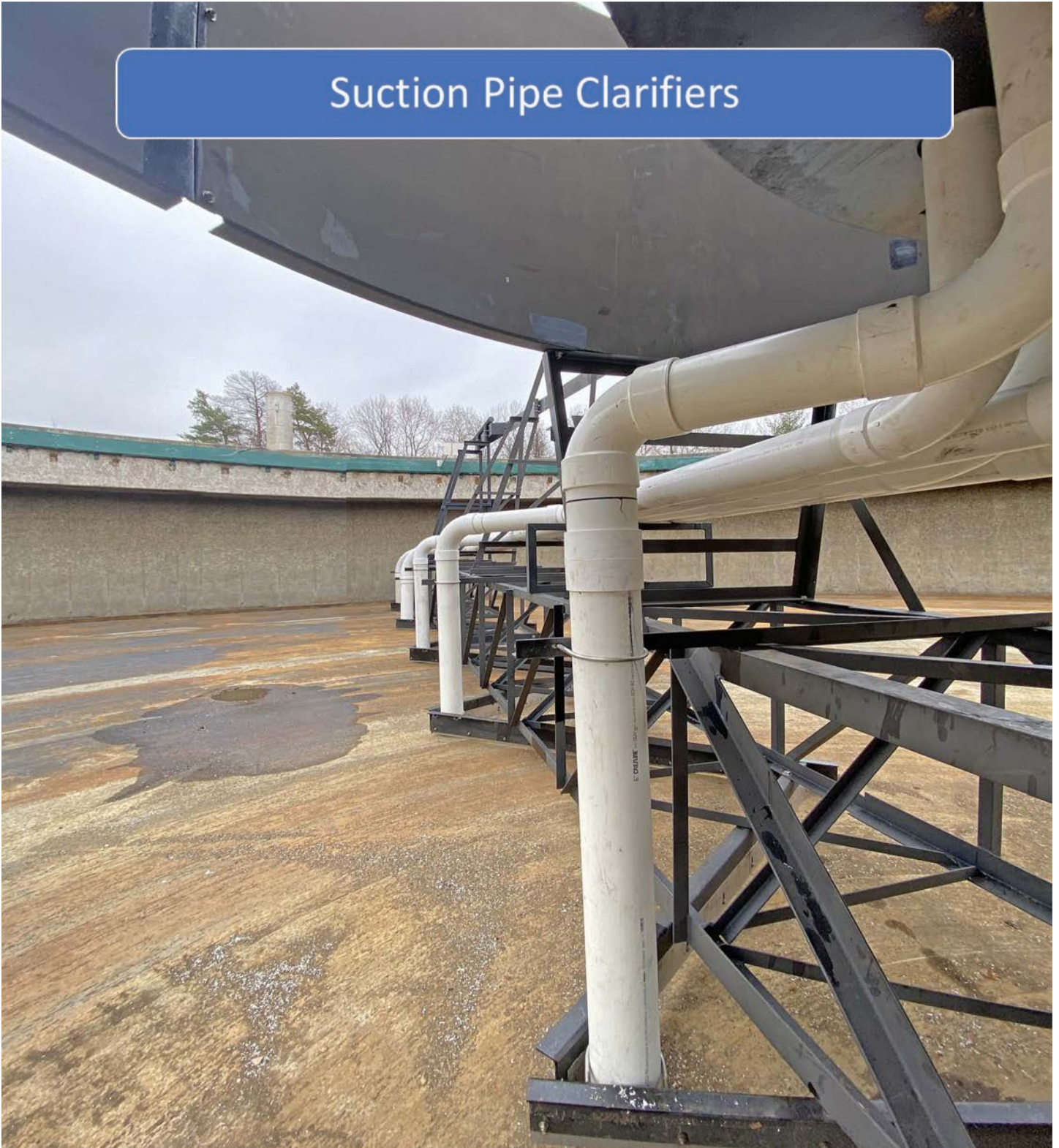


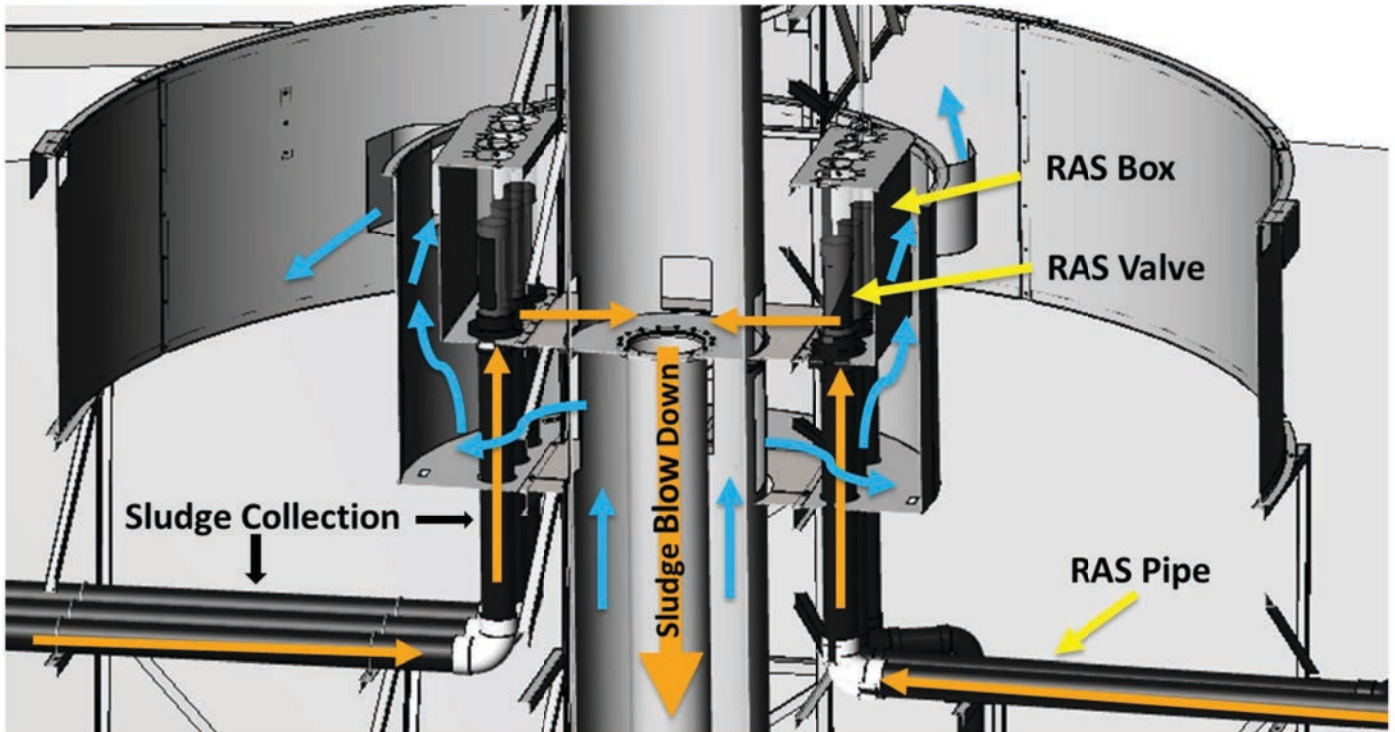


Quality Equipment: Competitive Price

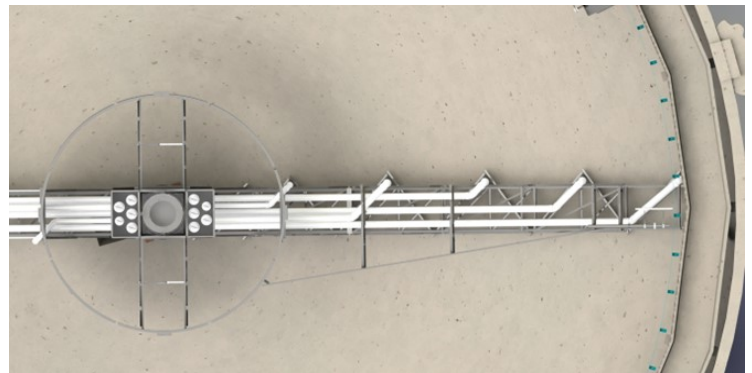
Suction Pipe Clarifiers



Suction Pipe Design



Suction or Riser Pipe design works by lowering the water level in the RAS box, creating a head differential between the RAS box and the water level in the tank. This causes settled solids to be drawn from the tank floor into the RAS box. An adjustable valve in the RAS box allows the volume of settled solids to be optimized from the different locations of the clarifier bottom.



"V" Pattern Blades



Suction Pipe Clarifiers

Suction or draw-off pipes are equally spaced along the rake arm to draw off settled sludge across the clarifier.

Blades on the rake arm are arranged in a "V" pattern to direct the collected sludge towards the Suction Pipe.

A RAS valve, located in the RAS Box on each individual suction pipe, allows the flow from each pipe to be adjusted to optimize the solids removal from the clarifier, leading to potentially higher RAS concentrations.

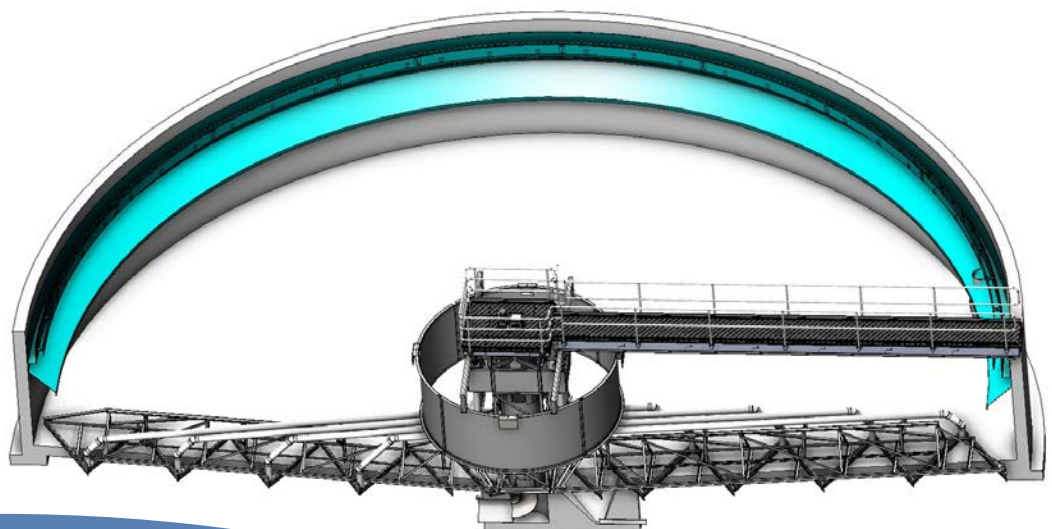


ADVANTAGES:

1. Rapid removal of settled solids across the entire basin floor
2. Optimization of the flow removal across the clarifier bottom as process conditions change

DISADVANTAGES:

1. Potential plugging of the suction pipes and, in particular, the valves.
2. A seal must be maintained between the rotating RAS box and the clarifier center column
3. Generally, the highest capital cost of all clarifier designs
4. The required RAS valve box makes adding an Influent Dispersion Well (IDW) or an Energy Dissipation Well (EDI) difficult
5. Many times the Suction Header Clarifier is not utilized to its full potential due to the higher sophistication of operation





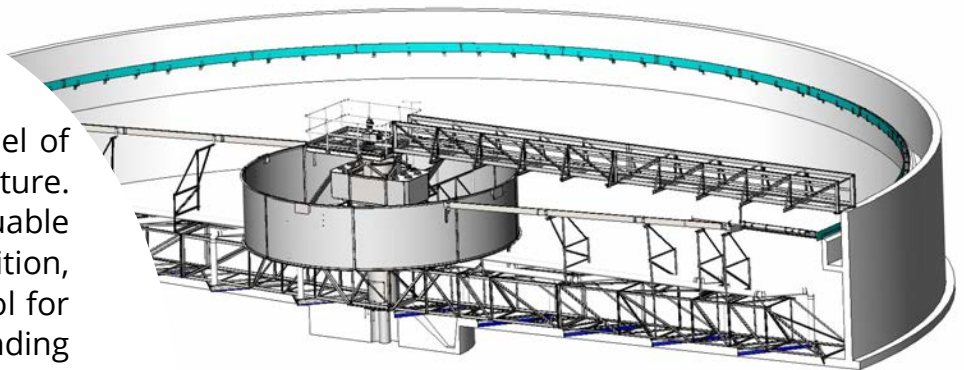
Suction Pipe Clarifiers

Pictured below is a RAS valve box with each individual valve, marked with a percent opening, to allow custom withdrawal rates for each suction pipe. This controls the flow from each pipe to be adjusted to optimize the solids removal from the clarifier, leading to potentially higher RAS concentrations. This also provides the operator visual indication of the setting of each individual RAS valve.



3D Models of Every Project

ClearStream produces a 3D model of every unit which we manufacture. These models are extremely valuable to ensure proper fit up. In addition, these models can be a useful tool for operator training and understanding of the unit design and operation. ClearStream provides these 3D models as well as the means for clients to view and manipulate these models at their own site or offices. This affords operations and maintenance personnel with a unique opportunity to “preview” the unit prior to any planned maintenance without having to drain the tank.



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