

Multidiscipline Engineering for Reactor Area of ACE (Acetylenics Complex) Plant

Key Features

Technology:

Pipe Stress Analysis – CAESAR II

3D Modeling – PDS

Laser Scanning tool – LFM Server

Instrumentation Software – InTools

Review Software – Navisworks

2D Drawing Software – MicroStation

Duration:

The project was completed in 3 month

Deliverables:

1. Equipment GA Drawings
2. Visual Stress Analysis Reports
3. Equipment Foundation Drawings
4. Special Support Drawings
5. 3D Model
6. Instrument Datasheets
7. Isometrics Drawings

The Client

A privately held multi-discipline engineering, procurement and construction management company with 700+ employees located globally. They operate in industries like petrochemical, refining, paper, power, industrial power/cogeneration, gas transmission, manufacturing and fabrication.

The Business Need

The project scope was to replace the direct steam injectors with (4) shell and tube heat exchangers with complete detailed design for the piping, stress analysis, instrumentation, electrical (grounding), structural and civil on the lines and equipment.

Rishabh's Solution

Rishabh's Engineering team executed the replacement of direct steam injectors with 4 shell and tube heat exchangers with complete detailed design for the piping, stress analysis, instrumentation, electrical (grounding), structural and civil on the lines and equipment.

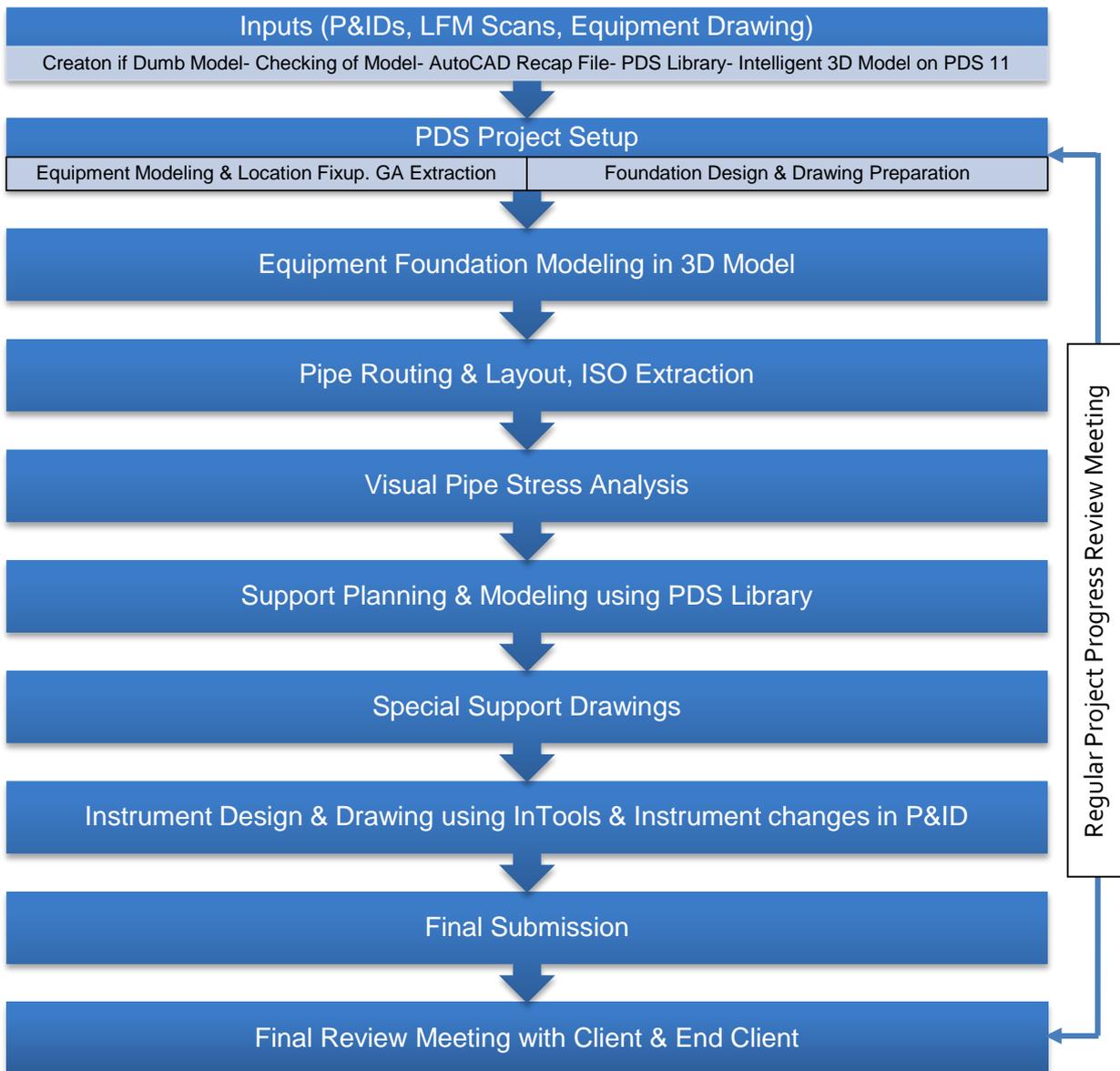
The client provided LFM Scans for the reactor area with associated P&IDS & equipment drawings. Using the inputs, Rishabh Engineering successfully replaced the synthesis reactor with 4 heat exchangers by giving best route for all the new lines (Approx. 35+ lines) for equipment covering all the connected supports, foundations, electrical & instruments.

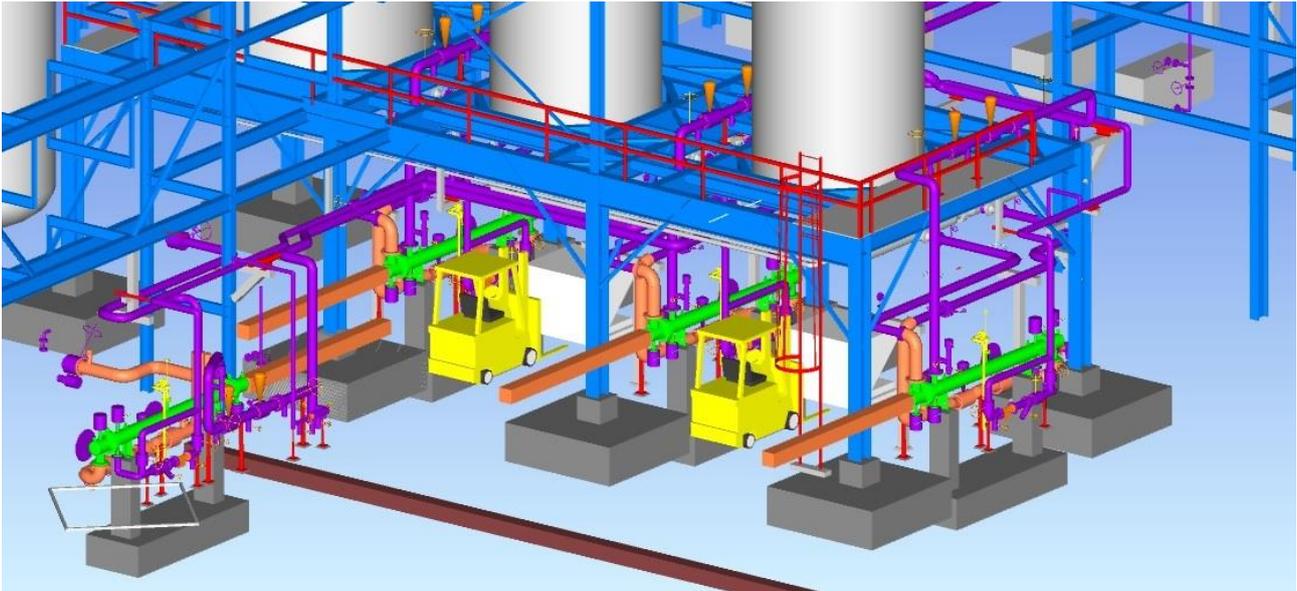
The client also shared registered & stitched Laser point cloud data. By using LFM tool, Rishabh created dumb model & after subsequent

checking, intelligent 3D model was developed on PDS 11 meeting all the quality & resolution parameters with an accuracy of 99.9%.

We completed the project within 3 months with a team of 6 members (including 1 team leader). All the project work was carried as per standard engineering codes and standards I.E. ASME B 31.3

Project Flow





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Key Deliverables

- Equipment GA Drawings
- Visual Stress Analysis reports
- Equipment Foundation Drawings
- Special Support drawings
- 3D Model on PDS
- Instrument Datasheets
- Isometrics Drawings

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More information about Rishabh Engineering, please visit:

www.rishabheng.com | www.rishabhsoft.com | 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.