

Case Study



HEIGHAM WATER TREATMENT WORKS

Our client



GE Power & Water

Project | Lamella Clarifier

Location | Norwich, England

( suez)

World leading energy provider GE Power and Water (SUEZ) awarded Colloide the contract to supply a Lamella Settler System for Heigham Water Treatment Works in Norwich.

Colloide's scope of works included:

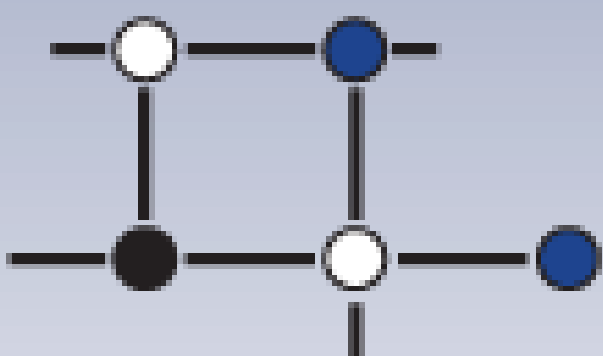
The scope of works included a 3-stream system, an integrated platform with access to stairs, flocculation tank and splitter tank. This 3-stream system was installed to handle a peak flow of 9,800m³/day. Colloide included a flow splitter chamber to split the flows evenly to 4 streams (1 future stream) and pipework from between this tank and the clarifiers.

Covers were installed on the flocculation and clarifier tanks which also act as walkways over the complete area.

Colloide have included a system to drain surface water off the tanks which is then returned to the treatment process.

This project included a full set of stainless steel lamella settlers which are certified to DWI standards. These are mounted within stainless steel tanks with flocculation tanks upstream of these settlers. Sludge is collected under the lamella settlers and concentrated up to 3% DrySolids.

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TECHNICAL INFORMATION

The main components of each tank are as follows:



3no. flocculation tanks

Each flocculation tank has a working volume of 17m³ giving a retention time of ~7.5 minutes at the max loading of 136m³/hr per clarifier. Each flocculation tank includes:

- Cylindrical tank (carbon steel) with inlet and outlet connections
- Base frame
- Main drive motor (low speed) suitable for outdoor location. Drive unit has 0.75W motor
- Drip tray
- Stainless steel flocculator
- Pipework from low level to top of tank including in line mixer

3no. lamella settler tanks

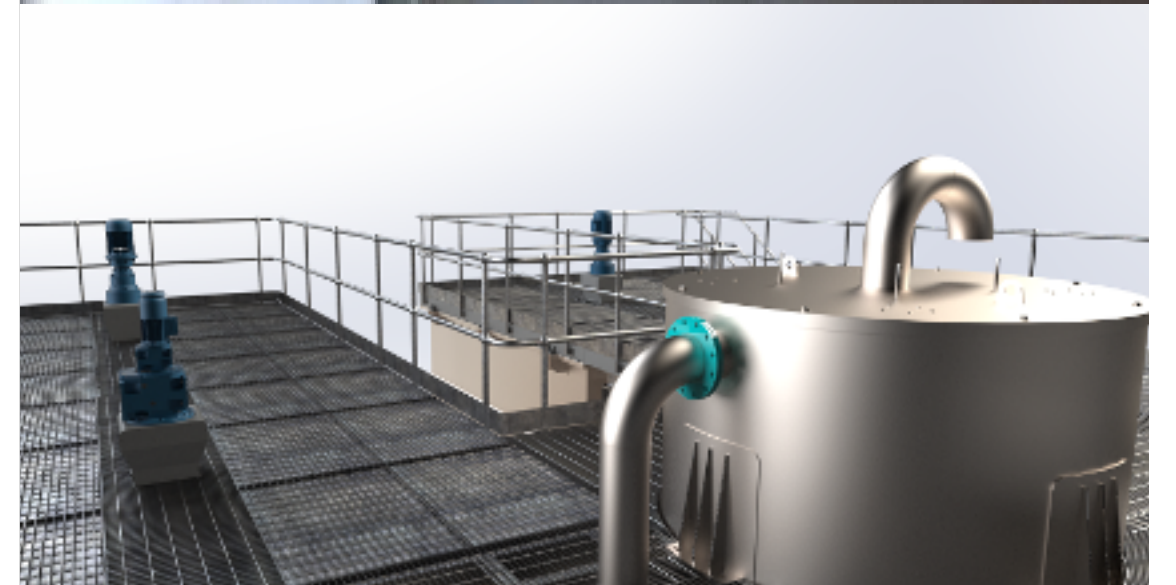
Each lamella settler tank includes:

- Settler tank (carbon steel) with inlet and outlet connections, sludge collection hoppers and outlets.
- Stainless steel lamella settler plates (DWI Certified)
- Collection launders
- Outlet and inlet pipework (304 SS)
- Sludge collection & thickening tank
- Sludge thickener with drive suitable for outdoor location. Drive unit has 1.5W motor
- Desludge system

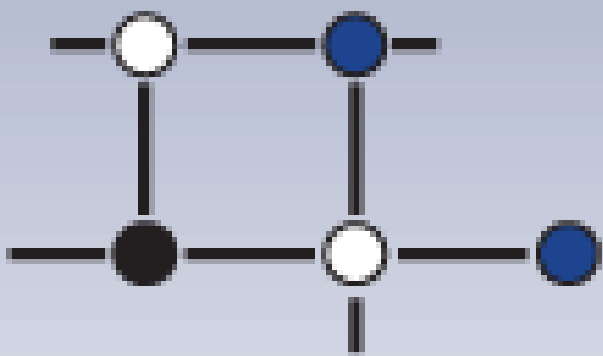
1no. flow splitting tank

1 no. stainless steel flow splitting chamber which allows equal flow to each clarifier tank. The tank is provided with:

- Cylindrical tank (Stainless steel) with inlet and outlet connections
- Base frame
- 4no. V notch weirs which are adjustable, spilling to separate chambers (one blanked off)
- Additional connections:
 - DN 250 PN 10 overflow
 - DN 50 PN 10 LIT connection
 - DN 50 PN 10 LSH connection
 - DN 50 PN 10 drain
- Supports for 4no. level probes/switches
- Walkway and handrail on one side of chamber
- Stainless steel cover



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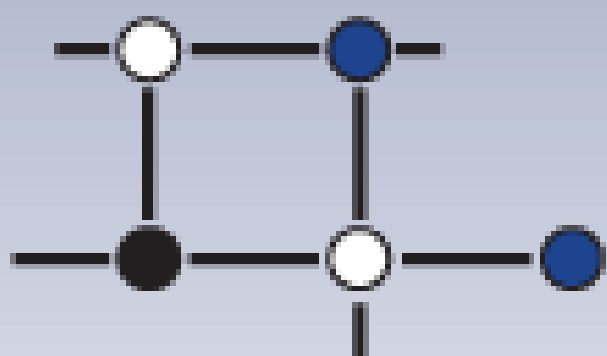
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Find out more about our Lamella Systems

This project was completed in May 2018 on time and to the original agreed value. Colloide's Lamella Settler tanks can be designed in a wide range of sizes and configurations to suit the individual needs of each of our clients.

Full details on our Lamella Systems can be viewed on our website.

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