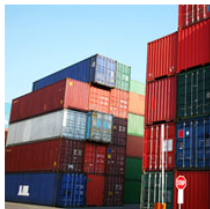


CASE STUDY ON DNV CERTIFIED DESIGN FOR SHIPPING CONTAINERS



The Client

Flatworld teamed up with one of the giant Egyptian manufacturers of shipping containers. This well-known corporation, with years of experience and credibility, has carved a niche in the domain of supplying shipping containers to clients across the world. Widely renowned for possessing an enormous fleet of container ships, this company provided us with the opportunity to go beyond the conventional methods, and deliver a unique tailor-made solution, catering to their needs.

Situation - Business Needs

Determining design architecture for a shipping container is a challenging task. There are multiple parameters and factors to be taken into care of while adhering to unique requirements, and catering to the particular area of usage and operation.

Another daunting factor was to plan how large shipping utilities, storage, hoarding, and cargo companies can be integrated with modern technologies without creating an artificial environment. After all, these vessels act as home for people for a really long period of time and creating a habitable and comfortable environment was an absolute necessity.

Challenges

During the tenure of the project, multiple challenges were encountered, and effectively dealt with. Some of those were -

- + **Strict adherence to the DNV standards** - DNV is over 140 year old authoritative body that dictates the guidelines for ships. It was a mandatory requirement that the containers were to be designed as per the DNV versions 2.7-1 and 2.7-2
- + **Highly detailed designs along with modern facilities** - The client required drafts for manufacturing shipping containers which would display the perfect harmony of latest technologies and tailor-made design, so as to provide ultra-modern facilities to the clients. This required extensive research as well as a creative approach
- + **Customized designs** - It was a primary requirement that the design plans must cater to Egyptian styles and standards. It was also to be remembered that high quality steel was to be used for the building purposes

The Flatworld Solution

After extensive research, numerous meetings with the in-house experts, and many proposals, the final solution was decided upon. The primary aspects of the solution included -

- + **Usage of high-quality software** - ProE® and AutoCAD® were used to complete the designs
- + **Formation of a highly experienced team** - A highly specialized DNV team consisting of expert and experienced professionals was formed, directly responsible for the drafts of the mechanical designs as well as for dealing with the instrumentation and electrical works
- + **Deputing DNV experts/specialists** - As complying with DNV standards was the topmost priority for the client, we assigned specialists to certify our designs. Not only that, an awareness program for DNV certification was conducted in-house, especially for the team deployed on this project
- + **Certification by DNV** - The final draft for the designs was sent for DNV certification. It was only after it got certified, that we delivered the architecture to the client

Results

The output was commendable, and can be summarized as -

- + Successful certification by DNV authorities for the submitted mechanical designs, durability, structure, and electrical and instrumentation reporting
- + The client was completely satisfied regarding the design of the off-shore containers

Not only did our designs meet the high standards expected by the client, as well as the norms set by DNV, it paved the way for the construction of facilities that can be used for stay, conduction of laboratory tests, and research.

If you have a similar requirement or are looking for bespoke solution that requires expert mechanical engineering, [Get in touch](#) with our mechanical engineers, we will be glad to assist you in taking your business to greater heights.