KORMETAL LIGHT ALLOY WHEELS

KIO (Klemsan Internet Objects) Platform Case Studies
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KIO (Klemsan Internet Objects) Platform accelerates KORMETAL’S path to digital transformation!

Kormetal has been manufacturing light alloy wheels by combining its knowledge gained over 40 years with qualified manpower and advanced technology. Kormetal, being the market leader in Turkish market, has been selling wheels to more than 40 countries with its production approach with no compromise in quality.

Today, Kormetal has an aluminum processing capacity of 5,000 tons/year and its casting sites operates in two main departments as rim and injection molding.

In Kormetal production premises, mainly thermoregulators (mold conditioners), injection machines, dosing furnaces, presses and compressors make up about 70% of the total energy consumption of the factory. Each machine, whose daily energy consumption exceeds 30kWh, is integrated into KIO Platform and total consumption of 14,000kWh is instantly monitored.

Before the implementation of KIO, daily consumption data was collected and recorded manually by operators in a 4-man-hour time period and data control could not be performed. The project pays for itself in a period of 8 months when you consider only the hourly wages of the operators who collect and enter the data. Furthermore, thanks to the analysis provided by the Advanced Monitoring Module, new energy projects were initiated within the factory.

In addition, KIO avoids possible malfunctions by means of alarm warnings in case of over-current conditions.

Mr. Ahmet Canat, R & D Manager at Kormetal, manages the KIO project and says: “Thanks to the renewals made in the pumps, we achieved a 50% saving in the particular unit and a 2% reduction in total factory energy consumption. Thanks to KIO, we have started many more energy efficiency projects in our factory and our R&D team is following the results with enthusiasm.”
AIM OF THE PROJECT

- To monitor the energy consumption values in real time and instantaneously, by avoiding potential mistakes of operators,
- To access reliable data in order to identify projects that will increase operational efficiency,
- To increase energy efficiency indices by determining main consumption expenses.

Solution: KIO Standard Module, Advanced Monitoring Module

Number of measurement points: 69

BENEFITS

- The process of noting the indices on the papers by visiting the electricity meters one by one is eliminated. Hence, 4 hours of labor savings were achieved.
- In case of over-current conditions, quick intervention is possible thanks to KIO’s alarm management.
- Relevant parameters can be monitored for preventive maintenance.
- With the help of Advanced Monitoring Module, energy efficiency and unit cost calculation can be made in addition to comparisons on organizational, device or device group basis.