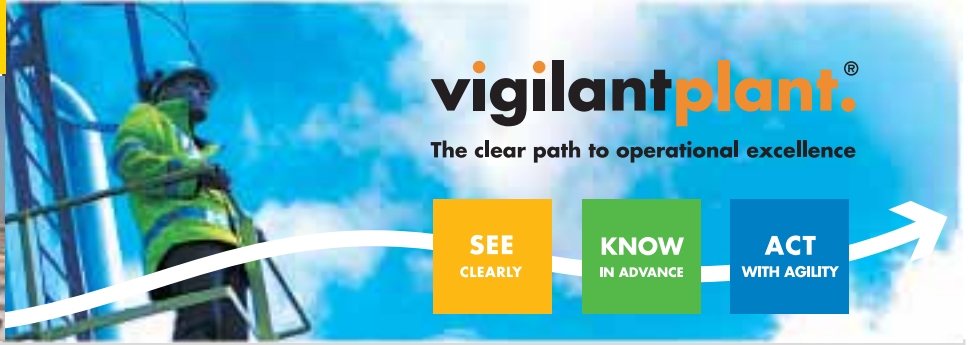


SUCCESS STORY



Application of FOUNDATION Fieldbus™ to Acrylic Fiber Production Process at Alexandria Fiber Co. (AFCO)

Location: Alexandria, Egypt
Order Date: August 2004
Completion Date: February 2005
Industry: Acrylic Fiber



Executive Summary

The AFCO project is a showcase of the good coordination between Yokogawa Middle East, Yokogawa Thailand, Yokogawa Singapore, and Yokogawa Electric Corporation. Yokogawa Middle East and Yokogawa headquarters both were involved in the project execution. Through the introduction of the FOUNDATION fieldbus technology, AFCO has achieved the following:

- Completed this project at significantly lower cost
- Improved the quality of products coming off the production line and reduced the production cost by gaining timely access to field information
- Acquired a predictive maintenance capability through the use of device diagnostic data

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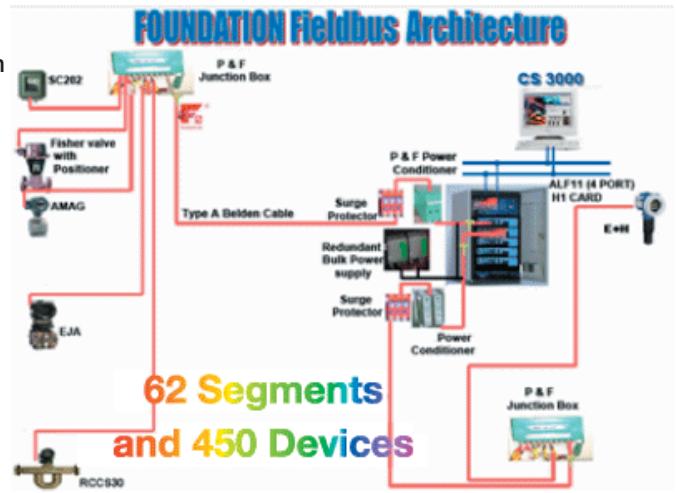
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The Challenges and the Solutions

AFCO asked Kawasaki Heavy Industries of Japan to play a role in the project execution. This was coordinated by Yokogawa Middle East and the Yokogawa headquarters in Japan, which sent a system engineer to Kawasaki to assist with project execution.

AFCO asked for Yokogawa to provide FOUNDATION fieldbus-enabled pH, conductivity, and mass flow meters that had not yet been introduced to the market. Yokogawa headquarters and Yokogawa Europe agreed to this proposal, enabling Yokogawa Middle East to deliver this solution on schedule.

AFCO also asked for all project execution work including the factory acceptance test to be conducted locally in Egypt, using a local panel manufacturer. Yokogawa Middle East met the demanding delivery schedule.



Customer Satisfaction

AFCO is particularly satisfied with the following project outcomes:

1. Through the use of the new FOUNDATION fieldbus enabled instruments and the Plant Resource Manager (PRM) software, they are able to spot and diagnose instrument problems directly through the control system.
2. The above capability has reduced maintenance costs, and made ongoing operations smoother.

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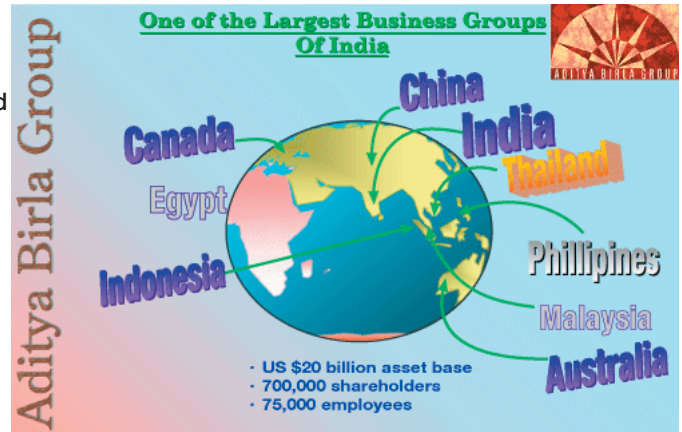
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About AFCO

The Alexandria Fiber Company is part of the Aditya Birla Group, which has a US\$20 billion asset base, 700,000 shareholders, and 75,000 employees mainly in Canada, China, India, Thailand, the Philippines and Australia. The company produces acrylic fiber and carbon black.

Acrylic fiber process technology from Japan Exlan Co. Ltd.
Basic design by Kawasaki Heavy Industries, Japan
Detailed design by Chemtex India



About the AFCO Project

This project followed our success with Thailand Acrylic Fiber (TAF), another company in the Aditya Birla Group. TAF's acrylic fiber control systems were completed by Yokogawa Thailand, using FOUNDATION fieldbus technologies.

TAF is very satisfied with Yokogawa's systems and field instruments and with the service support provided by Yokogawa Thailand, which is located just two hours from TAF. Our sales representative Giza Systems Co., located in Giza, Egypt can reach AFCO in Alexandria in just three hours to perform maintenance services.

Yokogawa's global strengths:

1. Strong after sales services
2. Quick local response
3. Large installed base and significant experience in similar projects, including work for Thai customers in the same industry as AFCO.

<System Details>

Control system: CENTUM CS 3000 (FOUNDATION fieldbus)

Number of I/O points: 450

Number of segments: 62