

## 3D Modeling & Piping Stress Analysis for Heaters

(PDS & CAESAR 2)

### Key Features

#### Technology:

PDS  
CAESAR II  
AutoCAD  
Navisworks

#### Duration:

The project was completed in 2 months

#### Deliverables:

1. Isometric drawings
2. Consolidated Piping - MTO in Excel format
3. Piping GA's drawing
4. Final 3D model
5. Stress report

### The Client

A leading heater manufacturer that engages in the construction, maintenance, and revamping of fired heaters and air cooled condensers in South Korea. They provide process fired heaters, such as crude distillation unit heaters, vacuum distillation unit heaters, UOP CCR platforming/AXENS aromizing heaters, pyrolysis furnaces, steam reformers, steam super heaters, lube base oil heaters, olefins conversion unit heaters, and other heaters. They primarily serve to environmental and energy sectors.

### The Business Need

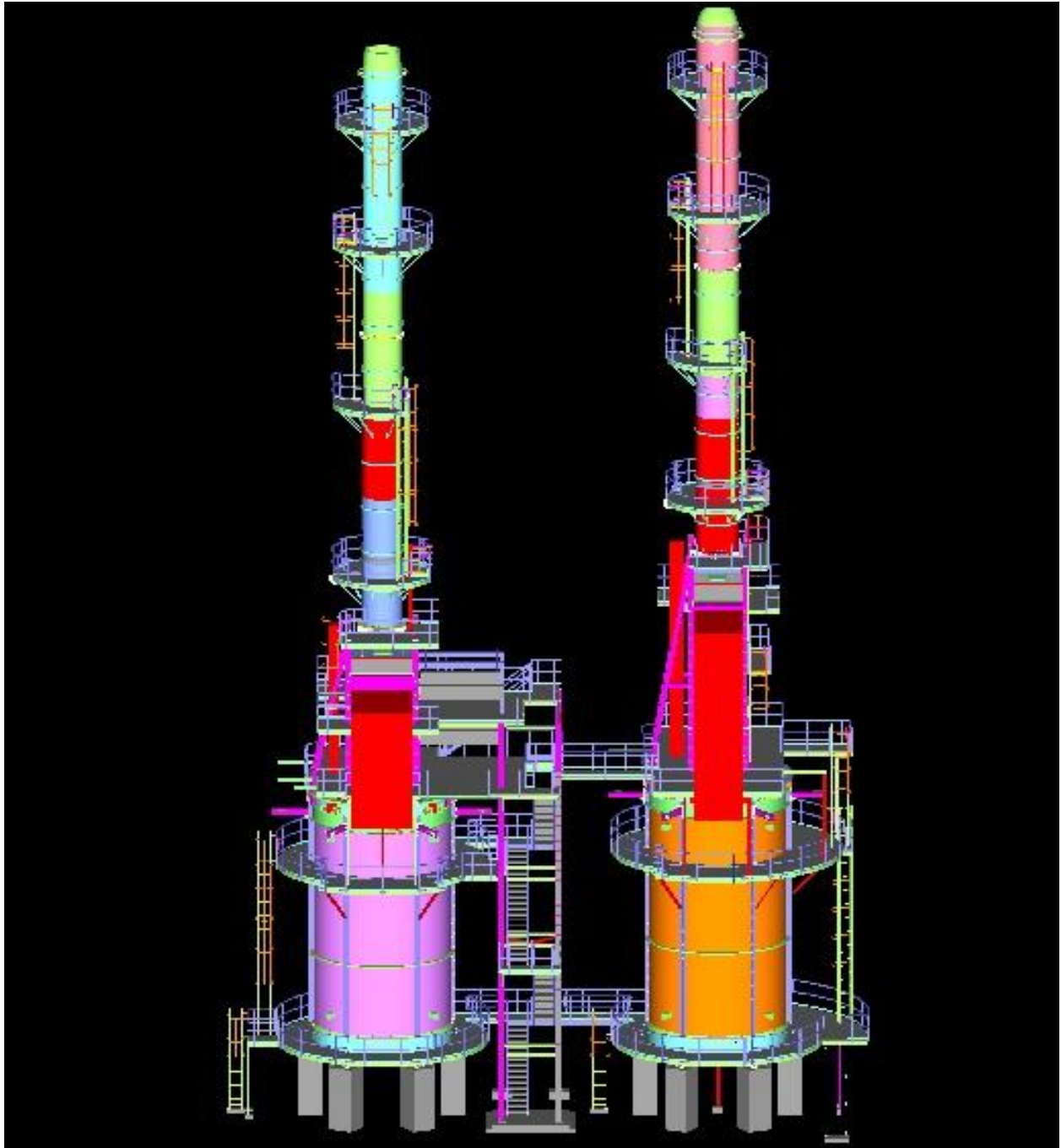
The client required the below business needs:

- 3D modeling and pipe stress analysis of Heaters
- Piping modeling
- Piping support modeling
- Stress analysis of stress critical lines
- Integration of structural model from Tekla X Steel to PDS
- Modeling of utility lines

### Rishabh's Solution

Rishabh's Engineering completed the 3D modeling, piping stress analysis within 2 months with a team of 7 members including 1 team leader.

ASME B31.3 codes and standards were followed to ensure higher quality in modeling and piping stress analysis for heaters.



## Technology Used

- 3D Modeling – PDS
- Stress Analysis – CAESAR II
- 2D Drawings – AutoCAD
- Review Software - Navisworks

## Key Deliverables

- Isometric drawings
- Consolidated piping - MTO in Excel format
- Piping GA's drawing
- Final 3D model
- Stress report

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More information about Rishabh Engineering, please visit:

[www.rishabheng.com](http://www.rishabheng.com) | [www.rishabhsoft.com](http://www.rishabhsoft.com) | [www.rishabhbpo.com](http://www.rishabhbpo.com)

### About Rishabh Engineering

Rishabh Engineering provides multidisciplinary engineering support services to EPC companies in industries like Oil and Gas, Petrochemical, Power and Water treatment. Our parent company, Rishabh Software is a CMMI level-3, ISO9001 and ISO27001 company that provides services in Software Development, Business Process Outsourcing (BPO) and Engineering Services Outsourcing (ESO) to clients globally. Rishabh has offices in USA, UK and India with their main delivery center in Vadodara, India.