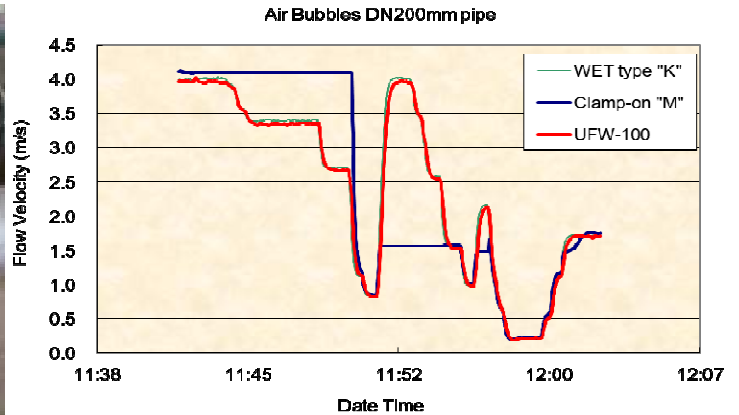
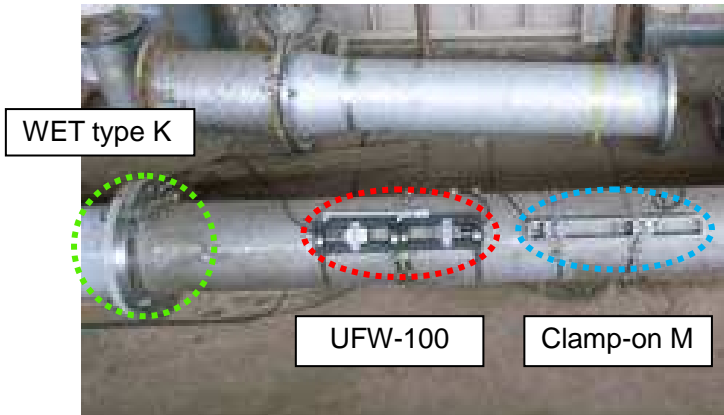


Ultrasonic Flowmeter Application Report 40

- Air-contained Flow measurement -



The “Intelligent-digital UFW-100” stationary, clamp-on ultrasonic flowmeter with transducers placed on the outside of pipes provides stable instantaneous flow rate measurements.

At this particular site, UFW-100 shows technical advantage of digitalized principle against air-contained flow measurement. This field test has been done with 3 models of ultrasonic flowmeter, which are WET type spool-piece flowmeter “K”, conventional clamp-on type flowmeter “M” and our “UFW-100”. Transducer of Wet type has inserted the face into inside pipe. Hence it can have stronger sensitivity than clamp-on type. The inside condition as below photo from reference window at the pipe. Those white lines are trajectory of the bubbles.



After confirmation of measuring status is stable in high volume flow, air-bubbles are added from upstream side.

Suddenly clamp-on “M” has stopped measurement due to disturbed by air-bubbles until flow volume going down to 1.6m/sec. Wet type “K” and intelligent-digital “UFW-100” can trace its flow volume change accordingly.

Even the same “Clamp-on” type ultrasonic flowmeter, there is differences between them especially against tough condition.

In addition, by employing the UFW-100 stationary clamp-on ultrasonic flowmeter in combination with the easy set-up function on above software is easy to configure through such as “Wizard-parameter input”, “Auto-Logging function”, “Analog input” and / or “Integrated mounting fixture”. Through such easy setup function, you may be able to obtain high accuracy flow measurements of pipes from 25mm up to 600mm in nominal diameter with $\pm 30\text{m/s}$ velocity range coverage.

The all-in-one UFW-100 main unit boasts 1 Analog output, 1 Contact output for totalizing or warning, 1 Digital communication port RS-232C as standard, another port for RS-485 (Option) and Analog input (Option).

[Pipe Specification]

Pipe DN : 200mm
 Pipe material : Carbon Steel
 Lining : Epoxy

[Installation Data]

Main Unit : Stationary Ultrasonic Flowmeter UFW-100
 Transducer : SE104720T
 Installation : V method / 1 path

For more detailed information, please contact your local representative.

Representative in your Area