

# METROLOGY

## FAILURE IS NOT AN OPTION FOR THE FIRE PROTECTION INDUSTRY

Ultra-reliable is the only standard acceptable when it comes to building, testing and maintaining water pumps for fire fighting. To ensure all of its pumps are fully able to provide maximum performance instantly, under all circumstances, Ruhrpumpen has built a dedicated fire pump centre in Lancing, West Sussex and fitted its test-rig with the best torque sensors it could find on the market.

Ruhrpumpen is a global leader in high technology pump systems and is a major player in industries such as oil and gas, water distribution, chemical production, continuous processes, and nuclear power. Identifying fire fighting as a crucial sector, it set up Ruhrpumpen Industrial Europa Ltd (RPIE) a Factory Mutual (FM) and Underwriters Laboratories (UL) certified manufacturing facility for fire water pumps in the UK. The FM and UL Approvals Bodies audit the facility quarterly, inspect calibration certification and carry out flow, pressure, power, NPSH (net positive suction head) and other relevant tests as required, ensuring that the facility maintains world-class standards at all times.

Ruhrpumpen Industrial Europa Ltd's state-of-the-art fire pump manufacturing centre is fully equipped to design, assemble, test and package fire pumps for European market requirements. It can also produce standard and highly-engineered pumping systems for a wide range of other applications industries, often using the technical requirements of firefighting to set benchmarks in other industries.

In addition to pumps and systems for use in the UK and Europe, the facility also provides parts and support for highly-engineered pump equipment to other Ruhrpumpen companies around the world, and offers product and system testing, training and specialist consultancy services.

With the test-rig TorqSense transducers measure and record instantaneous torque levels in rotating pump drive shafts, with analysis of the data confirming real-time performance standards, in testing operations.

TorqSense is made by Sensor Technology Ltd in Banbury and comes in a range of sizes for measuring torque, both rotary and static, from 10mNm up to 13,000Nm. Different ranges are based on different technologies, including full four element strain gauge bridges and optical measurement. None of these require hard wiring with slip rings, instead being designed for use with wireless radio frequency pick-ups which make set up and adjustment fast and simple.

Working with clients, experts from Sensor Technology can recommend the best transducer for each application.

As is a requirement in all fire pump testing, the torque transducers are all regularly calibrated by an independent ISO 17025 accredited calibration laboratory.

Sensor Technology also produce a full range of data display, recording and analysis interfaces. Again, it is the work of moments to integrate these with the sensor heads. However, with fire water pumps being such a specialised and highly regulated field, Ruhrpumpen decided to use bespoke data systems developed to directly address the needs of the industry. With these, data is recorded and analysed in Ruhrpumpen's own performance test app before the final pump Test Report is made available. Naturally everything is tested and verified by qualified independent bodies on a regular basis.

David Gentle, Ruhrpumpen Industrial Europa Product Line Manager for EU Fire Systems, says: "We are a very high tech industry, but there is also a lot of human intelligence and input into our operations. We really value the support from the team at Sensor Technology and know we will always get a quick



response from them, no matter when we call. TorqSense transducers are lightweight, easy to use and we have recommended their adoption by our group subsidiaries around the world, all of whom are FM/UL certified.

**Sensor Technology Ltd Tel: 01869 238400**

## TORQSENSE®

### Rotary Torque Transducers

- 10mNm up to 13,000Nm
- Analog & Digital Outputs
- ±0.1% Accuracy
- Non-contact digital strain gauge torque measurement



**SENSOR TECHNOLOGY**

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