

Schaeffler Global Technology Solutions

Facility Management

Engie Cofely, Brussels, Belgium

Considerable savings through condition-based maintenance using Schaeffler solutions

Engie Cofely has approximately 3000 employees in Belgium and is one of the most important service providers in the facilities management sector. The Belgian company provides maintenance and repair services for buildings in both the private and public sector. Engie Cofely is part of the Engie Group, which has approximately 150 000 employees worldwide covering 70 countries.

Challenge for Schaeffler

The core business of the service provider is the monitoring and maintenance of heating, ventilation and climate control plant, also known as HVAC units, as well as pumps. These services are provided primarily to the customers of Engie Cofely on site. Guarantees have also been agreed for the availability of climate control systems. In order to achieve more efficient process, cost savings and avoid unplanned downtime, Engie decided to change from a temporary to a permanent maintenance strategy. As a first step, a pilot project was planned at the main headquarters location. The objective was to control and visualize the plant condition via a central control room at the headquarters. The background to this initiative was that employees have cover long distances, since the different building facilities are situated some way from each other.

Schaeffler Solution

With the assistance of Schaeffler, the company changed from a decentralized structure of temporary monitoring to a permanent Condition Monitoring concept with a central control facility. The technical basis of the Schaeffler solution comprises the implementation of 5 SmartQBs coupled with 27 SmartCheck sensors. The SmartQB is a preconfigured plug-and-play system that outputs plain text messages on a touch panel to indicate possible sources of errors such as bearing damage, unbalance or temperature in changes to condition of the assembly. Detailed recommendations for action can be read off. A PCI interface was also installed so that additional remote control analyses can be generated using mobile devices such as a cellphone or tablet.



Technical information on the pumps

Pump type:

Pumps with a Q from 10 to 50 m³/h at n = 800 to 1800 [rpm]

Technical information on the motors

Motor type:

Asynchronous e-motor with belt transmission

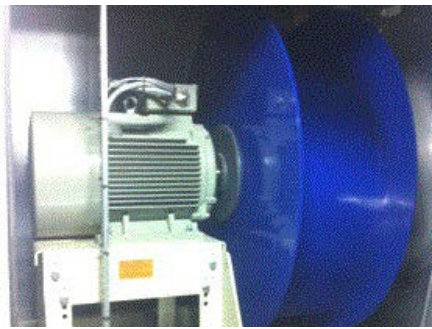
Technical information on the fans

Fan type

Fan x blades, Q from 10000 to 70000 m³/h dry air



Cooling condenser



Main fan with motor



SmartQB with sensor SmartCheck

Customer Benefit

There is no need for time-consuming preventive maintenance, which means that the personnel do not have to move long distances from one assembly to the next. There is even more: With this solution, Engie can not only view the current status of the assemblies but can also access archived data. Unplanned downtime of climate control and heating plant can also be prevented in a systematic manner. This has set the course for condition-based maintenance. Engie Cofely estimates that using the Schaeffler Condition Monitoring in its own building can achieve savings running into millions of Euros!

What's special

Following successful implementation of the pilot project in its own facilities, Engie Cofely has already applied the solution to varying degrees at five of its customers. It was helpful here that Engie Cofely could demonstrate the benefits live by means of its own pilot scheme. The conclusion: The customers of the service provider are also very pleased with the solution. The Schaeffler solution can be applied not only to further assemblies in buildings management but can also be transferred to other sectors.

Technical Information about the solution

Monitoring system used:

- 5 SmartQBs
- 27 SmartChecks (SmartQB sensors)
- 1 PCI and 1 Smart-Switch
- 1 Smart-Utility Software

Operating parameters subjected to monitoring:

- Vibrations
- Temperature
- Potential humidity and other direct I/O signals
- Overall condition of the plant

Accessories:

- 10, 20 m PoE cable (Power over Ethernet)