



## TECNIMONT, INDIA

### Key Facts

**Company:** Tecnimont Private Limited

**Website:** [www.tecnimont.in](http://www.tecnimont.in)

**Industry:** Chemical, Petrochemical

**Country:** India

### Products Used:

- PV Elite®

### Key Benefits:

- Met tight deadlines, earning client satisfaction
- Assembled large, complex vessels horizontally and then successfully lifted them to the vertical position, considering center-of-gravity calculations
- Reduced projects costs

## TECNIMONT CHOOSES PV ELITE® TO CREATE COMPLEX VESSELS FOR PETROCHEMICAL EXPANSION PROJECT

Headquartered in Mumbai, India, Tecnimont Private Limited (Tecnimont) is a leading global engineering, procurement and construction (EPC) company with extensive experience in large, complex turnkey projects. An integral part of the Maire Tecnimont Group, the company has provided world-class solutions, catering to clients on oil and gas, petrochemical and fertilizers, power generation, and infrastructure projects. With offices in New Delhi, India; Abu Dhabi; Qatar; and Jeddah, Saudi Arabia, Tecnimont has more than five decades of experience in multi-discipline engineering services, focusing on high-quality and planning standards and committing to timely project implementation.

### CONSTRUCTING LARGE VERTICAL VESSELS HORIZONTALLY

The Reliance Industries Limited Jamnagar project in India is designed to increase the production capacity of ethylene and other petroleum products at the complex. The third phase of the project, known as J3, includes expanding Jamnagar's gasification plants, ethylene cracker complex, and paraxylene plant. Tecnimont was selected for the complete engineering and engineering detail.

The project's short deadlines were a major challenge, in part due to the numerous extremely large columns that had to be erected within the stipulated time frame. Assembling the column components horizontally was the only time-wise approach, given the tight schedule. This meant assembling internal components (trays, packing, etc.) and external attachments such as platforms and ladders.

Lifting a column that is dressed up can be a major challenge because the center-of-gravity must be calculated in three dimensions (3D) due to the non-symmetrical weight at the various edges. The team had to consider each internal and external attachment's weight individually and then create a single model.



## DETERMINING CENTER-OF-GRAVITY IN JUST ONE CALCULATION

Using PV Elite, Tecnimont generated weights of all internal and external components individually, then calculated the 3D center of gravity for the entire model with attachments and internal components. The software's multiple tools saved significant time on larger length and diameter equipment design.

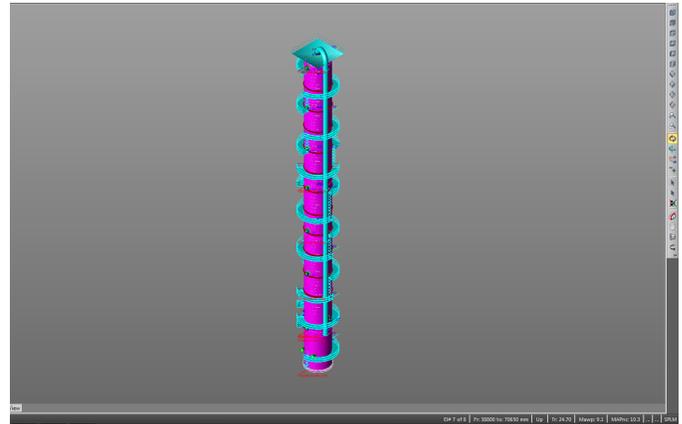
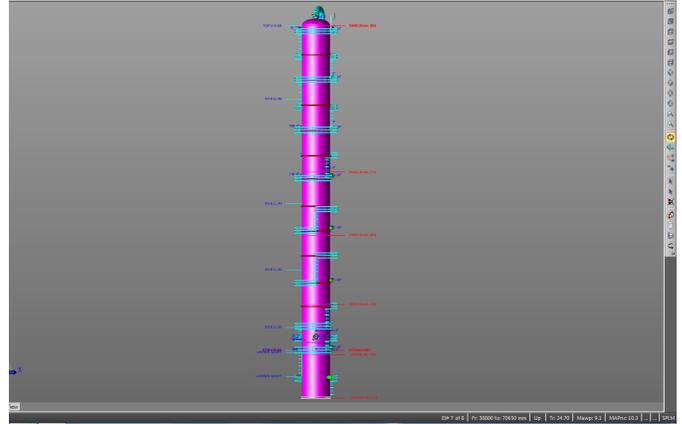
"PV Elite is the only solution that can model all attachments in a single model for analysis," explained Arpita Shah, principal engineer for the project.

Time is the major concern for all projects, and with the help of PV Elite, Tecnimont completed the project within the tight schedule and on time.

"It was really a very big achievement for our company because we were able to successfully determine the dressed-up column for lifting with one calculation," Shah added. "PV Elite proved to be a fast and economical solution."

## AWARD-WINNING PROJECT

Tecnimont received the 2017 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

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Our industry-specific solutions create smart digital realities that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at [hexagon.com](http://hexagon.com) and follow us @HexagonAB.