



VEPICA, US

Key Facts

Company: Vepica

Website: www.vepica.com

Industry: Oil & Gas

Country: US

Products Used:

CADWorx® Plant Professional
Isogen®

Key Benefits:

- Centralized database with CADWorx to streamline project work
- Minimized errors while satisfying client requirements
- Achieved faster processing times for reports, drawings, and other client deliverables
- Reduced labor hours by 15 percent

VEPICA SPEEDS FRACTIONATION PROJECT BY 15 PERCENT USING CADWORX®

EPC addresses simultaneous engineering and fabrication challenges

Founded in 1972, Vepica is a multinational company with more than 40 years of experience in engineering, procurement, construction, and management projects (EPC/EPCM). The firm has completed more than 4,000 projects in four continents.

IDENTIFYING GOALS

Basic Equipment Inc. selected Vepica to design the fractionation facility of a 25,000 BPD Atmospheric Distillation Unit (ADU) in Houston, Texas, US, for processing Crude A (API 38.2°) or Crude B (API 45.8°) in single crude streams or a combination of these two feed stocks.

The facility includes 87 pieces of equipment and 28,500 feet of pipe ranging from 3/4 inch to 24 inches in diameter. The structural steel totaled 737,400 lbs.

Vepica offices in Caracas, Venezuela; Bogota, Colombia; and Houston worked on the project. Effective communication among design teams was paramount to ensure they used the same design procedures to deliver quality results.

The project also required a modular process skid design, raising concerns that valve hand wheels might interfere with adjacent piping. In addition, the client demanded that the last third of the engineering cycle overlap with the fabrication phase of the project, leaving no room for error.

OVERCOMING CHALLENGES

“Without CADWorx, costly clashes and interferences were common as were dimensioning and format errors for piping isometrics,” explained Jesus Espiga, piping engineer at Vepica.





These issues often resulted in additional time for rework. And, without a centralized database, there were often errors in bills of materials, resulting in waste.

The project's multisite setting required careful management of the central database. With CADWorx, Vepica could synchronize design information from the three offices into one central database server as team members created the 3D model. The company could then automatically produce piping isometrics and accurate material take-offs.

To avoid interferences, Vepica created a report for the client, showing valve orientation by extracting supplemental Isogen® data. The report enabled the team to eliminate errors during fabrication and reduce operation times.

REALIZING RESULTS

Vepica used CADWorx to maintain quality control, reduce human error, and achieve faster processing times for reports, drawings, and other client deliverables. The client took advantage of the 3D model for reviews during the fabrication phase of the project.

"With CADWorx, we completed the project in 15 percent less time than our initial estimate," Espiga added, "and our client was highly satisfied with the quality Intergraph provided and began using us on other projects."

AWARD-WINNING PROJECT

Vepica received the 2016 CADWorx 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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