

ODiN in metallurgy

Customer: Lollar Guss



ODIN IN METALLURGY

Robert Bosch Lollar Guss GmbH

At Robert Bosch Lollar Guss GmbH, cast products for a wide range of industries have been manufactured on an area of 20,890 m² for over 150 years. Whether brake discs for cars, pumps, engines and transmissions, industry and mobile hydraulics, automotive or general mechanical engineering, Lollar Guss produces the suitable casting solution for each industry.

ODiN as solution for predictive maintenance

In the past, Lollar Guss has experienced some unplanned downtimes in the moulding plant caused by malfunctions in the central hydraulic system. The moulding machine is a central element in the casting process. Due to its enormous size, maintenance and localization of malfunctions are difficult. In addition, the time frames for seeking and fixing possible problems are very limited, as production is carried out in a three-shift operation. Therefore, Lollar Guss decided to monitor the pumps of the main hydraulic system of the moulding machine via Online Diagnostic Network. A total of 48 sensors were installed to collect data on pressure, temperature, flow rate, ambient temperature, motor currents and oil purity. Through the DAQ box, each week several gigabytes of data are sent to ODiN and then will be analyzed. Status reports are prepared quarterly. In case ODiN detects irregularities, our experts will inform Lollar Guss and make recommendations for actions.

AT A GLANCE

Customer: Robert Bosch Lollar Guss GmbH

Current status:

March 2020: Implementation of the DAQ-Box and completion of the ODiN learning phase

Decisive motivation to buy:

Unscheduled downtimes of components must be avoided in order to reduce downtimes at essentially important machines.

Contact person:

Andreas Rack

ROBERT BOSCH LOLLAR GUSS GMBH

Business activities:

Manufacturing of cast products

Industry:

Metallurgy

Foundation:

1854

Headquarters:

Lollar, Hessen

Employees:

272

Technical implementation: Used software and hardware

MONITORED COMPONENTS

Hydraulic Power Unit

Control pump

INTEGRATED PARAMETERS

- operating pressure
- leakage temperature
- leakage flow
- suction line temperature

Pumps 1-6

- flow rate
- temperature
- operating pressure
- motor current L1
- motor current L2
- motor current L3

Cooling unit

- cooling water pressure flow
- cooling water inlet
- cooling water flow outlet
- cooling water temperature outlet

Filter

- pressure cooling unit outlet
- pressure main filter

Oil contamination

- oil cleanliness classes 4 μ m
- oil cleanliness classes 6 μ m
- oil cleanliness classes 14 μ m
- oil cleanliness classes 21 μ m
- oil temperature
- water content oil

Ambient

- temperature

STATEMENT OF OUR CUSTOMER LOLLAR GUSS

The crucial reason why we ultimately chose ODIN from Bosch Rexroth is on the one hand that we were able to create an individual solution and, on the other hand, we have had good experiences in another Bosch production plant that is already using ODIN. We also have no complaints regarding the hardware quality of Bosch Rexroth. For sensors in particular, these are all suppliers that we consider good in the foundry industry, they have proven their worth and I do not see any better options.