

Structural Steel Detailing for a Ship Building Major

Enventure created fabrication detail drawings for a 100-ton steel structure with a team of skilled engineers and within a challenging time-frame.



About the Client

The Client is a Malaysia-based firm specialized in heavy fabrication and installation of facilities for industries such as Marine, Oil & Gas, Infrastructure and Airport. An industry leader in its own right, the Client has worked on several projects that include construction of large structures, civil & structural buildings, and steel fabrications. In addition to a significant presence in the international market, the Client is well-known for its expertise in various disciplines of Engineering Construction.



Business Need

The Client was working on a large infrastructure project that required Fabrication Detail Drawings for a huge chemical complex. The steel structure required drawings incorporating a large amount of technical details for fabrication and material specifications. A project of such magnitude usually demands detailed drawings of truss work, girts, purlins, stairways & ladders. These drawings are also referred to, by several relevant departments, posing the challenge of traceability and co-ordination.

Enventure was brought on board to deliver simple, yet comprehensive drawings for the project by a team that had expertise in designing large tonnage structural projects. Additionally, the client also wished to gain economic benefits by completing the project within the stipulated time-frame.



Why Enventure

Enventure's previous experience in similar projects was an important factor at the time of engaging with the Client. The fact that Enventure had extensive past experience in the same industries that the Client worked in, helped cement the partnership.

The following factors further enabled Enventure to win the confidence of the Client:

- An in-depth knowledge of the industry and related business problems
- A team of highly skilled structural engineers & designers
- Wide exposure of various country codes & standards
- A portfolio of successfully implemented projects
- Custom-made approach keeping the Client requirements in mind

The Solution

An 8-member team of experienced and skilled engineers was setup to immediately start work on the project. The team had a mix of 3 engineers and 5 designers with experience across Marine and Oil & Gas industries. The team structure was made keeping their previous experience in mind, such that the learning curve could be shortened.

Enventure used a strategic approach to address the Client's requirements. The project comprised drawings generated in segments like single part, sub- and top-level assemblies. The team also devised a unique numbering system that offered clarity on drawings for the aforementioned segments, thus reducing the scope for errors during construction, besides also ensuring increased traceability among relevant departments and stakeholders.

In addition, Enventure released the drawings to the Client in phases to enable simultaneous construction of the 100-ton structure. This allowed the project to be completed on schedule, thereby avoiding delays and entailing costs such as penalties and project overheads.



Benefits

The use of TEKLA software and the experience of a dedicated team of engineers enabled Enventure to produce deliverables as committed to the Client. The Client was able to benefit from a methodical work process and meet deadlines in the fabrication and installation of the large infrastructure project. Broadly the Client was able to gain the following benefits:

1. Detailed BOM leading to optimal procurement
2. No re-engineering requirements at the shop floor
3. Effective utilization of resources
4. Better traceability of drawings



Conclusion

Enventure partnered with the Client to deliver a project that did not compromise on quality despite a constricted time-frame. The team at Enventure was able to understand, analyze and address the Client's business problem in a methodical and systematic manner. While Enventure's experience had won the confidence of the Client, it was the team's skill and execution that strengthened the partnership between the two companies.



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