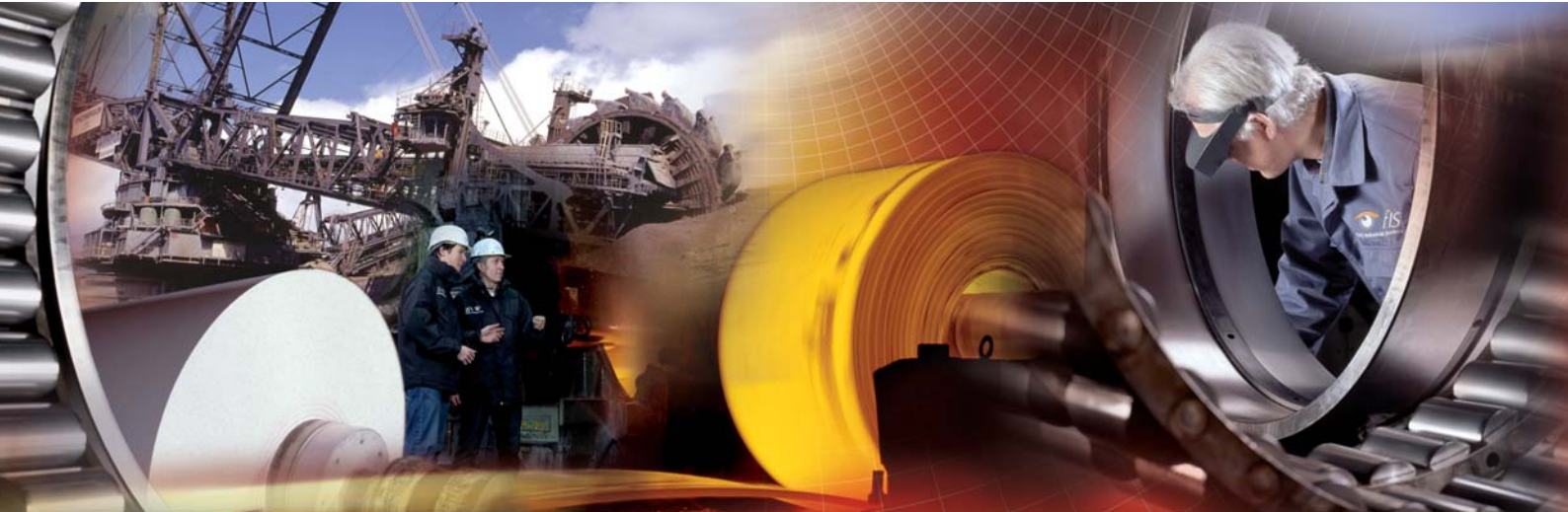


Smart Performance Program



Switch to Condition-Based Maintenance with FAG Detector III

Industry: Chemical industry

Customer: ContiTech Elastomer Coatings, Northeim (Germany)

The ContiTech Group is an independent division of Continental AG and comprises seven business units.

ContiTech Elastomer Coatings is a developer and manufacturer of innovative technical materials and diaphragms as well as an original equipment manufacturer of compressible CONTI-AIR® printing blankets.

Challenge for Schaeffler

In order to minimise its maintenance cost and increase its level of machine availability, ContiTech Elastomer Coatings decided to switch from time-based maintenance to condition-based maintenance. The customer prefers offline vibration diagnosis. In a direct comparison with other providers, FAG Industrial Services (FIS), the service company of the Schaeffler Group Industrial, prevailed. Apart from being the most cost-efficient solution, the FIS product was appreciated for its easy handling.



ContiTech
Elastomer Coatings



Technical information about the Monitored System

Mixer drive:	700 KW
Rolling stand driving motors:	160-200 KW
Extraction fans:	75 KW
Belt grinding machines	

Schaeffler Solution

FIS presented the offline vibration measuring device FAG Detector III to the customer. First, two ContiTech employees were trained in Herzogenrath (Germany). The training included both a basic knowledge of vibration theory and the correct use of the measuring device. In a briefing at the customer's, the machines to be monitored were viewed jointly with a diagnosis expert. Afterwards, configurations for different measuring points were generated on a PC, different measuring routes were defined, and ContiTech employees performed some first measurements and analyses.

Customer Benefit

The early detection of damage with the help of FAG Detector III permits an efficient scheduling of maintenance activities and increases the availability of the customer's machines. Moreover, replacement parts can be procured much sooner and consequently at lower prices.

Potential cost of unscheduled shutdowns:

Shutdown of the 700 KW non-redundant mixer drive: **approx. 2 days, five-digit euro amount**

Duration of the repair of the rolling mill unit:

- scheduled shutdown **approx. 2 days**
- unscheduled shutdown **approx. 10 days**

Shutdown of a belt grinding machine: **approx. 2 days, € 50,000/day = € 100,000**

By comparison, project cost of an upgrade from FAG Detector II to FAG Detector III with RFID technology, training as well as on-site service and e-service:

€ 6,489

Cost and time savings merely through prevention of a failure of the belt grinding machine:

€ 93,511

What's special

The solution is transferable to all customers where the condition of process-critical machines needs to be monitored and who wish to develop a sound diagnosis know-how at their own service department.

Contact details for worldwide contact persons as well as further

Smart Performance Solutions can be found on our homepage

www.smartperformanceprogram.com

Technical Information about the Solution

FAG Detector III functions used by the customer:

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

