Accurate and Reliable Non-Contacting Open Channel Flow Measurement for Sewage Treatment Works in Hong Kong.

The Sai Kung Sewage Treatment Works in Hong Kong is a secondary sewage treatment works that supply sewage treatment services to a population of 20,000 in the Sai Jung District. The plant includes two primary sedimentation tanks, two aeration tanks, two final settlement tanks, an ultra-violet disinfection system, and sludge treatment facilities.

Engineers at the treatment works were having issues with low flow velocity of 0.05-0.1 m/s in their UV channel. Accurately knowing the amount of water that is flowing is crucial in this stage of the treatment process, as it helps control the UV intensity on the effluent flow over the exit flumes.

The end-user approached CHI Instrumentation, a Pulsar Measurement Partner in Hong Kong for help. After reviewing the application, engineers at CHI instrumentation decided that a non-contacting flow solution would be best. A non-contacting open channel flow solution does not come into contact with the measurement medium, therefore cannot contaminate already treated water, and does not require maintenance due to wear and tear. Additionally, there were no shut down costs or complications, as the sensors are installed above the measurement medium.

dBMACH3, MicroFlow, & FlowCERT

CHI Instrumentation suggested Pulsar Measurement's dBMACH3, MicroFlow, and FlowCERT system. This system is completely contact free and offers a full area-velocity solution. The dBMACH3 measures the level of the channel, and the MicroFlow measures the surface velocity of the flowing liquid. Both readings return to the FlowCERT controller, which performs a calculation to supply a localized reading of flow.

To get the right results, CHI Instrumentation conducted a trial at the treatment works, to make sure that everything was working as it should be. Because of the success of the trial, the end-user bought a system and had it installed.

CHI Instrumentation worked to fine-tune the MicroFlow velocity sensor, using Pulsar Measurement's PC Suite software and were able to get the end-user the much more accurate flow reading of 0.07 m/s in their UV Channel.

First Class Support

To get the desired result, engineers at CHI Instrumentation worked to fine-tune the MicroFlow velocity sensor, using Pulsar Measurement's PC Suite software and were able to get the end-user the much more accurate flow reading of 0.07 m/s in their UV Channel. CHI Instrumentation left the customer extremely happy with the results, who are now considering adding more open channel flow solutions around the site.

Pulsar Measurement offers a range of flow and level measurement solutions for a variety of applications. Find your ideal solution using our product configurator or by speaking with our team of experts.

To find your local Pulsar Measurement partner visit our partner locator: https://pulsarmeasurement.com/partnerlocator

More Information

MicroFlow: https://pulsarmeasurement.com/MicroFlow

dBMACH3: https://pulsarmeasurement.com/dbmach3-db3-with-sun-shield

FlowCERT: https://pulsarmeasurement.com/flowcert

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