



Customer Success Story

We pioneer motion

Monitoring of Compressors Saving Maintenance and Energy Costs

In order to avoid failures and unplanned downtimes during operation in the future, compressor manufacturer Boge was looking for a reliable and cost-effective monitoring solution based on vibration diagnosis. The customer decided on a vibration measuring device that allows the correlation of classical and vibration-based parameters and thus a holistic machine monitoring. **A plus:** The vibration measuring device can be easily retrofitted, no plant modification is required.

Benefits

- Easy installation
- Manageable acquisition costs of the modular system
- Reduced maintenance costs and predictable maintenance cycles
- Increased plant availability
- More operational safety

www.schaeffler.de/en/success-stories



Customer

Otto Boge GmbH & Co. KG,
Germany

Sector

Pneumatik engineering and
general ventilation systems

Application

Compressors

Solution

Condition Monitoring

SCHAEFFLER

What our customer drives ... What Schaeffler has to offer ...

Challenge

Compressors are needed to move and compress air or other particles. They are subjected to heavy stressing and substantial vibration in operation. These can cause failure of the compressors in no time at all and without any outwardly noticeable signs. To minimize this incalculable risk, and to improve the compressors' availability, Boge wished to find a reliable and cost efficient monitoring system that is based on vibration diagnosis.

Solution

Boge was one of the first customers in the field of compressors and compressed air systems to install the Schaeffler SmartCheck. The compact measuring system permits online monitoring of the compressor stage with the help of just a single sensor. It is the first of the vibration measuring devices in this price range to permit correlating classic and vibration based parameters and thus comprehensive monitoring of machines. The novel alarm system ensures that operators are informed about any machine damage reliably and

at an early stage. As the installation of the SmartCheck requires no mechanical conversion, existing systems can be easily retrofitted as well.

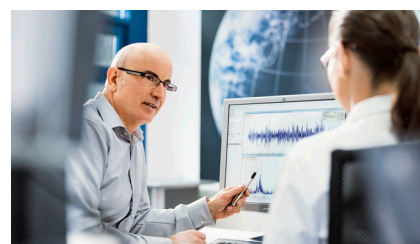
What's special

Compressors must work reliably. Permanent monitoring and analysis of all compressor parameters ensure not only perfect operation. They also provide the basis for long-term optimization of the machines' design and thus offer an enormous energy saving potential. Further applications that can be monitored with the SmartCheck include vacuum pumps or vibrating screens.

The Schaeffler SmartCheck has received the IEN Europe Award for highly innovative product. The award was presented by „Industrie-Magazin“. IEN Europe has been providing information about new products and solutions for the industry for more than 30 years.



Überwachung: Schraubenkompressor



Remote monitoring is also possible with Schaeffler SmartCheck



Schaeffler SmartCheck

Customer

Boge Kompressoren is one of the world's leading suppliers of compressors and compressed air systems. Boge not only stands for high product quality „Made in Germany“, but also offers complete solutions for efficient compressed air supply. The family business is one of the oldest manufacturers of compressors in Germany.

Technical Information about the Product Portfolio

Types

- Screw-type compressors
- Piston compressors
- Oil lubricated or oil-free compressors
- Complex systems or single units

Performance parameters

Motor range: 0,4 – 355 kW

Free air delivery: 0,1 – 51,4 m³/min

Compressed air: 4 – 40 bar

Technical Information about the Solution

Monitoring system

1 SmartCheck per compressor

Vibration sensor

High resolution piezo sensor

Operating parameters monitored

- Temperature at the compressor housing
- Motor/engine vibrations during operation

Further options

- History data (up to several years)
- Integration into a control unit or control station
- Remote monitoring