

## Schaeffler Global Technology Solutions

### Industry

#### Schaeffler Technologies AG & Co. KG, Germany

#### Networked Maintenance at Schaeffler

Schaeffler is a leading automotive and industrial supplier worldwide. The company stands for the highest quality, outstanding technology and distinctive innovative ability. With precision components and systems in motors, gearboxes and chassis as well as rolling and plain bearing solutions for a wide range of industrial applications, Schaeffler makes a decisive contribution to “mobility for tomorrow”.

#### Challenge for Schaeffler

The production of high quality rolling bearings requires very high precision manufacturing and a seamless production process. The machinery facilities of Schaeffler comprise more than 20 000 production machines worldwide. These are subject to regular maintenance by in-house service personnel. In order to ensure the best possible availability, an important role is played by main and auxiliary equipment items.

#### Schaeffler Solution

For comprehensive monitoring Schaeffler relies on condition-oriented maintenance solutions developed in-house. To this end, the Herzogenaurach plant uses the FAG SmartCheck – a compact system for effective monitoring of both main and auxiliary equipment items. Directly installed on pumps, motors, fans and gearboxes, this detects early vibrations that could indicate the beginning of a bearing damage. This information is correlated with further data such as temperature and oil pressure and is transferred in a visualized form to the control center. As a result, the maintenance employees based there have a consistent overview of the entire equipment status.



## SCHAEFFLER

#### Technical Information about the Plant

#### Machinery monitored:

- Cooling lubricant plant
- Forming plant
- Heat treatment processes
- Stacking machines
- Equipment for final workpiece assembly



Monitoring of electric motor by FAG SmartCheck



Data visualization in the Schaeffler control center



Monitoring system FAG SmartCheck

## Customer Benefit

In Herzogenaurach, production and maintenance have been working together on this network basis for some time. The results are highly satisfactory.

*“In the past, we replaced parts on some machines on an anticipatory principle before the actual wear limit had been reached. This was only carried out on the basis of values obtained from experience. It was possible, however, that the part could have continued in use for a further period. Now, this is carried out in a significantly more precise way. This gives us a basis for greater production security and saves considerable expenditure in replacement parts procurement”*,

says Waldemar Weiß, Head of Maintenance in Herzogenaurach.

## What's special

At the Herzogenaurach plant, a large number of main and auxiliary equipment items along the length of the production process are monitored. Starting from the supply of cooling lubricants to cutting equipment, through forming and heat treatment processes and extending through to final assembly and dispatch, numerous monitoring solutions are applied.

The continuous use of condition-oriented maintenance at an ever-increasing number of Schaeffler sites is no surprise. It is only with the aid of a comprehensive concept of this type that complex production processes can be optimally controlled and unplanned maintenance or downtime can be prevented.

### Technical Information about the Solution

#### Monitoring system:

FAG SmartCheck (in steadily increasing numbers)

#### Equipment subjected to monitoring:

- Pumps
- Motors
- Fans
- Gearboxes

#### Operating parameters subjected to monitoring:

- Vibration
- Temperature
- Speed
- Load

#### Diagnostic methods:

- Velocity
- Acceleration
- Envelope curve

#### Status display:

Connection to the Schaeffler network and local visualization in the control center