



MEASUREMENT TASK

Fluid processes are an integral part of the operation of a power station or CHP plant. Whether the media is fuel oil, demineralised water, or sea water – these flows are essential to keeping the system in operation in an efficient and safe way. The problem in power generation facilities is that whilst flowmeters are often fitted into the pipelines during commissioning of a new plant, with age the meters can become inaccurate or stop functioning. In order to replace an in-line flowmeter, it would be necessary to shut down and drain the pipe in which the flowmeter was to be installed. This would be expensive, both in lost operation and manpower, difficult, time consuming and in the case of a nuclear facility, potentially impossible.

SOLUTION

It is for this reason that clamp-on ultrasonic flowmeters are the perfect solution for power generation applications. They can be retrofitted to any flow system with no requirement to drain the pipeline during installation. An example of this functionality is a project completed by one of Katronic's partners who are responsible for the BeNeLux markets. U-F-M (Ultrasonic Flow Management) were required to install flowmeters at Amercentrale, Europe's largest biomass power station. The application demanded measurement on large corroded steel pipe where the flow conditions would have made installation of an invasive instrument both impractical and expensive.

In spite of the size of the pipe and the water being measured contained particulate, the customer was very happy with the accurate, reliable and repeatable results obtained by U-F-M using the Katronic flowmeters.

ADVANTAGES

- Easy, quick and cost-effective installation on existing pipelines
- Available as a multi-channel meter for measurement of several pipelines simultaneously
- Integration into existing or future control systems possible
- Applicable on pipes of various materials including duplex stainless steel
- Capable of measuring non-conductive liquids such as demineralised water and fuels
- Suitable for retrospective installation on radioactive water lines

SPECIFICATIONS

Installation type	Portable
Media	Water
Pipe materials	Steel with heavy corrosion
Pipe diameters	900 mm
Temperature	Heat transfer
Special requirements	Uncertainty of 1 % needed

APPLICATION



The KATflow meters are used in power generating facilities, such as nuclear, wave, hydroelectric and CHP.

INSTRUMENT SOLUTION



The KATflow 200 was used to great effect to measure on a difficult application at the Amercentrale plant.