



Gulf Marine Maintenance & Offshore Service Company LLC, United Arab Emirates

Key Facts

Company: Gulf Marine Maintenance & Offshore Service Company LLC

Website: www.gmsuae.com

Industry: Petrochemical, Gas

Country: United Arab Emirates

Products Used:

- PV Elite®

GMMOS Succeeds on Vessel Fabrication Project in UAE with PV Elite®

Since 1983, Gulf Marine Maintenance & Offshore Service Company LLC (GMMOS), the high-end steel fabrication division of the VASUDA Group, has been providing equipment and services to the global oil and gas industry. GMMOS has headquarters in Dubai, United Arab Emirates (UAE) and a 35,000 m² fabrication yard in the Jebel Ali Industrial Area 1 in the UAE and at Aktau, Kazakhstan. The firm provides specialized pressure equipment, pipes and pipe spooling, skid packaging, including the mechanical and process engineering, for onshore and offshore, marine, shipping, chemical processing, water treatment and desalination plus equipment for power plants and refineries.

GMMOS has been working in coordination with a global engineering procurement and construction firm on a large-scale fabrication project for the development of the Shah Gas Field southwest of Abu Dhabi, UAE. The project includes 31 pressure vessels for multiple purposes and varying sizes with GMMOS providing design, detailed engineering, material procurement, fabrication, inspection, testing, painting, delivery and documentation of the pressure vessels.

Developing Fast and Accurate Deliverables with PV Elite

A challenge arose because these were low pressure vessels, the thickness required for internal pressures was not sufficient to provide the structural stability needed during operation and hydro-test conditions. Of the project's 12 largest horizontal vessels, two had an inside diameter (ID) of 6 meters and tan-to-tan length of 29 meters and two had an ID of 5 meters and tan-to-tan length of 25 meters.

PV Elite®, GMMOS produced accurate mechanical strength calculations for pressure vessels per ASME BPVC Sec VIII Div-1 Ed 2007 + 09 Addenda and Ed 2010 rules for the design and construction of pressurized boilers and vessels.

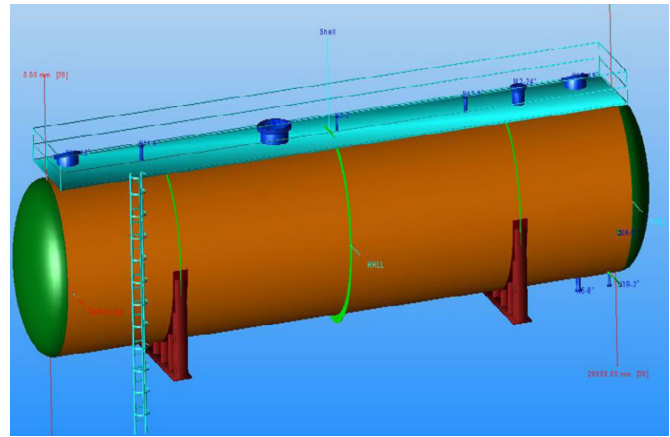
“We completed the required calculations faster and produced more accurate output by using PV Elite,” said Muthalagu Alagappan, supervisor of Engineering Design at GMMOS.

Reporting Speed of PV Elite to Ensure Project Workflow

Since the majority of these were sloping vessels, the saddle at the shorter side needed to have enough height so that its moment of inertia (MOI) equals or exceeds the stiffener rings provided. PV Elite provided a saddle design input option called height of web at center, to ensure that the MOI of the saddle was sufficient – where the circumferential stiffener ring was broken – to allow for saddle placement on the vessel.

Resolving Large Project Challenges to Deliver Satisfied Client

This type of project with its extremely large vessels, very high diameter-to-thickness ratios and great distances between saddle supports presented a challenge in finalizing the geometry, thickness, and location of supports. “By leveraging PV Elite, we were able to meet all of the project’s requirements and quality standards,” Alagappan said. “This helped ensure a good reference from the client for future jobs.”



About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, 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 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.