



MEASUREMENT TASK

Within the oil and gas industry there are various applications which require to measure the flow of liquids such as oil, hydrocarbons or produced water. Oil platform operators for example have to ensure that they are adhering to the directives of oil discharge guidelines. There is a legal requirement for the accurate measurement of the amount of oil sent to sea within the produced water which is a standard feature in oil extraction. This is achieved through the monitoring of total water production and based on the measured oil in water concentration calculating total discharged oil.

Other applications within the oil sector where clamp-on flowmeter might be of use include water and methanol injection skids and tanker unloading systems.

SOLUTION

There are several examples of how the Katronic flowmeters have proven useful in this sector. Katronic successfully completed the installation and commissioning of two stainless steel KATflow 170s for ESSAR Oil for measuring the flow of varying grades of crude oil on their tanker unloading lines.

The clamp-on flowmeters were chosen as they provided the operator with a reliable and accurate way of monitoring these flows without needing additional investment in pipe modifications. The stainless steel design of the Katronic instruments is ideally suited to the saline environment in which they are installed and are measuring continuously in spite of the differing types of oil within the pipeline.

ADVANTAGES

- Easy, quick and cost-effective installation on existing pipelines
- ATEX certified flowmeters for use in Zone 1 hazardous areas
- Applicable on pipes of various materials including duplex stainless steel
- Various power supply options (AC, DC, battery, solar powered)
- Easy integration into existing control systems
- Maintenance free, very low MTBR (mean time between repairs)

SPECIFICATIONS

Installation type	Fixed
Media	Crude oil, sea water
Pipe materials	Steel
Pipe diameters	1,096 mm
Temperature	+20 °C
Pressure range	ATEX Zone 1

APPLICATION



The installed KATflow 170 with stainless steel enclosure at ESSAR Oil

INSTRUMENT SOLUTION



Stainless steel KATflow 170 was especially designed for harsh environmental conditions