rexroth
A Bosch Company

ODiN in Metallurgy

Customer: Rexroth Guss

ODIN IN METALLURGY

Bosch Rexroth Guss GmbH
The company history of Bosch Rexroth Guss GmbH began in 1795 in north-west Bavaria, Germany. Today Rexroth Guss is a company of Bosch Rexroth AG.

ODiN as a solution for predictive maintenance
Even though there have been few failures of the lifting cylinder of the HWS molding plant in the past due to sophisticated maintenance schedules, the aim is to minimize these maintenance operations as well as to prevent unplanned failures. The lifting table of the molding plant represents a central element for the casting process. Due to its difficult to access installation position, maintenance and localization of failures are more difficult.
For this reason, Bosch Rexroth Guss GmbH decided to monitor the lifting cylinder of the molding plant using the Predictive Analytics Service ODiN. A total of three additional sensors were installed to collect data on temperature and oil cleanliness. This is significantly supplemented by the position of the cylinder, the valve opening, pressure values and some other data from the cylinder's axis controller.
By using the Bosch Rexroth IoT Gateway solution Data Acquisition Box (DAQ-Box), several gigabytes of data are sent to ODiN weekly and are analyzed. Status reports are prepared on a quarterly basis. If ODiN detects irregularities, Bosch Rexroth Guss GmbH is informed by our experts, the anomalies are analyzed and recommendations for action are given.

AT A GLANCE

Customer:
Bosch Rexroth Guss GmbH

Current status:
ODiN (Online Diagnostic Network)
Online since November 2020

Motivation:
Shift work, tight period for maintenance, moulding plant is the core of production.
Unplanned downtimes of components must be avoided in order to reduce downtimes on essential machines.

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BOSCH REXROTH GUSS GmbH

Business activities:
Manufacturing of cast products and valve blocks

Industry: Metallurgy

Foundation:
1795 (Bosch Rexroth AG 2001)

Headquarters:
Lohr am Main, Germany

Employees: approx. 600

Technical implementation: Monitored components and parameter

MONITORED COMPONENTS		INTEGRATED PARAMETERS
Cylinder		
	Temperature	• Temperature chamber A • Temperature chamber B
	Axis controller data	• Pressure chamber A • Pressure chamber B • Position actual value cylinder • Position set value cylinder • Speed • Valve actual value • Valve set value • Power actual value • Temperature HMC
	Oil cleanliness	• Cleanliness class 4µm • Cleanliness class 6µm • Cleanliness class 14µm • Cleanliness class 21µm • Oil temperature • Water content oil