

## KROHNE'S OPTIMASS flowmeters help to produce high quality bread products



KROHNE's OPTIMASS 1000 Coriolis mass flowmeters are helping to ensure the consistent quality of bagels produced at two manufacturing sites owned by a leading UK baker.

The flowmeters have been chosen as part of a proportional weighing system built by Croston Engineering Ltd. The instruments accurately measure the amount of palm and rape seed oil added to the recipe and maintains the proportional ratio between flour and all liquid ingredients. This ensures that the products meet consistently high quality standards.

Very small quantities of these oils are added to the flour mixture during production. If too much or too little is added it will adversely affect the texture of the product.

Traditionally, nutating disk type displacement flowmeters are used to measure the flow of oil used in the production of bread products. However, this method did not provide the level of accuracy the baking company needed to achieve to maintain product quality.

The palm and rape seed oil is contained in bulk storage vessels and pumped at between 2 and 3 bar via stainless steel pipes through the OPTIMASS and into a mixing vessel. A reading is taken from the flowmeters and fed to a plc which controls valves that regulate the flow of oil.

The OPTIMASS flowmeters improve the measurement accuracy of the oil to  $\pm 0.1$  per cent of actual measured flow rate. The instrument was also chosen because of its twin straight-tube design, which is non-invasive and has minimum pressure loss.

“Our customer wanted us to develop a system that would improve the consistency of manufacture of its products,” said Jim Rainford, engineering director at Croston Engineering. “By installing KROHNE’s OPTIMASS flowmeters we were able to significantly improve the measurement accuracy of adding oils over traditional methods.”

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