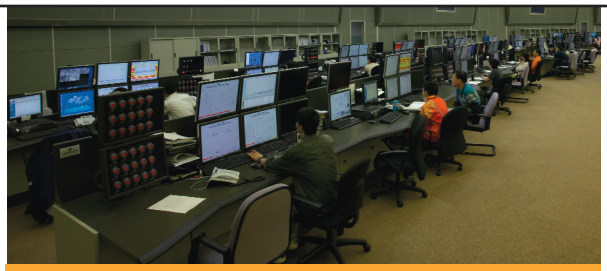
Shanghai SECCO Online Ahead of Schedule, Cuts Costs with PlantWeb® Digital Architecture and Emerson as MIV

RESULTS

- World-class, 10-plant complex brought online in record time, three months ahead of schedule
- Significant savings on cabling
- Maintenance costs expected to be cut by one-third



APPLICATION

Petrochemical processing complex producing ethylene and nine related products.

CUSTOMER

Shanghai SECCO Petrochemical Company Ltd. (SECCO) is a joint venture between Innovene (formerly BP), Sinopec, and Shanghai Petrochemical Corporation (SPC). The complex became operational in June 2005.

CHALLENGE

To help China meet fast-growing demand and reduce its reliance on imported petrochemicals, SECCO aimed to construct a world-class ethylene cracker facility. They established an aggressive schedule to construct a 10-plant complex – from bare ground to fully functional – in a record-breaking 27 months.

To ensure control over production efficiency from the feedstock through the petrochemical derivatives, the plants needed to be highly integrated, automated, and centrally controlled. SECCO also wanted a facility that would remain competitive by operating efficiently over the long haul, through improved plant asset management and reduced maintenance and downtime.

SOLUTION

As the main instrument vendor (MIV) for the project, Emerson ensured engineering conformance and standardization in each plant's processes, a vital step to establish long-term operating efficiency. Emerson's ability to manage global automation projects allowed it to effectively coordinate multiple international and local suppliers – including 10 different engineering procurement contractors (EPCs) – which helped drive the project to completion ahead of schedule.

"When you look at the complexity of building 10 units at one time, and asking all of them to start up in a short timeframe with minimum disruption, it's pretty amazing. At the beginning, we saw no probability of finishing in early 2005, but we were able to finish three months earlier than originally planned, and Emerson deserves much of the credit for making that happen."

Jack Brinly
Deputy Project Director, SECCO

For more information:
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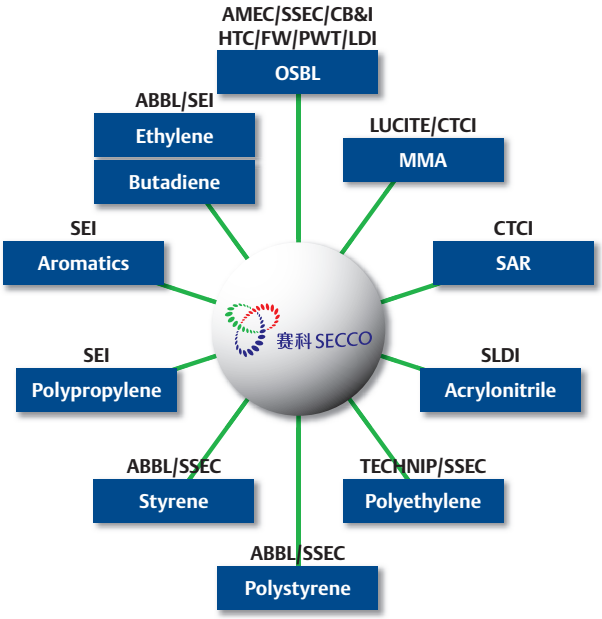
By using Emerson's PlantWeb® digital architecture with FOUNDATION fieldbus technology, the massive, multi-plant facility could be constructed with a central control room, and use less cabling than budgeted while enabling seamless, facility-wide collection, analysis, and communication of operations and diagnostics information. Emerson's smart field devices networked with FOUNDATION fieldbus throughout the facility allow SECCO to rely on rich, accurate device data to reduce maintenance costs and maintain efficient control and coordination of the 10 plants. This gives SECCO a long-term competitive advantage in supplying China's burgeoning petrochemical demands.

Emerson technologies provided as part of PlantWeb included:

- AMS™ Suite software for predictive maintenance, performance monitoring, and economic optimization
- DeltaV™ process automation system
- Fisher® positioners and FIELDVUE® digital valve controllers
- Micro Motion® Coriolis flowmeters
- Rosemount® measurement and analytical devices

"With so many contractors, SECCO realized that partnering with one main automation supplier early – that is, using the MIV approach – would be critical for the success of the project."

Danny McHugh
Process Control Manager, Styrenics, SECCO



Each of the 10 plants in SECCO is the largest of its kind in the world, enabling the facility to produce about 2.3 million metric tons of chemical products annually.

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