

Anti-cancer Compound Maker Indena Chooses DeltaV™ System for Batch Process Automation Results

RESULTS

- 50% installation savings
- Reduced regulatory compliance cost
- Reduced maintenance cost
- Reduced unplanned shutdowns



APPLICATION

High precision batch

CUSTOMER

Indena, a multi-national, privately-owned company located in Settala, near Milan, Italy, is the world's leader in identifying, developing, and producing active ingredients from plants for use in the pharmaceutical and health industries. Indena is one of the main suppliers of a potential new anti-cancer compound that has been approved by the FDA for phase 1 clinical trials. The facility extracts the anti-cancer compound from the leaves of a plant, then supplies the extracted product to a major pharmaceutical company for processing into the finished drug.

CHALLENGE

Andrea Piotti, Indena's head of technical purchasing for the Settala site says, "It is clear that for companies to be competitive in the future they will have to adopt a total plant vision and architecture that supports both the process control aspect and instrumentation maintenance." Further requirements sought by Indena were that the automation system should have an easy and effective programming interface as well as having software tools that are easy to learn. It was specified that the digital information from the field instruments should be able to be used to optimize the process as well as for predictive maintenance. Indena's operation staff was trained in a very short time.

SOLUTION

Indena chose Emerson as a partner because it wished to work with a large company that was able to guarantee continuous support, and

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Andrea Piotti

Director, Technical Purchasing, Indena



For more information:
www.EmersonProcess.com/DeltaV



could offer a technically advanced solution based on open protocols. Recognized as a world leader in engineering and implementing pharmaceutical automation solutions including conformance to FDA code of practice, 21CFR Part 11, Emerson implemented the automation solution for Indena based on its PlantWeb™ digital plant architecture including a DeltaV™ digital automation system, using FOUNDATION™ fieldbus technology. The equipment installed consists of four DeltaV controllers, with redundancy, handling 1400 I/O. They are supervised by one engineering workstation and four field operator stations.

Flexible, open, easy system

Emerson supplied a flexible, open system based on fieldbus technology that could be used to control the process as well as manage the instrumentation assets. Piotti believes it is essential for modern systems to do both.

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Built for batch

Manufacturing at the Settala facility is based on a high precision batch operation. In order to control and manage this process, Emerson worked with Indena staff to install and configure the DeltaV system. DeltaV Batch software provides a completely integrated batch control and batch history management solution. Additionally version control, engineering audit trail, and electronic signatures are built in to simplify regulatory change management compliance.

50% Installation savings

Indena has calculated that during the installation phase of the project alone they saved 50% of the cost when compared to a more traditional approach to plant architecture. These savings were a result of reduced wiring and installation costs, as well as reduced commissioning time by utilizing the digital communication capabilities of the field instruments.

In addition to initial savings, Indena expects to see savings across the whole lifecycle of its plant. The PlantWeb architecture is modular and scalable and can be expanded at low cost according to future requirements demand. Savings can be made in engineering and programming time through the use of easy graphic tools, such as block program language (IEC 1131). The PlantWeb architecture is based around open protocols so that should they wish to, Indena can use instrumentation from various suppliers.

AMS predictive maintenance software within the DeltaV system provides capabilities that enable easy reproduction of device



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calibration certificates for past calibrations, documentation of test scheme changes, and AMS system administrator events-providing integrated change management.

The use of AMS software can help to reduce the need for programmed maintenance. AMS monitors device status and alerts and can present the information on the DeltaV workstation, enabling a predictive approach to maintenance to be adopted. AMS can also be used to configure the field instruments as well as managing their calibration; it stores historical data allowing graphical trends to be produced that identify potential problem devices. The streamlined maintenance activities that are possible as a result of utilizing the capabilities of AMS can help to reduce unnecessary costs as well as minimize unplanned failures. The result is increased profitability and an improved plant lifecycle.

Future expansion, upgrades

Plant expansions or upgrades are simplified by the DeltaV system's plug-and-play approach that not only means reduced installation time for new plants, but also minimized shutdowns for upgrades.

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