

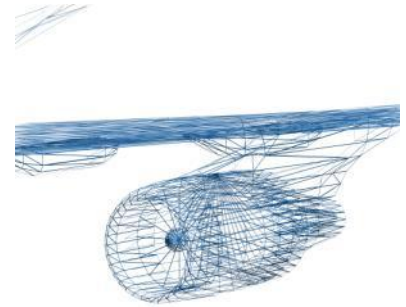


## DataNet Solution – Wireless Monitoring in a Production Plant of Aviation Components

**Application:** Aircraft manufacturing and storage  
**Organization:** Kale Aviation Ind. Inc.

### Background:

A cutting-edge aviation component plant required climate monitoring of the ambient conditions of their manufacturing and storage sites, in order to ensure compliance with stringent industry regulations and verify quality control and safety during the production cycle.



### About the Customer:

Kale Aviation is the manufacturer of aircraft components (fuselage, wing and winglet) for leading aircrafts including s including Boeing's 737, 777, 747, and 787 models as well as the Lockheed Martin F-35. The production plant of Kale Aviation is based in Tuzla, Turkey.



### Key Customer Challenges:

- Temperature monitoring is mandatory in the component manufacturing sector of the aviation industry.
- Kale Aviation has been using different types of chart recorders for monitoring temperature. However, this technology is very old and the devices are difficult to operate. So Kale Aviation decided to modernize their temperature monitoring systems and seek new technology.

### DataNet Implementation:

Kale Aviation installed 16 fourtec DataNet data loggers. Some are installed in the manufacturing and storage areas for measuring ambient temperature and humidity while others are installed directly onto the plant's CNC machines (automated milling machines) to measure the cutting oil temperature during production.

The system is comprised of five DNL808-BXT data loggers, eight DNL810-BXT data loggers, two DNR800's (Mini Repeaters) and the DNR900 Receiver, in addition to the



DataSuite software, which includes a single network for both production and storage areas controlled by a single PC.

Kale Aviation also utilizes the Email Alarm Notifications feature so they will be notified when there is a deviation from pre-defined acceptable temperature and humidity levels.

#### **Measurable Results:**

- **Helicopter view** – Fully controlled single view of the manufacturing and storage areas
- **Remaining constantly appraised** – Continuous alerts and updates via email
- **User-friendly software** – In this high regulated industrial environment, the DataSuite software provides a clear visual map of the data network path, deployed units, alarms indications, and data strength and flow throughout the facility.

#### **About PRO-TEK ANALİTİK**

The Kale Aviation case study was supplied by **PRO-TEK ANALİTİK**, a fourtec distributor based in Turkey.

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