



ZHEJIANG TITAN DESIGN & ENGINEERING CO., LTD., CHINA

Key Facts

Company: Zhejiang Titan Design & Engineering Co., Ltd.

Website: www.zpcdi.com

Industry: Chemical, Petrochemical

Country: China

Products Used:

- CADWorx® Plant Professional

Key Benefits:

- Improved data quality with 3D design
- Optimized the design flow
- Developed the project management, procurement, and construction more efficiently

ZHEJIANG TITAN COMPLETES XIAMEN OMIC BIO-SCIENCE FLAVOR MANUFACTURING FACILITY AHEAD OF SCHEDULE AND UNDER BUDGET USING CADWORX®

Headquartered in the city of Hangzhou, Zhejiang Province, China, Zhejiang Titan Design & Engineering Co., Ltd. (Zhejiang Titan) performs engineering, procurement, and construction (EPC) services for a wide range of industries. These include petrochemical, chemical, pharmaceutical, textile, gas processing, and storage, and involve equipment, civil engineering, and utilities. Zhejiang Titan's 600 employees include 110 senior engineers and 280 nationally registered engineers, and the company has a Grade A certificate of engineering design, engineering consulting, and EPC services.

Xiamen Omic Bio-science Co. Ltd. chose Zhejiang Titan for the engineering design of its Natural Functions Chemistry project. A major flavor material manufacturer and supplier in China expanding globally, Xiamen Omic requires high safety, health, and environmental standards. The company uses renewable raw materials to make flavor products with natural characteristics.

ADDRESSING NUMEROUS DESIGN DELIVERABLES FOR COMPLEX PROJECT

The 65,000-square-meter (m²), 690 billion RMB project includes six units, five production workshops, and an area for storage tanks. The largest two workshops are 147 x 20 meters, and each workshop has four floors. The design model for equipment included 1,163 static and 393 moving pieces of equipment and 6,083 pipes, with diameters primarily of 100 m or less. The project required fast turnaround while the space for equipment and high number of associated piping was limited.



BENEFITTING FROM 3D DESIGN WITH ENGINEERING ANALYSIS COLLABORATION

With so many pipes in the small area, many could not be indicated clearly in a two-dimensional drawing. In addition, the team had to change the piping. The project also involved required numerous deliverables including more than 9,000 isometric drawings, 919 pipe drawings, 146 material lists, and 141 plane layout drawings.

“Facing these many challenges, our engineers leveraged the 3D modeling capabilities of CADWorx and its ability to interface with engineering analysis throughout each phase of the design,” explained Hailang Liu, project engineer.

SAVING 300 MAN-HOURS AND REDUCING COSTS BY 5 MILLION RMB

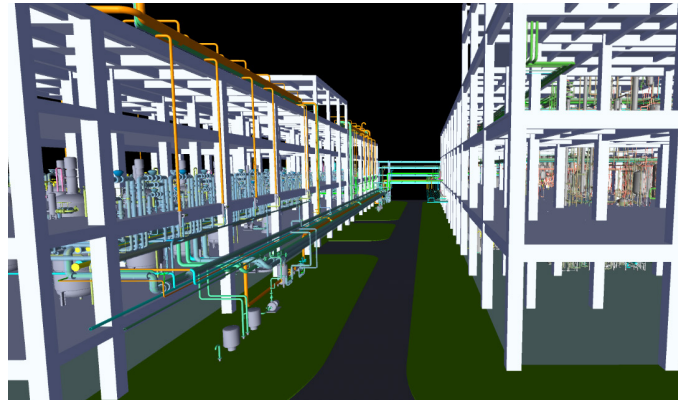
The five engineers on the project completed the piping design and issued drawings within nine months, a month ahead of schedule.

“By interfacing the design with analyses at key stages, we were able to identify and address potential errors and clashes,” Liu added.

This saved the cost of addressing issues later in the project, helping them manage the project flow to ensure a quality design. The team saved 300 man-hours and reduced the cost of material and construction by 3%, reducing project costs by an estimated 5 million RMB.

AWARD-WINNING PROJECT

Zhejiang Titan received the 2017 CADWorx Drivers of Success Award for its use of the software. The annual Drivers of Success competition recognizes innovative applications of Hexagon PPM products, impressive project results, and significant benefits from collaboration among disciplines and the integration of the products.



ABOUT HEXAGON

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Our industry-specific solutions create smart digital realities that improve productivity and quality across 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 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.