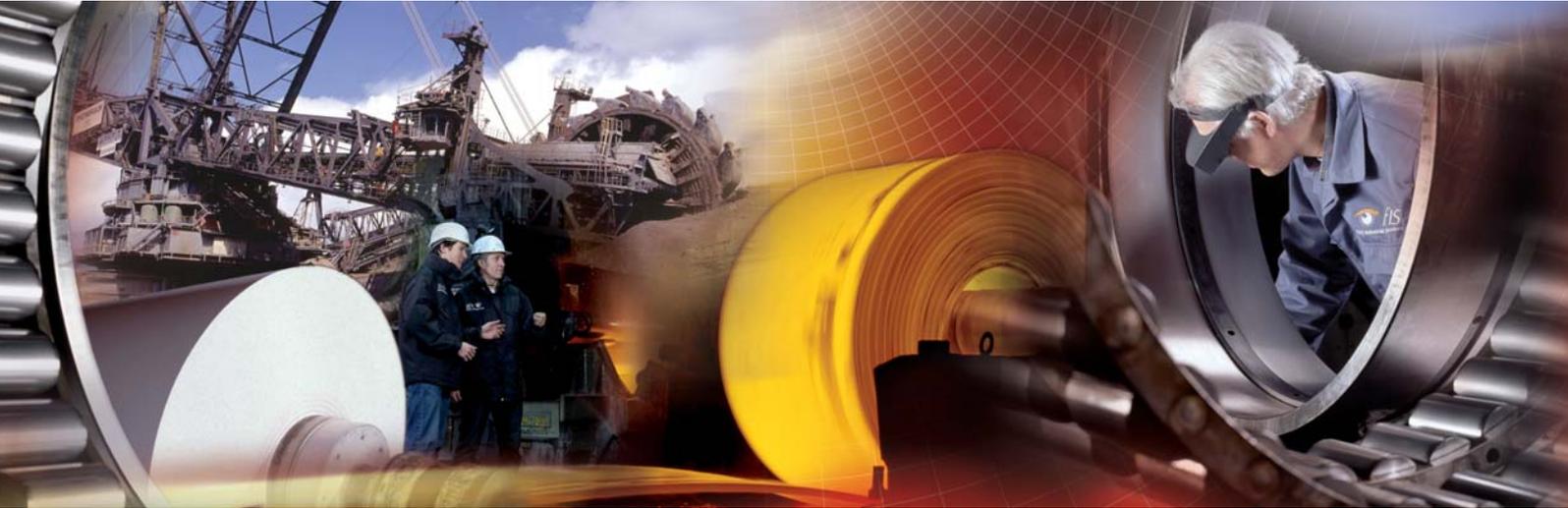


# Smart Performance Program



## FAG Detector III Ensures Smooth Operation of Wastewater Plant

**Industry: Wastewater Treatment**

**Customer: Erftverband, Bergheim (Germany)**

Erftverband is a water management services provider. Its overall area of operations comprises 4,216 km<sup>2</sup> with about 2.7 million residents. With a workforce of 500, Erftverband reconciles the different water-related interests in the region. The organisation's Wastewater Operations department is responsible for ensuring the trouble free operation of the wastewater treatment facilities. The company operates several pump stations and wastewater treatment plants where various types of equipment are installed.

### Challenge for Schaeffler

The customer was looking for a reliable device for monitoring its process critical systems. With the help of this device, especially the condition of the blowers and centrifuges was to be checked regularly. The goal was to obtain information that would enable Erftverband to schedule necessary maintenance measures or repair work on these vital systems in good time to avoid failures.




### Technical Information about the Plant

Pumping stations and wastewater treatment plants where various types of equipment are installed, for example

- Rotary blowers
- Centrifuges/decanter
- Centrifugal pumps
- Submersible pumps

## Schaeffler Solution

FAG Industrial Services (F'IS) recommended the customer to use FAG Detector III. With this handy offline measuring device, users can obtain valuable information about a machine's condition quickly and easily. At the plant, the F'IS experts demonstrated to the customer's maintenance personnel the easy handling of the device. Afterwards, the equipment to be monitored was viewed and the optimal measuring points were defined. In addition a number of individual measurement configurations with specific alarm thresholds were configured by experienced F'IS vibration experts. These helps to make the measurement procedure as easy as possible for the customer's personnel and to obtain optimal results. Before starting a measurement, the configurations have only to be loaded onto the measuring device using the copy and paste function. To enable the Ertverband personnel to analyse the measured data without assistance, F'IS conducted a three-day in-house training course.

## Customer Benefit

The regular inspections increase the availability of the blowers and centrifuges significantly. If the device detects any signs of damage, it triggers an alarm immediately, enabling the customer to schedule the necessary repair work and realize significant cost savings. If the measurement results continue to be positive, it may even be possible to use the documentation as an argument in talks with equipment manufacturers for extending the inspection intervals. The current inspection intervals of the blowers are every three years. The cost depend on the equipment size varying between 3,000 and 7,000 euro for one blower.

## What's special

Apart from condition-based maintenance of blowers and centrifuges, the customer also uses the FAG Detector III on other systems to check the effectiveness of revision work by carrying out before/after measurements.

### Technical Information about the Solution

FAG Detector III functions used

- Monitoring functions:
  - ISO 10816
  - Frequency selective monitoring of the rolling bearings' condition
- Measuring routes
- Collection of reliable trend data
- In-depth diagnosis based on time signals and frequency spectra
- Automatic measuring point identification by means of RFID technology
- Free PC software



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