

OPTIFLUX provides solid solution for concrete manufacturers

Pre-mix concrete producers across the UK are installing KROHNE's OPTIFLUX electromagnetic flowmeters as part of upgrade programmes to reduce water utility costs and environmental impact.

Norstrom Group Ltd, a specialist provider of plant and control systems to pre-mix concrete and mortar suppliers, designs and installs systems for concrete producers that use recycled water, rather than fresh water, for manufacturing concrete.

The company has standardised on using KROHNE's OPTIFLUX within its systems because of the instrument's ability to operate reliably in harsh conditions and measure accurately abrasive, semi-slurried recycled water.

Over 100 leading concrete producers across the UK have now installed these systems, which enable them to reduce water utility costs substantially through using recycled water.

Previously mechanical turbine meters were used by concrete manufacturers to measure the flow of fresh water. However, because the recycled water is abrasive and contains slurry they are not suitable for this application and frequently block and fail in operation. This results in increased downtime and maintenance.

The OPTIFLUX's are being used in batch manufacturing processes which operate 24 hours per day. They measure accurately the amount of recycled water that is added to cement mixing vessels, which flows at rates of between 10 and 20 cubic meters per hour. A signal output from the instrument is fed into a computer system which controls valves on the water feed pipe.

"The OPTIFLUX flowmeters are ideally suited to this application," said Steven Mines of Norstrom. "They operate reliably in the extremely harsh and demanding conditions of a concrete manufacturing plant and provide accurate measurement of the recycled water – which is a particularly abrasive and inconsistent substance."

KROHNE's OPTIFLUX is a pioneering electromagnetic flowmeter which sets new industry standards of metrological performance and accuracy. It has been designed to operate reliably in demanding applications. The instrument can achieve an industry-leading accuracy of 0.15 per cent and reproducibility of 0.06 per cent, even when measuring materials with high solid content or that have turbulent flow.

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KROHNE's OPTIFLUX