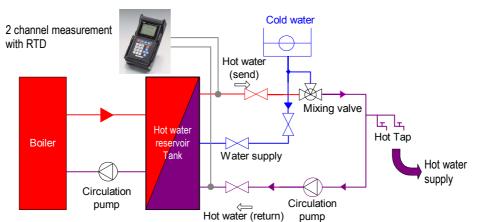


## **Ultrasonic Flowmeter Application Report 24**

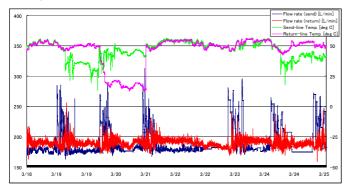


- Hot water supply system improvement -

The UFP-20 portable, clamp-on ultrasonic flowmeter provides instantaneous flow rate measurements with 1 pair of transducers placed on the outside of pipes.

At this particular site, the UFP-20 portable flowmeter with 2 pair of sensors measured the flow rate through 80mm diameter of 2 pipes, non-intrusively, from the outside with no interference of flow.

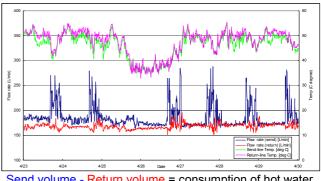
In this application, the client needed to know how much hot water with how hot water is used in the building properly. Especially in case of using UFP-20, main unit integrates independent temperature transducers both at the send line and return line. The client could confirm how much old heat source had deteriorated compare to brand-new-models. This information enabled the client to consider sufficient for the task but which minimized his energy consumption at great savings.



Besides grasp of the energy efficiency, through this site survey, client realizes unbalance of supply (send) and return volume of water, also temperature as above.

## Return volume (red line) > Send volume (blue line)

This means over-supply of water in the line, wasting hot water. After client improves the system, they will have proper supply-demand balance as next trend of water circulation.



Send volume - Return volume = consumption of hot water

UFP-20 flowmeter used in combination with a variety of sensors can successfully measure pipes with nominal diameters from 13mm - 5000mm. The UFP-20 main unit's inner memory can log instantaneous flow rates and totalized data, which can then be transferred to PC through USB memory under CSV format and modified for statistical analysis as this trend graph.

[ Pipe Specification ]

Pipe DN	:	80mm (O.D.: 89.1mm, t : 4.2mm)
Pipe material	:	Carbon Steel
Lining	:	Ероху
[ Installation Da Main Unit Transducer Installation	: -	Portable Ultrasonic Flowmeter UFP-20 Medium sensor (2channel) V method

For more detailed information, please contact your local representative.

Representative in your Area