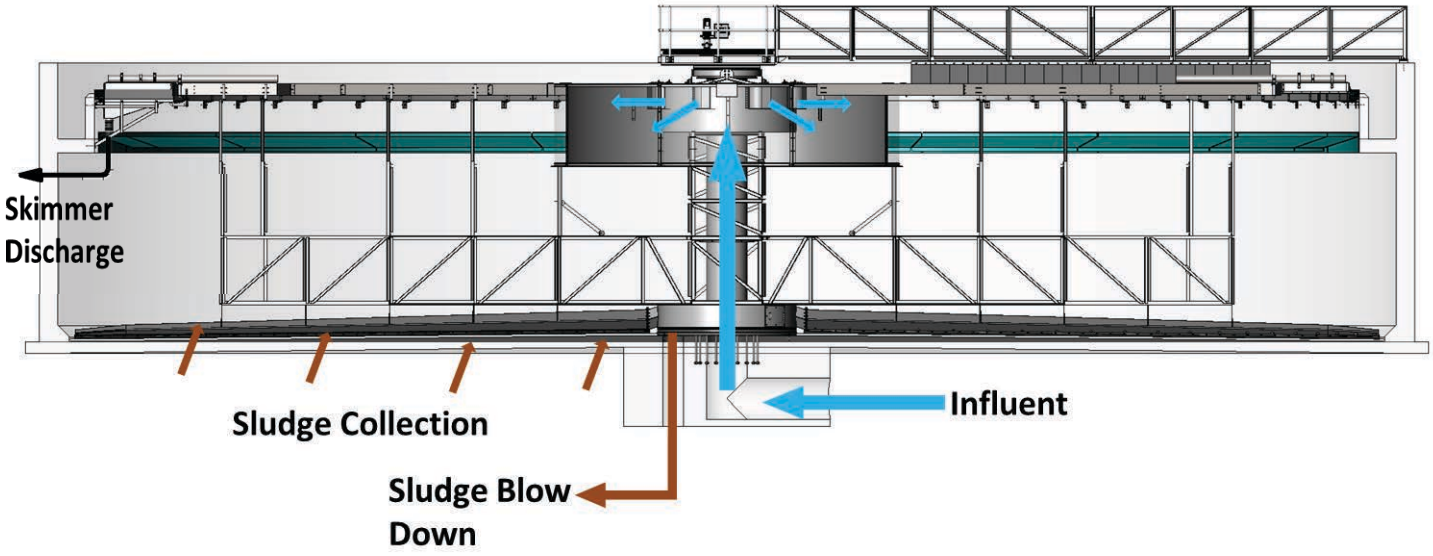
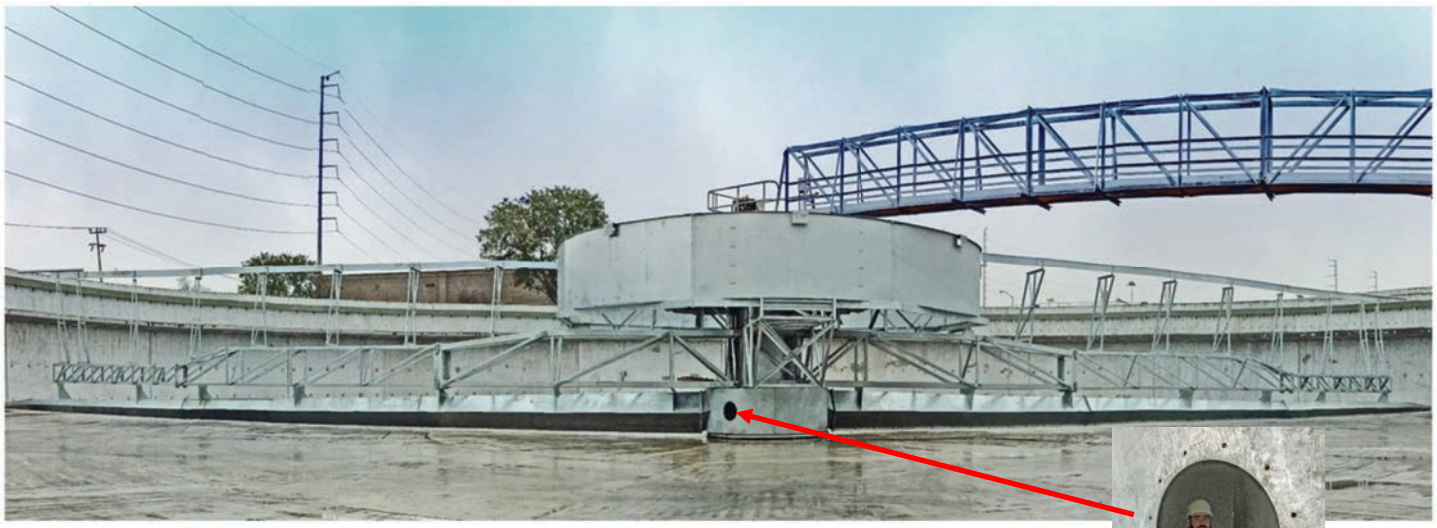
Quality Equipment: Competitive Price

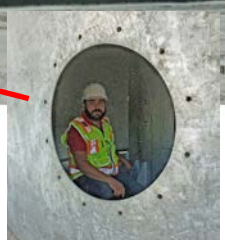
Suction Header Design

One or two rectangular tapered headers stretch radially from a manifold across the bottom of the clarifier. Engineered sized and spaced orifices, located in the leading edge of the suction header, are designed to draw settled sludge at an balanced removal rate across the entire basin floor. Through pumping and / or head differential, settled solids are drawn through the header into the manifold and out of the clarifier.





220 Ft Dia. Suction Header

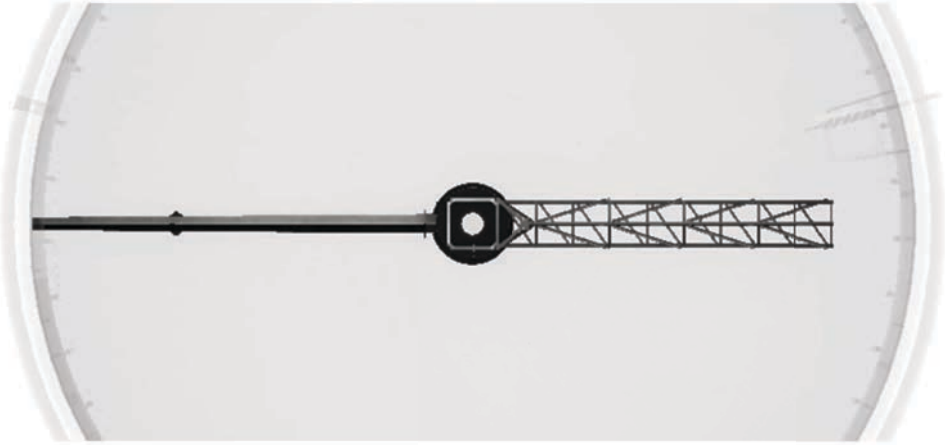


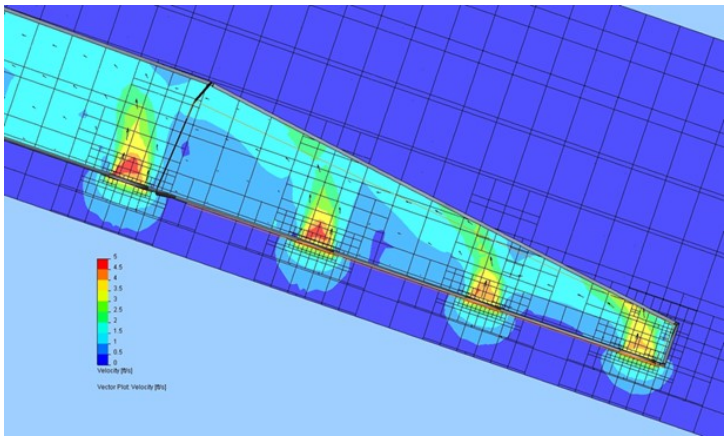
Inside the Suction Header

Suction Header Design

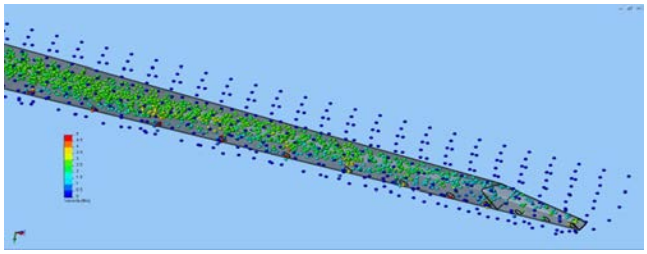
Header design starts with dividing the tank into annular rings, then sizing the suction header orifices to withdraw the design volume of sludge within that ring.

Orifice size and spacing are designed to achieve a balanced withdrawal rate across the clarifier bottom.





Header dimension and orifice size / spacing are designed using an iterative process with ClearStream's Verified CFD software to achieve flow balance without exceeding the minimum / maximum flow velocity throughout the header.



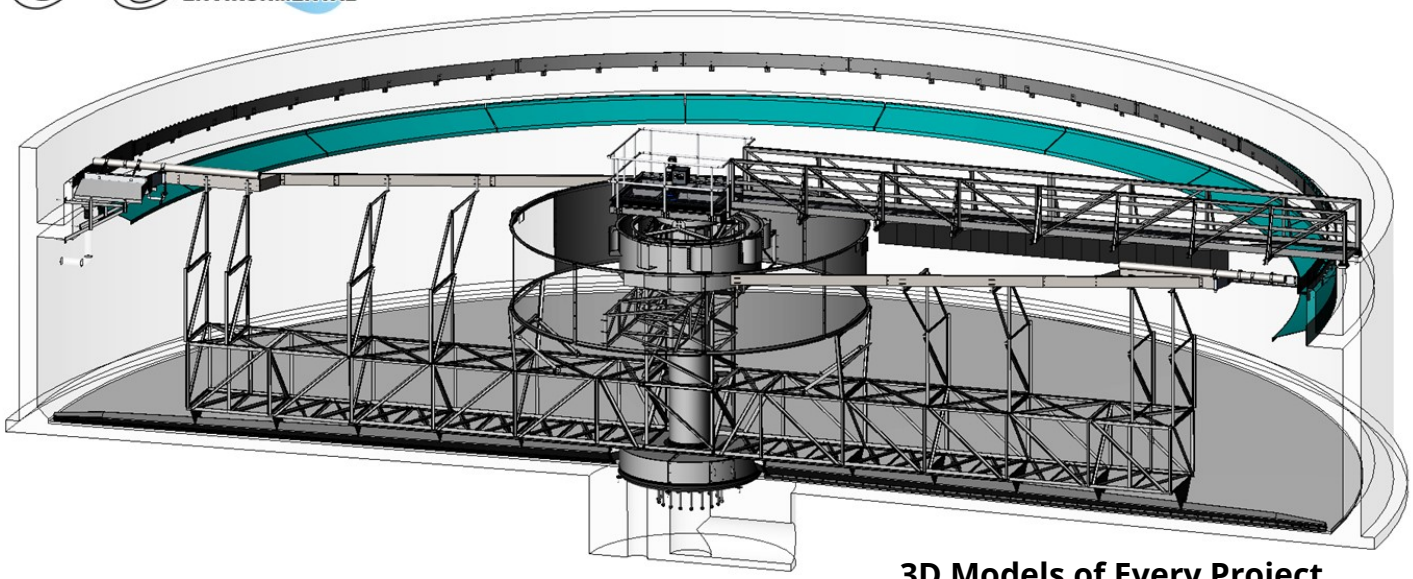
ADVANTAGE:

Rapid removal of solids across the entire clarifier floor.

VARIATIONS:

1. Option to install a segmented rake as one arm opposite the suction header to aid in redistribution of the sludge on the bottom.
2. Scrape to external sludge pit

Suction Header Clarifiers



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 operators 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.

20+ YEARS ClearStream

Water & Wastewater Treatment Solutions
Municipal, Industrial, Power & Mining

9090 South 300 West
Sandy, UT 84070
Phone (801) 676-1890
Fax (801) 676-1893
www.clearstreameng.com