

# Temperature Instruments Secure Critical Start-Up Deadline on Lube Oil Project

## RESULTS

- Reduced commissioning time
- Reduced installation costs
- Reduced troubleshooting time

## APPLICATION

Temperature control and monitoring

## CUSTOMER

Lubricant Manufacturer in Malaysia

## CHALLENGE

A “Hot Oil Improvement Project” at a lube oil blending facility in Malaysia called for the addition of 23 temperature measurement points for control and monitoring of the process. These measurements were required to ensure the process was kept at a constant temperature prior to a chemical addition stage of the process. This process is critical to the quality of the final lube oil product.

This was a fast track project that required quick deliveries to coincide with the availability of electrical contractors. The engineers had two main concerns: the installation and start-up had to be quick and trouble free, and because they were on a tight budget, installation costs had to be contained.

## SOLUTION

Emerson engineers identified Fieldbus wiring as the key to reduce the installation costs. They also recognized the value of Fieldbus instrumentation with diagnostic capabilities to speed commissioning. They recommended three Rosemount 848T Temperature Transmitters and a 3420 Fieldbus Interface Module.

### Installation

Each Rosemount 848T is mounted in a junction box near the sensors to minimize sensor wiring and improve performance. Installation costs can be reduced by as much as 70% when compared to traditional sensor wire direct applications because each 848T accepts eight temperature inputs and have one cable for the fieldbus output. The fieldbus output runs to a Rosemount 3420 Fieldbus Interface Module that converts the information



*The Rosemount 848T and 3420 allowed the customer to complete startup and commissioning in one day.*



*Rosemount 848T 8 Input Temperature transmitter with FOUNDATION™ Fieldbus*

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to a standard Modbus RTU signal. This signal is then run to the DCS. The Rosemount 848T is a highly flexible temperature transmitter due to its ambient temperature limits, RFI immunity compliance, intrinsically safe approvals, and ability to mount in industrial environments.

### Configuration, Commissioning, and Diagnostics

Configuration of the field devices is done via the Ethernet connection of the Rosemount 3420 using any PC with a web browser. Because the 3420 automatically detects connected Fieldbus devices, the need for loop checks is eliminated thus reducing commissioning time. The 848T's ability to detect sensor open or short diagnostic speeds troubleshooting in both startup and maintenance situations. The Rosemount 848T and 3420 temperature measurement solution allowed this customer to complete start-up and commissioning in one day!

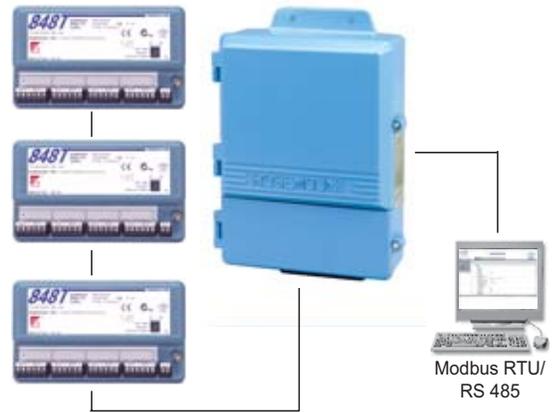
### RESOURCES

#### Rosemount 848T

<http://www.emersonprocess.com/rosemount/products/temperature/m848t.html>

#### Rosemount 3420

<http://www.emersonprocess.com/rosemount/products/accessories/m3420.html>



Rosemount 848T temperature transmitters networked to a Rosemount 3420 Fieldbus Interface Module for minimum cabling and installation costs.

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