

Lubricant Manufacturing Solutions

Yokogawa's VigilantPlant solutions deliver visibility, predictability and flexibility for your lubricant manufacturing operations



Your Partner in Lubricant Manufacturing

In lubricant manufacturing, there are ever-changing complex and exacting formation requirements, whether material is processed in an in-line blending system or as a batch process. This requirement demands a control and information system that allows great flexibility in making constant changes to formulas and procedures, as well as being highly reliable and accurate.

- Experience, Know-how, Improvement

Since the release of the world's first DCS in 1975, Yokogawa has delivered plenty of projects globally to the lubricant manufacturing industry. Yokogawa understands the operational challenges impacting lubricant manufacturing today and is able to leverage extensive application experience combined with cutting edge technological solutions to provide a sustainable automation offering for the lubricants industry, such as lubricant terminal automation.

With experience and know-how, Yokogawa provides support in lubricant manufacturing with respect of continuous improvement and full utilization of manufacturing assets.

- Standard-based and Scalable Solutions

Yokogawa's customers expect a standard approach in project execution and delivery, regardless of the location where the solution will be delivered. Based on our comprehensive experience in lubrication projects globally, Yokogawa consistently provides standardized solutions to our customers no matter where they are located in the world.

Yokogawa's solutions are both integrated and scalable and suitable for customer building a new site or expanding/upgrading an existing one.

- Sustainability

Complex lubricant plants require continuous support to operate reliably over a long period of time. As a committed partner, Yokogawa offers original VigilantPlant services and makes it possible for lubricant manufacturers to maintain operational excellence over the entire plant lifecycle.

VigilantPlant services can identify new improvement possibilities in your lubricant plants and implement identified solutions effectively while achieving a rapid and significant return on investment.



Yokogawa's Key Enablers for Lubricant Manufacturing

Seamless Interface to ERP

Production Scheduling

Comprehensive Batch Reporting

Flexible Batch Management

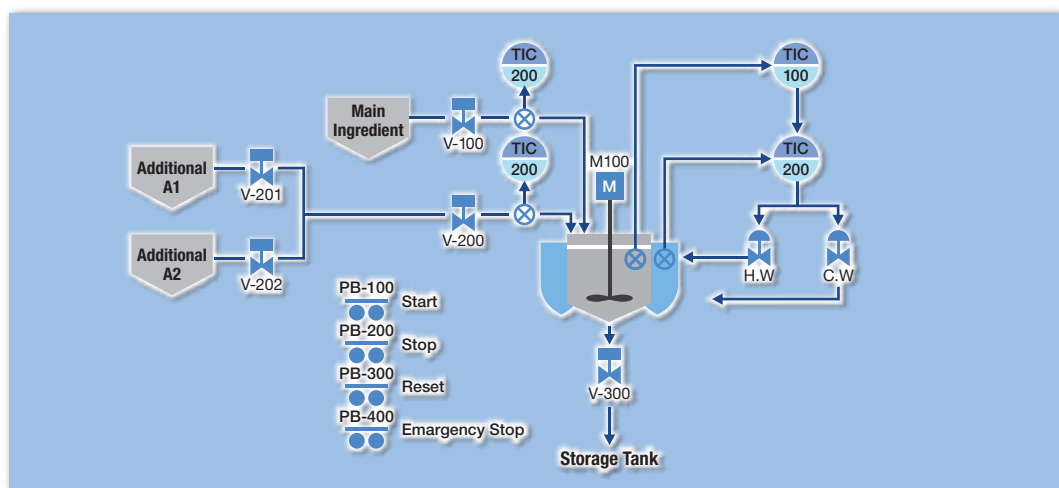
Flexible Equipment Management

Inline Blending Automation

Terminal Automation

- Flexible Batch Management

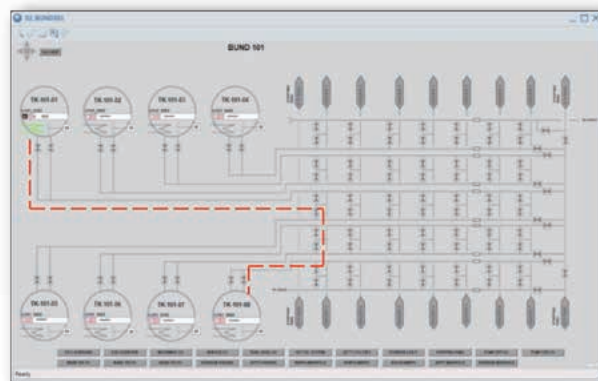
Yokogawa offers world class flexible and scalable batch recipe management for manipulating different process units to make products using a variety of methods. CENTUM VP Batch is key in providing modularity, flexibility, ease-of-use, outstanding reliability, and sophisticated functionality to meet all requirements of a lubricant manufacturing process.



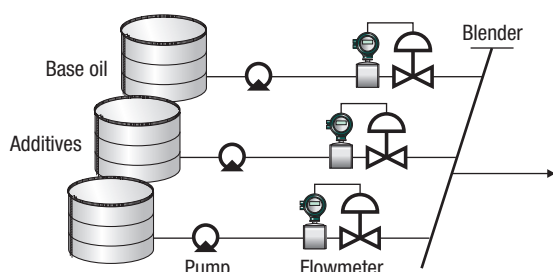
- Flexible Equipment Management

Most multi-product plants have a variety of ways to connect major process units. The challenge in these situations is to balance the need for flexible production with that of transfer path integrity. When it comes to ensuring that the right connections are made between multiple equipment, a flexible equipment management solution is essential.

A flexible equipment management solution from Yokogawa allows you to focus on production, not on the difficulties of maintaining the control system. Using the solution's flexibility, transfer paths can be automatically generated, saving time, avoiding contamination and enforcing operating procedures. Even when transfers are not fully automated, path management solution can provide for sequential and guided prompting to properly enforce safe and standard operating procedures.



- Inline Blending Automation



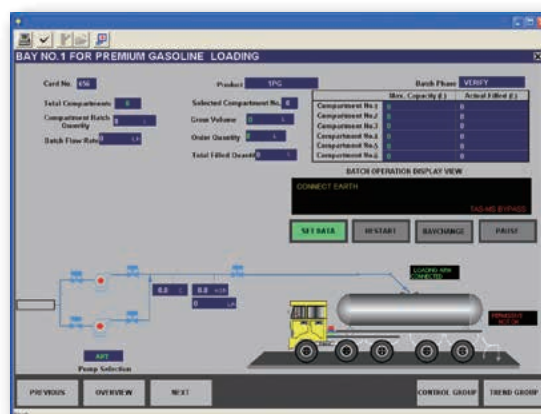
Continuous blending processes require “on-spec” material to be made as quickly as possible.

Yokogawa's in-line blending solution assures a constant on-specification product with optimum equipment usage and minimal operator interaction. This allows you to run at maximum rates with automatic adjustments and that reduces blend times without sacrificing quality.

- Lubricants and Terminal Automation

Loading, traditionally, is labor intensive, involving plant personnel both inside the control room and at the loading spots.

Yokogawa's field-proven terminal loading automation solution delivers benefits in time saving, accuracy, safety, and convenience. Truck drivers may drive up to a terminal, select their load order issued by a ERP system, and execute the load independent of plant operations. After loadings are accurately completed, BOL (bill of loading) is automatically issued. Results are electronically available to the terminal operator, and uploaded to ERP.



Success Story

Yokogawa Control System Improves Production Efficiency at Lubricant Plant in SFC Excellence



SFC Excellence Co., Ltd, a subsidiary of The Siam Chemicals Public Company (SCC), was founded in 1975 and has registered capital of 70 million baht. SFC Excellence is exceptionally well-known for its manufacturing products and considered to be one of the largest importers of base oil and lube oil manufacturers (toll blenders) in Thailand. SFC Excellence is able to produce the best quality of lubricants for automotive and machineries in industrial usage with a total capacity of 10 million liters per month.

SFC Excellence has been certified ISO9001 since 2003 and ISO/TS16949 since 2008 for its own manufacture of lubrication

oil. Additionally SFC Excellence is also responsible to produce many types of OEM oil brands from the UK, Germany, Japan, and Thailand etc. Finally SFC Excellence provides itself with a research laboratory performing a variety of scientific research and quality control.

- The Challenges and the Solutions

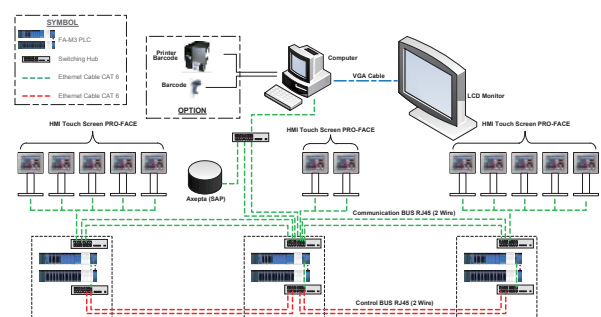
SFC Excellence had been manufacturing lubricants blending manually, and faced many challenges during daily operations such as: long process times, low flexibility of recipe management and inefficiency of raw components movement. These challenges had been directly linked to the productivity, profitability and safety of operations at the lubricant plant, and the company decided to change from manual to automated operation plant in 2012.

SFC Excellence selected Yokogawa because of Yokogawa's rich experience in meeting customer's requirements in lubricant manufacturing industry. Yokogawa successfully installed FA-M3, a cutting-edge controller, to automatically control the blending process in the lubricant plant, such as, base oil/additive movement, batch blending and filling.

The company also uses Microsoft AXAPTA for Enterprise Resource Planning and recipe management to maintain over 1500 recipes. Yokogawa provided interface to integrate information between FA-M3 and AXAPTA. By receiving production scheduled orders from AXAPTA, the control system can automatically execute orders with minimal operator interaction. Additionally, after a batch blending is accurately completed, the production results are electrically available to the operator, and uploaded to AXAPTA.

- Customer Satisfaction

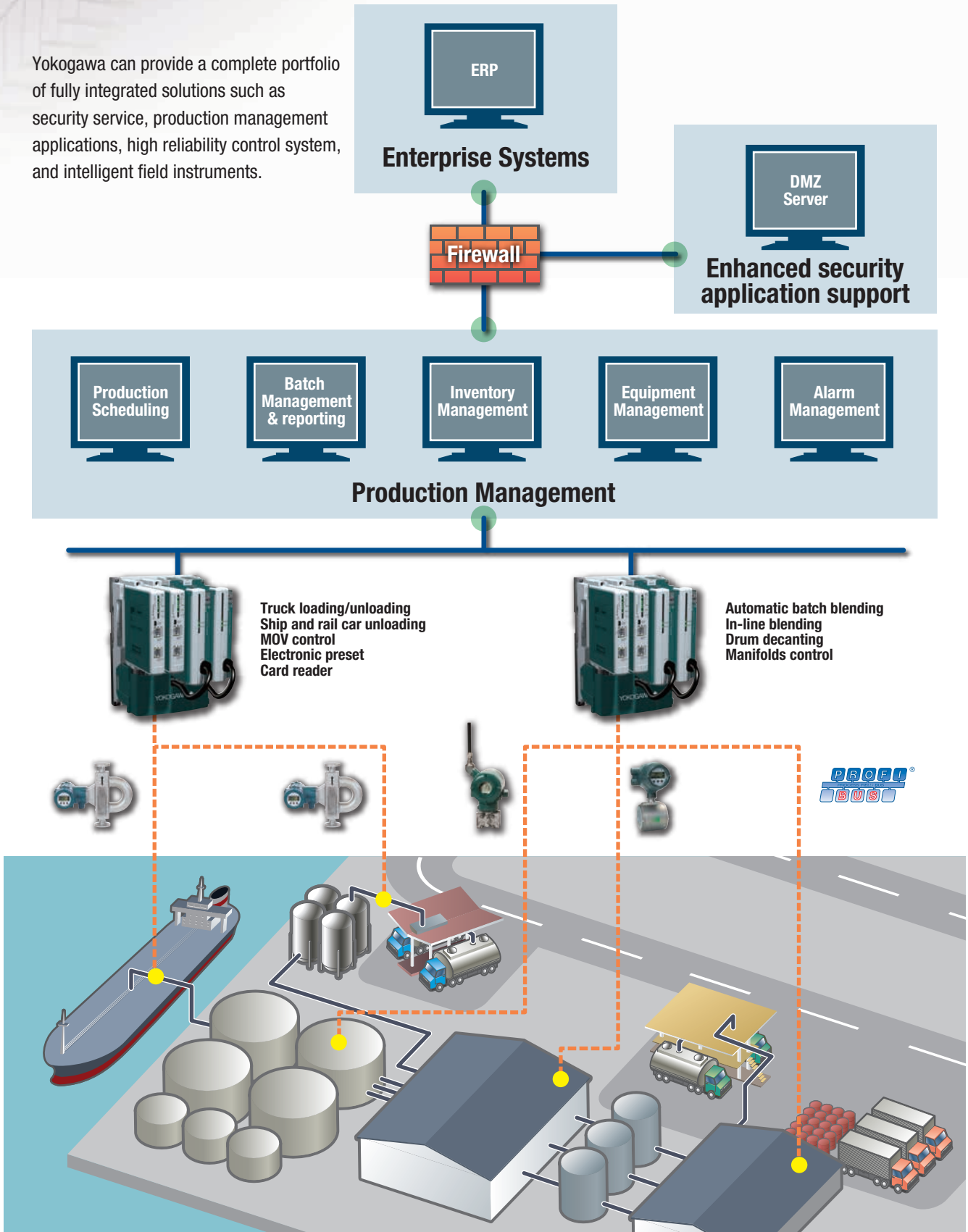
SFC Operation Director, Pakornphant Chantaravitoon, Ph.D, appreciated that Yokogawa was able to deliver the control system modernization within the planned budget. After three years of successful operation with the new platform, Dr. Chantaravitoon also praises the rock-solid reliability of Yokogawa FA-M3 controller. "The new solution has achieved high efficiency on production process and the enhanced functionality has reduced the workload of plant operators."



Yokogawa's Portfolio for the Lubricant Industry

- Fully Integrated Solutions

Yokogawa can provide a complete portfolio of fully integrated solutions such as security service, production management applications, high reliability control system, and intelligent field instruments.



South Africa
Egypt

YOKOGAWA