



Application note

Panametrics technology improves flow measurement reliability and accuracy for the semiconductor industry

Benefits:

- Easy to set up and program
- No process interruption
- Strong reputation and local support
- Reliability and accuracy
- Various communication options available



Summary

To help optimize, track and measure its raw water usage, a South Korean chip manufacturer turned to Panametrics for solutions.

Panametrics' customer faced challenges with the accuracy and reliability of their traditional flow measurement using electromagnetic competing meter manufacturers. This was leading to difficulties in reporting their water usage and disparities with the national water supply company on the volumes of water used at the semiconductor site. They needed to find reliable and accurate alternatives which led to the opportunity for Panametrics to evaluate the application for clamp on installation.

Application

Medium:	Raw water
Pipe size and material:	DN600 (24") Carbon Steel
Flow rate:	0 – 1500 m ³ /h (0 – 6604 GPM)
Temperature:	2–25°C (35–77°F)
Requested accuracy:	<±1 % of reading

Challenges

The customer required precision measurements, but could not entertain any process disruption as the plant works 24/7. Panametrics provided the KOLAS (National Weights & Measures) calibration and verification documents to meet the customer's required accuracy and performance ahead of commissioning.

Panametrics' highly skilled engineers provided a field demonstration at the measurement point using a PT878 since wifi and bluetooth usage was prohibited at this site. Clamp-on ultrasonic flow meter accurate and reliable flow measurements were recorded matching the customer's expectations. This convinced the customer that Panametrics' technology was the right option.



Solutions

For a permanent installation, the customer opted for Panametrics' AT600 Flow Meter technology with CRS 402 transducers, RS-485 Modbus communication to the National Water Company and an analog output to the customer's SCADA system. Since installation, the flow meter has delivered accurate and reliable flow readings which has addressed the issues, both for the customer and the national water company.



Pleased with the outcome and recognizing further opportunities to optimize operations using Panametrics' flow technology, the customer has since ordered a further 30 AT600 flow meters at the site in South Korea.



Panametrics, a Baker Hughes business, provides solutions in the toughest applications and environments for moisture, oxygen, liquid and gas flow measurement.

Experts in flare management, Panametrics technology also reduces flare emissions and optimizes performance.

With a reach that extends across the globe, Panametrics' critical measurement solutions and flare emissions management are enabling customers to drive efficiency and achieve carbon reduction targets across critical industries including: Oil & Gas; Energy; Healthcare; Water and Wastewater; Chemical Processing; Food & Beverage and many others.

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