**NEWS ARTICLE**

The role of oil quality sensors in successful lubrication management

In an era where operational efficiency and machine health are critical, oil quality sensors are indispensable tools for successful lubrication management. By harnessing these cutting-edge technologies, businesses can proactively detect potential issues and take prompt action to avoid costly machinery failures and downtime.

“Investing in integrated monitoring solutions empowers businesses to optimise lubrication management, reduce operational costs, and ensure continuous production, gaining a competitive advantage in today’s dynamic industrial landscape, comments **Craig FitzGerald** from ISO-Reliability Partners.

Among the most critical factors affecting machinery efficiency and longevity is the condition of the lubricating oil. Yateks®, a leader in oil condition sensors and oil analysis instruments, is dedicated to providing comprehensive solutions for online and portable oil condition monitoring. With advanced technology and expertise, Yateks® has earned industry recognition for delivering high-quality, reliable products.

Portable oil analysis equipment is a game-changer for maintaining the health and performance of mechanical equipment by providing immediate essential information. By measuring parameters such as viscosity, density, and contamination levels, these devices offer valuable insights into the condition of both the lubricant and the equipment.

Our solutions enable proactive maintenance, preventing costly downtime and unexpected failures. Yateks® offers a range of user-friendly, accurate, and reliable portable oil analysis devices, making them indispensable for maintenance and reliability professionals.

For laboratory oil analysis, accuracy and reliability are crucial as they directly impact the quality of results and the effectiveness of maintenance programs. Yateks® provides laboratory equipment that meets the highest standards of accuracy and performance, ensuring consistent, repeatable results for trustworthy data and informed decision-making.

Integrating advanced oil quality sensors eliminates the need for costly samples and reduces human error, leading to more accurate data. Yateks® cutting-edge technologies empower businesses to take proactive measures with real-time online oil condition monitoring. Immediate identification and rectification of issues such as wear rates, temperature increases, contamination, and viscosity changes are possible, unlike traditional time-based oil analysis programs.

ISO-Reliability Partners, known for innovative ISO fluid cleanliness solutions, has partnered with Yateks® to bring cost-effective, high-quality oil analysis solutions to the African market. This partnership offers a comprehensive range of real-time oil quality sensors that provide unmatched protection for industrial plants and equipment. Traditionally, oil analysis is conducted monthly as a snapshot in time, but with real-time sensors, information is available 24/7.

Yateks® recently introduced the 6-in-1 oil quality sensor, which uses advanced piezoelectric resonant MEMS components. This sensor automatically detects moisture, density, viscosity, dielectric constant, water activity, and temperature.

It also calculates additional parameters such as density at 20°C, kinematic viscosity, and viscosity index. The precision probes ensure accurate measurement and real-time reporting, with fast response rates and a data refresh frequency of every second. The durable 316 stainless steel casing and probes offer excellent chemical and pressure resistance.

The YTS-61 sensor, with CE and ATEX certification, is the ultimate solution for transformer protection. Traditional transformer oil sampling is challenging, costly, and infrequent, but the 6-in-1 sensor provides continuous real-time analysis, greatly improving transformer safety and reliability.

Yateks® also offers a cloud-based condition monitoring platform, enabling users to monitor their equipment directly from a mobile phone. This Industrial IoT system provides real-time monitoring results, converting key information about equipment and oil into actionable maintenance recommendations.

Yateks® YFM8 oil debris sensors have passed rigorous SGS environmental and regulatory tests, earning the SGS Premium Performance Certificate. This certification verifies sensor accuracy, life expectancy, and functionality. SGS, an internationally recognized testing, inspection, and certification body, ensures the highest standards for Yateks® products, which are widely used in various industries and exported to 80 countries across the Americas, Europe, Australia, Asia, and now Africa.

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**About ISO-Reliability Partners**

ISO-Reliability Partners has consolidated knowledge and expertise and provides industry with substantial and quantifiable improvements to plant and asset protection. We combine expertise in the fields of filtration, lubrication, and tribology, offering an advanced and comprehensive service to our customers.

The well-being of the environment is of key concern but is often overshadowed by business needs. Through the more efficient use and handling of commodities such as fuel and lubricants, we reduce pollution through lower usage and disposal of lubricants, conserve electricity usage while achieving higher production output and provide greater asset protection and an overall lowest cost of ownership.

ISO-Reliability Partners is a Level 2 accredited B-BBEE contributor that owns the iconic Filter Focus brand and provides lubrication products and services with a foundation in tribology and hydrocarbon ISO cleanliness. Unlock the hidden and lost value in your business operations with world-class technology provided by ISO-Reliability Partners, your partner in improved efficiencies.

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