

# Bulk Chemicals Manufacturer Improves Product Quality with Reduced Capital Cost by Using Smart Wireless

## RESULTS

- Mitigated product quality risk
- Reduced operating costs
- Lowered installation and material costs

## APPLICATION

Cold box temperature monitoring

## CUSTOMER

Bulk chemicals manufacturer in the United States

## CHALLENGE

This bulk chemicals manufacturer was having problems maintaining temperature of the cold box. The cold box is used as a holding vessel to maintain product temperature before moving to the next process.

The temperature of the cold box was being measured with a simple thermocouple that was wired directly back to the DCS thermocouple input card. The direct measurement caused excessive temperature drift, which led to measurement unreliability.

The unreliable cold box temperature measurement presented a significant risk to product quality. Operations personnel did not trust the measurement and were constantly concerned about producing off-spec product and other downstream problems. Special field trips by operators to look at the local cold box temperature readings added to operating costs. The customer could not justify the capital costs needed in material and installation for more reliable temperature monitoring on the cold box.

## SOLUTION

This customer's problem was solved with a Rosemount 848T Wireless Temperature Transmitter. This high density temperature transmitter was centrally located, allowing for a reliable and low cost solution for the temperature measurement. The 848T eliminated the measurement drift the customer previously experienced by eliminating the direct wiring practice. The Smart Wireless self-organizing network eliminated the costs associated with new wiring and additional conduit.

The best core technology, implementation practices, and field intelligence built into the Smart Wireless solution provided a positive business impact to this customer.



*This wireless high density temperature transmitter was centrally located, allowing for a reliable and low cost solution for the temperature measurement.*



The Rosemount 848T Wireless

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The Rosemount 848T Wireless Temperature Transmitter allowed this bulk chemicals manufacturer to mitigate the risk of off spec product and downstream manufacturing problems. By providing reliable and continuous measurement of cold box temperatures, operating costs were reduced because special trips to the field were eliminated. These positive business benefits were realized at a reduced material and installation cost, compared to a wired solution.

### RESOURCES

#### Emerson's Smart Wireless

<http://www.emersonprocess.com/smartwireless/>

#### Rosemount Temperature

<http://www.emersonprocess.com/rosemount/products/temperature/index.html>

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