



AIR LIQUIDE GLOBAL E&C SOLUTIONS, INDIA

Key Facts

Company: Air Liquide Global E&C Solutions

Website: www.engineering-airliquide.com

Industry: Chemical

Country: India

Products Used:
PV Elite®

Key Benefits:

- Met tight commissioning deadline to design 58 pieces of complex equipment
- Succeeded in team's first time to design heat exchangers
- Completed the analysis and design of columns and heat exchangers easily and quickly and with high accuracy

AIR LIQUIDE E&C EXPEDITES OLEOCHEMICAL PROJECT WITH PV ELITE®

EPC meets tight commissioning deadline for India facilities

Air Liquide Global E&C Solutions India (Air Liquide E&C), the engineering and construction unit of the Air Liquide Group, applies cutting-edge innovation to a comprehensive portfolio of proprietary technology for processing facilities and related infrastructures worldwide. These include technologies for the generation of hydrogen and nitrogen, cryogenics, synthetic gas, petrochemicals, liquefied natural gas (LNG), and oleochemicals.

IDENTIFYING GOALS

Air Liquide E&C was selected for the Godrej II project in Valia, Gujarat, India, involving two oleochemical production facilities. The project includes the fatty acid fractionation and distillation plant (Unit 105) with a capacity of 120 tons per day (TPD) and the glycerin distillation and bleaching plant (Unit 104) with a capacity of 35 TPD.

Based on Lurgi technologies, the plants provide high purity end products used in foods, cosmetics, detergents, surfactants, and pharmaceuticals. Air Liquide India provided basic and detail engineering, procurement, erection, and commissioning services.

OVERCOMING CHALLENGES

The Godrej II project posed significant challenges for the firm's engineers, including a tight commissioning deadline of 12 to 14 months for the design and delivery of more than 58 pieces of complex equipment.

"This was also the first time our team had designed heat exchangers," explained Arvind Raina, assistant lead for the New Delhi team at Air Liquide E&C.

Without automation tools, engineers would typically end up with errors in the analysis and design, resulting in wasted time and expense for rework.



To address the project challenges, Air Liquide E&C chose PV Elite because it incorporates the necessary design codes and has the automation tools needed to ensure optimum design in minimum time.

With PV Elite, the team quickly and easily performed the rigging analysis for columns and analyzed the expansion bellows for the heat exchangers. The company was also able to design the special heat exchangers required for the project that usually do not qualify for the TEMA classification.

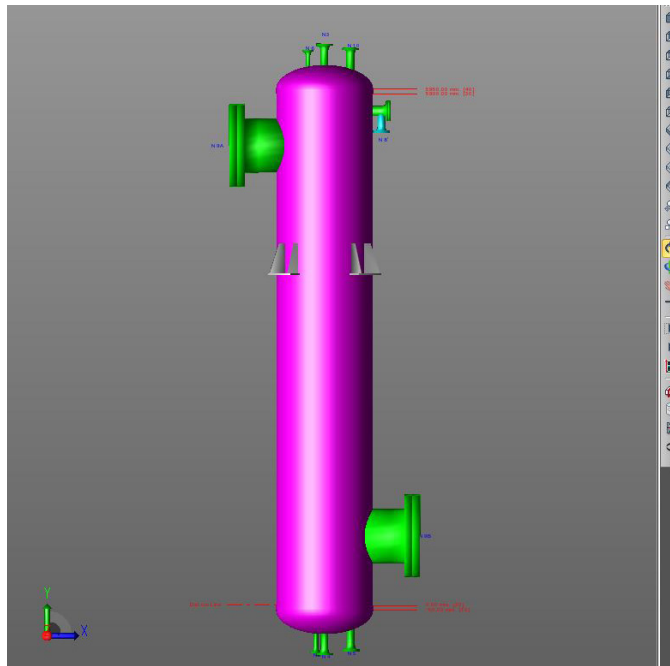
REALIZING RESULTS

Air Liquide E&C completed all design calculations and then generated the mechanical data sheet and other deliverables. PV Elite made it possible to complete the analysis and design easily and quickly and with high accuracy.

“With PV Elite, we saved a lot of labor hours and eliminated errors, avoiding costly rework,” Raina added, “and it would have been impossible to meet the tight design schedule and commissioning deadline without PV Elite.”

AWARD-WINNING PROJECT

Air Liquide E&C received the 2016 PV Elite Drivers of Success Runner-Up Award for its use of the software. The annual Drivers of Success competition recognizes innovative applications of Hexagon PPM products, impressive project results, and significant benefits from collaboration among disciplines and the integration of the products.



ABOUT HEXAGON PPM

Hexagon PPM is the world's leading provider of asset life cycle solutions for design, construction, and operation of industrial facilities. By transforming unstructured information into a smart digital asset, our clients are empowered to visualize, build, and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire life cycle.

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