![wireless sensors logo]

WIRELESS TEMPERATURE MONITORING SOLUTION INCREASES THROUGHPUT IN ALUMINUM PLANT.

CUSTOMER
An Aluminum Company, located in the central United States region has been a state-of-the-art manufacturer of aluminum sheet products in a commodities business since 1983. Their products include the fabrication of rigid container sheet, building products, automotive sheet, distributor sheet, and food can stock.

BACKGROUND
The customer's manufacturing process takes raw aluminum billets and uses a cold rolling process to produce rolled aluminum goods. Rolling process technology is straightforward and provides little opportunity for improvement or optimization.

Cooling stations are required to let the metal cool to 100 degrees after being heated to 225 degrees as a result of the rolling process.

A cooling area is set up in the plant with an area about the size of a football field. An overhead crane operator manually monitors the temperature of about 100 rolls to determine when they are cool enough to move.

PROBLEM TO SOLVE
A meaningful throughput bottleneck was identified at the cooling station as the existing temperature measurement process required the crane operator to climb down from the crane regularly and perform direct measurements on the rolls.

THE WIRELESS SENSORS SOLUTION
A wireless temperature monitoring system was deployed in the plant, which automatically monitors the temperature of rolls in the cooling rack every minute. The data is wirelessly transmitted to a computer in the cab of the overhead crane. The operator can access to the temperature information, and move the materials when the correct temperature is reached, thus eliminating the need to make manual measurements.

RESULT
The customer has increased its plant throughput by 6 million pounds of rolled aluminum per year and its payback on the SensiNet system was 3 months.

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