

Contactless flow measurement for the Power Generation Industry. Katronic's ultrasonic clamp-on flowmeters ensure that power is generated in a more efficient way reducing costs and carbon emissions.

Specifications

- **Installation:** Permanent
Fuel Oil, Demineralised Water, Sea Water
- **Medium:** All common metals, plastics and more
- **Pipe Materials:** 10 to 3,000 mm
- **Pipe Diameters:** 0.01 to 25 m/s
- **Flow Velocities:** Up to $\pm 0.5\%$ for volume flow and flow velocity
- **Accuracy:**

Application



Power plants have various requirements for clamp-on flowmeters – e.g. they are used to monitor fuel oil and cooling waters.

Instrument Solution



The fixed installed ultrasonic clamp-on flowmeter KATflow 150 is the ideal solution for the Power Generation Industry.

Measurement Task

Liquid flows are an essential part of the operation of a power station or CHP plant. Whether the liquid is fuel oil, dematerialised water, or sea water – the flows of these liquids are essential to keep 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, the meters can become inaccurate or stop functioning. In order to fit a new inline flowmeter, it would be necessary to shutdown 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.

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. Additionally, their high accuracy and reliability enable the instruments to be embedded into monitoring and regulation systems.

Furthermore, Katronic's flowmeters can be operated independently of pressure, temperature or radioactivity. A clamp-on ultrasonic meter will even work on non-conductive liquids such as demineralised water where some alternative flowmeters would not be suitable.

Katronic have been supplying leading companies of the industry for many years. Our flowmeters have been installed on cooling liquid lines in nuclear reactors of British Energy replacing variable area meters, and on pipes for heavy fuel oil in a power plant of RWE npower (formerly Innogy Plc). Other satisfied customers are Siemens Power Generation and E-On.

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 (incl. duplex stainless steel) and diameters from 10 mm to 3,000 mm
- Capable of measuring non-conductive liquids such as demineralised water and fuels
- Suitable for subsequent installations on radioactive water lines

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