CV Prof. Dr.-Ing. Manfred R. Mauntz

Position: CEO and Head of Development and Research
Company: cmc Instruments GmbH
Country: Germany

Prof. Dr.-Ing. Manfred Mauntz received his diploma in Engineering from the University of Kaiserslautern in 1982, earned a doctorate with honors in Engineering from the University of Siegen and is a Professor at the Szent Istvan University (Faculty of Mechanical Engineering) in Hungary.

He has worked extensively on the development and implementation of an oil sensor system for the continuous, online measurement of oil quality using the quality dependent parameters, electrical conductivity and permittivity. The sensor system permits the evaluation of the 'total machine system' by the basic approach of measuring the changes and degradation in the oil system. Warnings of critical operating conditions, such as excessive wear or lubricant acidification and also accurate indication of the need for preventive maintenance are realized. The rolling of bearings on the raceway can cause localized friction stress, resulting in the formation of sharp edged, brittle, hairline cracks. Often these are caused by only briefly prevailing conditions, e.g. high wind gusts in wind turbines. This crack formation is the first stage in the failure mechanism commonly associated with early failure of the machine. Practical measurements and calculations employing the laws of Maxwell-Garnet, Lichtenecker and Piekara support this hypothesis. Promising applications include industrial drives, wind turbines, marine gearboxes, turbines and engines, hydraulic systems and transformers. Benefits include increased uptime, reduced maintenance and an improvement in both economic and environmental efficiency. More effective utilization of machines, targeted prevention, increased serviceable life and reduced downtime are thereby realized.

He has worked a long time extensively in the analytical and process instrumentation industry. At AEG AG, Germany he was Head of the Department protection and control. At Hartmann & Braun AG he was responsible for the analysis of the market potential in the U.S. and Canada, to develop and implement appropriate sales strategies, editing services, negotiating and completing contracts on site. As the general manager Europe at Whatman Ltd. Prof. Mauntz was in charge of set-up of market-oriented sales, marketing, and service units, developing and introducing of new product groups in the European market in the complex field of gas generators.

He is the founder, CEO and Head of Development and Research of cmc Instruments GmbH[*)]. Over several decades the continuous research and development on new products and optimization resulted in products at the peak of technology for all kind of different industrial sectors. As the head of R&D at cmc Instruments GmbH, Prof. Mauntz realized specialized analysers for ppm H_2O measurement in corrosive gases and medical gases. This specialized technology is designed to give reliable, accurate measurements in tough field service over many years. The implementation of easy-to-perform refurbishment tasks was one of the goals

in the past, so this can be carried out by even non-skilled operators in the field for this high-tech device.

Several government funded projects have been achieved in the last 10 years, also in the demanding field of the online monitoring and continuous oil regeneration of high voltage transformers: the innovative online oil sensor system, OilQSens® enables continuous condition monitoring and power grid protection of high voltage transformers by sensor monitoring of oil aging.

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*)cmc Instruments GmbH, founded in 1993 in Eschborn is a successful manufacturer of gas generators, trace moisture analysers, filters and the product lines OilQSens® and WearSens®, the unique oil condition monitoring systems. LC-MS laboratories and GC laboratories are the typical customers for the gas generators. Chemical, petrochemical, pharmaceutical, automotive and air separation industries are served by the cmc Instruments process analyzers. cmc is an expert in providing highly accurate and reliable gas generating and stable gas analysis technology, instilling confidence in those involved in gas technology worldwide.