

Complete solution: Energy balancing for Krombacher with KROHNE measuring technology

- Determining consumption data for internal balancing
- Flow metering hot water, steam and compressed air
- Complete measuring solutions from one source

Duisburg, 14 September 2009:

The Krombacher Brewery was looking for a suitable measuring technology solution for its auxiliary and supply processes for internal energy balancing. This is an important tool used in determining the leading consumers throughout the entire brewing process. By positioning the measuring points, usage and thus costs can be allocated to individual portions or segments.

There was a total of 26 measuring points to be equipped. At each point, either warm or hot water, steam or compressed air was to be measured. In the past, these media were supplied without exact knowledge as to where and in what quantity they would be required. That makes it easy to reduce costs by monitoring the compressed air network and adapting compressor output to actual consumption rates.



Hot water measurement in the boiler house at Krombacher

With the newly installed KROHNE measuring equipment, the Krombacher Brewery can optimally monitor and control its auxiliary and supply processes. Usage profiles can be created for individual components, enabling the quantity of the particular medium supplied to be controlled according to need.

The contract was awarded to KROHNE as their measuring devices revealed the smallest measuring inaccuracies in a company internal comparison. In addition, all of the measuring equipment came from the one source. For hot water measurement, KROHNE provided UFM 3030 ultrasonic flowmeters with paired calibrated temperature sensors which are connected directly to the signal converter of the measuring device using the 2-wire cable. This allows the UFM 3030 to directly output the heat quantity on-site without any additional heat quantity calculator or the related wiring costs.

The OPTISWIRL 4070 vortex flowmeter was selected for steam and compressed air measurements. It features integrated pressure and temperature measurement as well as a correction calculator. This excludes the possibility of distorted measuring results when the

density of the medium changes as a result of pressure or temperature fluctuations and the wiring for additional sensors is no longer necessary. Comparatively small diameters DN 50 were sufficient for compressed air measurements whereas OPTISWIRL 4070 devices in the nominal size DN 300 were installed for the steam lines.

About **Krombacher**: With production of around 6.4 million hectolitres in 2008, the Krombacher Group from Kreuztal-Krombach is one of the largest private breweries in Germany. In the same year, Krombacher Pils was the best-selling brand of Pils in Germany with sales of around 4.6 million hectolitres.

About KROHNE: Established in 1921, KROHNE is a family-owned business employing 2,510 people around the world with representatives on all continents. The company has its headquarters in Duisburg, Germany and develops, manufactures and sells products in the field of measuring technology, standing for innovation and superior product quality. KROHNE is one of the market leaders in industrial process measuring technology.

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