

Services & Support

Calibration flume

The Calibration flume is a facility to validate and calibrate liquid velocity meters (such as Deltares' PEMS) at high accuracy. Calibration of instruments in general is needed because electronic components which are used in the instruments are naturally drifting over time. With regular calibration measurement performance will be improved.

Liquid velocity meters are calibrated by mounting the meters on a trolley. The trolley will move through stagnant water at an accurate speed. Speed is measured through contact-less speed measurements at multiple points in the track. A test run can be done multiple times under exact same conditions to assure repeatability. An instrument can be validated at multiple speeds between 0.1 m/s and 5 m/s.

Acquisition of the velocity and speed signals is done through a calibrated Data Acquisition system. Signals can be acquired at high speed (up to 10 kS/s) so an average can be applied to the measurement to exclude noise. Besides the calibration results, detailed calibration data can be made available.

Technical specifications

- Length flume: 35 m
- Max measurement length: 20 – 25 m
- Width: 0.8 m
- Depth: 1 m
- Max measurement speed: 5 m/s
- Speed accuracy: 0.25 cm/s +/- 0.25%
- Data acquisition rate: up to 10 kS/s

Technical support

Upon request full technical support and advice can be provided in the fields of:

- Systems evaluation
- Applicability of selected instruments
- Performance checks
- Fault diagnostics and repairs
- Microprocessors and software
- Sensor technology
- Data acquisition and analysis



More information:
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