



## Successful Open Channel Flow Measurement for Jurong's Water Reclamation Plant.

The Jurong Water Reclamation Plant collects sewage and wastewater from houses, factories, and commercial and industrial premises. Sewage enters the inlet chamber of the works and flows through automatically controlled mechanical bar screens to remove rags and fibrous materials. Waste from the screening process is then sent to the press before being disposed of. Then, the sewage detractor removes any grit and heavy solids. After the grit chamber, the wastewater flows into primary sedimentation tanks where the primary sludge that settles in the bottom of the tank is thickened before being pumped through to the digesters. The wastewater then flows into aeration tanks, where mechanical surface aerators provide oxygen for the activated sludge process. The mixed liquor from the

aeration tanks then flows into the final sedimentation tanks to settle down the solids, and the final effluent is discharged through a concrete pipeline into the sea.

### **Issues with Electromagnetic Flow Meters.**

Engineers at the water reclamation center contacted engineers at Maestro Asia, for help with their mag flow meters. The existing ultrasonic flow meter was not matching the readings from their existing mag flow meter at one of their inlet pipes. Engineers wanted a more specific flow meter that gave more accurate readings and required little to no maintenance. Experts at Maestro Asia decided that a non-contacting open channel flow measurement system would be best and suggested Pulsar Measurement's dBMACH3 with MicroFlow and FlowCERT controller for a complete area-velocity solution.

### **Non-contacting Area-Velocity Measurement.**

Pulsar Measurement offers a few different solutions for area-velocity measurement, the dBMACH3, MicroFlow and FlowCERT is a non-contacting solution. The MicroFlow & dBMACH3 sensors are mounted above the moving liquid,



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never encountering the measurement medium, therefore, require little to no maintenance. The open channel level is calculated by the dBMACH3, while the surface velocity of the flowing liquid is measured by the MicroFlow. Both readings return to the FlowCERT controller, which performs a calculation to show real-time flow.

Maestro Asia are Pulsar Measurement partners and experts located in Singapore, after receiving first-class support and training from the Pulsar Measurement UK team, they have learned new and improved ways to fine-tune the system to get the desired results.

The end-user was satisfied with the results of the trial and is now looking at installing other Pulsar Measurement solutions at various locations across the Reclamation Plant.

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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