

## Industry Services

# Motor Management Program (MMP)

Maximize operational security and minimize downtimes – the efficiency-enhancing program for every plant

### Customer

Turkish Petroleum Refineries Corporation Tüpras (Türkiye Petrol Rafinerileri Anonim Şirketi)

### Customer location

Izmir, Turkey

### Project/Plant

Oil refinery site in Izmir-Aliaga

### Contract duration

3 years

### Scope of products and services

- Insulation tests and maintenance of 2,000 motors
- Reconditioning, repairs, and exchange of drive technology
- Condition monitoring of motors with the S-RCM™ module and the proactive services Siemens Motor Management Program (MMP)
- Posting of ten technicians, one engineer, and one HSE engineer to implement project



### The challenge – to sustainably increase plant availability

Well-designed plant management is essential for high plant availability. Key factors include predictable maintenance intervals, calculable maintenance costs, and timely, expert repairs.

Siemens is the experienced company to contact for comprehensive products and solutions from a single source. That's why Tüpras made the deliberate decision to commission Siemens to maintain 2,000 motors in the Izmir-Aliaga oil refinery. Customer Services in Turkey has taken on the task of increasing motor availability and reducing unplanned downtimes, thereby ensuring stable production over the long term. A further objective is to reduce repair and maintenance costs.

### The solution – Siemens Motor Management Program Modules

With the S-RCM™ and Siemens Motor Management Program (MMP), Siemens offers an economical, efficient solution for maximizing plant availability, providing professional services for the entire life cycle of the motors.

In addition to insulation tests, this includes proactive and preventive maintenance. In the case of reconditioning and repairs, Siemens also rewinds the stator and rotor at one of its repair centers, as well as measuring and analyzing insulation, and replacing bearings.

### Systematic increase in plant availability

Siemens experts manage all maintenance and repair activities and also collect basic data such as serial numbers, series and year of manufacture, and take photos for documentation purposes.



*Siemens MMP: Reduced downtimes – higher productivity*

In the next step, we visually inspect the motors and, if necessary, perform initial evaluations such as insulation tests, and surge and hipot tests, if necessary.

The centerpiece of S-RCM™ and the Siemens MMP is a tool that initiates condition monitoring and generates a maintenance plan.

### **The benefits – reduced unplanned downtime losses and increased plant availability**

S-RCM™ and Siemens MMP contribute significantly to the availability and efficiency of the Izmir Tüpras plant. Siemens improves the operational reliability of motors through professional care that continues throughout the motors' life cycle, sustainably increasing operational life, and reducing unplanned downtimes by 67 percent.

By seamlessly monitoring the individual devices, our systematic Siemens MMP modules make it possible to schedule maintenance and downtimes. At the same time, the repair and reconditioning work performed by our experts minimizes the number of repairs necessary.

### **Sustainably increase efficiency**

The services of the Siemens MMP lastingly reduce repair and maintenance costs and over the long term. By increasing motor availability and reducing unplanned downtimes, Siemens guarantees the stable operation of the refinery and minimizes production losses.

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