Leading Provider of Modular Solutions and Engineering Services

Wison Engineering Ltd.

633 Zhongke Road, Zhangjiang, Pudong, Shanghai, 201210, P. R. China

86-21-20306000

wisonmarketing@wison.com

wison-engineering.com

Website

LinkedIn

Leading Provider of Modular Solutions and Engineering Services

As a global leader in energy and engineering EPC services and a pioneer in modularization, Wison Engineering leverages its entire project lifecycle expertise to deliver integrated turnkey solutions covering engineering design, procurement, construction, and final delivery. With advanced digital planning systems and extensive experience working with global fabrication yards, we optimize designs to reduce construction risks, enabling rapid delivery of site-customized functional modules.

From small-scale to mega-scale projects, we combine the strengths of standardization and customization to guarantee engineering quality while meeting different budget and schedule requirements, providing cost-effective modular solutions for clients worldwide.

Modular Projects for the Last 10 Years

Project	Location	Client	Scope/ Contract Type	Module Scope	Module Size (L x W x H)
LDPE Plant of Ethylene Complex	USA	Formosa Plastics	EPFC	Module detail design, procurement, fabrication and erection for pipe rack	45m x 7.6m x 8.5m
EG-2 Expansion Project	USA	Nan Ya Plastics	EPFC Lump Sum for EG Plant	Module detail design, procurement, module fabrication and erection for pipe rack & process modules	45m x 16m x 20m
FPC UT-3 Project	USA	Formosa Plastics	EPF	Modularization design & fabrication for pipe rack module	40m x 12m x 8.5m
PP3 Project	USA	Formosa Plastics	EPF	Modularization detail design, procurement and fabrication for pipe rack & process modules	38m x 9m x 7m
Formosa Sunshine PP FEED Project	USA	FG LA	FEED for Polypropylene Plant	Modularization design for polypropylene plant and cost estimation for EPFC	49m x 24m x 34m
PDVSA Deep Conversion Project Puerto La Cruz Refinery	Latin America	PDVSA	EPC for RPLC Refinery	Modularization design & fabrication for pipe rack and process modules	30m x 11m x 14m
Zhoushan Refinery Complex Project	China	Zhejiang Petrochemical	EPC	Cracking furnace module design, fabrication, and erection	31m x 12m x 65m
Fluorine and Chlor-alkali Chemical Project	Abu Dhabi	GFC	EPF	Modularization design & fabrication and transportation of process modules	62m x 20m x 35m
AP US Ammonia and Utilities Project	USA	Air Products	EPF	From FEED to detailed design, modularization, and fabrication	100ft x 20ft x 20ft

Why Modularization?

Modular construction is a strategy for building industrial facilities by dividing plants into prefabricated units. These units are manufactured in fully equipped fabrication yards and then transported to remote project sites for installation. This approach improves construction quality, shortens on-site schedules, and mitigates risks associated with labor shortages, equipment scarcity, extreme climates, or regulatory restrictions. It also reduces site work, lowers carbon emissions, and supports low-carbon construction goals.

Through years of practice, Wison Engineering has successfully delivered projects using various module types, including process unit modules and pipe rack modules.

Modularization helps avoid cost overruns and schedule delays, making it particularly suitable for:

Labor Constraints

- High labor costs
- Shortage of local workforce
- Lack of skilled workers

Construction Barriers

- Harsh climate conditions
- Regulatory or permitting constraints
- Limited construction equipment

Complex Site Conditions

- Difficult logistics and transportation
- Limited construction area

What We Modularize?

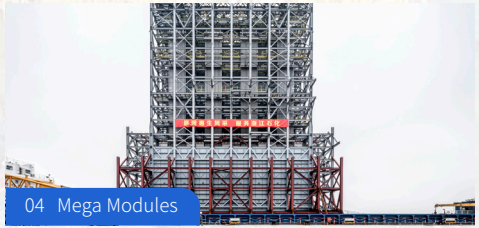
Wison Engineering provides modular solutions worldwide, offering end-to-end capabilities from concept design and module fabrication to transportation and installation. From small functional modules to mega integrated modules, each can be flexibly customized according to site conditions to adapt to different local sites, ports, and logistics conditions.

By shifting much of the construction workload to controlled fabrication environments, we significantly reduce on-site complexity, improve safety and efficiency, and ensure reliable delivery in regions with high labor costs, resource scarcity, or complex conditions. With advanced design expertise and established fabrication bases, we deliver projects with controlled costs, optimized schedules, and consistent quality.

01 Small Modules

02 Pipe Rack Modules

03 Process Unit Modules



04 Mega Modules

Modular Engineering Process from Design to Manufacturing

- Module Envelope and Weight Verification
- Optimization on Module Arrangement
- Module Schedule Match RAS Date
- Bi-Weekly Informal Model Review
- Formal Constructability Review
- Calculate Module Weight and COG
- Confirm Weight against Limits
- Update Module Configure index
- 60% Module Review 60%
- Perform MTO's Per Module
- Development to 90% Model Review 90%
- Production of Deliverables
- Foundation Drawing
- Steel Structure Drawing

Why Work with Wison

1 Modular Solutions Planned Systematically from the Start

Wison Engineering's modular solutions are integrated from the very start of each project.

- In the **conceptual design** stage, the focus is on building the overall framework and validating technical feasibility.
- During **Pre-FEED**, modular feasibility studies are carried out, standards are established, and logistics partners collaborate to confirm transport viability.
- At the **FEED** stage, engineering development is further advanced with critical technical documents delivered such as cutting drawings, modular specifications, and transport reinforcement plans.
- In **detailed design**, highly refined modular engineering is executed, including structural analysis under more than 24 load conditions and the integration of specialized plans such as marine lashing. With each stage seamlessly connected, the process ensures efficient progress and reliable project delivery.

Why Work with Wison

2 Global Sourcing and Chinese Supply Chain

Wison Engineering has established a network of over 1,600 global suppliers and long-term partnerships with leading equipment manufacturers. Wison has extensive experience in international procurement across Asia Pacific, the Middle East, and Europe. Supported by rigorous supplier evaluation processes and dynamic management systems, along with strategic fabrication yard partnerships, we ensure multi-point coordination across procurement, inspection, and delivery to effectively control cost and schedule.

1600+ Suppliers

20+ Countries

66% With International Project Capabilities

3 Strong Interface Management

Wison Engineering has its own engineering design team and modular manufacturing facilities, which can significantly reduce interface coordination issues in modular projects.

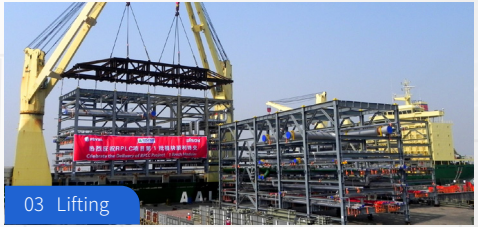
By integrating workshop processing into the detailed design phase, we ensure seamless manufacturing workflows, thereby reducing design changes, avoiding interference issues during module installation, and lowering coordination costs among multiple contractors.

4 Flexible Positioning Solutions for Site Conditions

Wison Engineering provides customized module positioning solutions for diverse site conditions.
We have recent experience in FLNG and are expanding our expertise into topside modularization for future new energy plants.

01 Jack Down

02 SPMT Positioning


03 Lifting

04 Floating Plant Modularization

Project Case

Small Modules

Air Products US Ammonia and Utilities Project

Client: Air Products
Size: L100ft × W20ft × H20ft
Scope: From FEED to detailed design, modularization, and fabrication
Time: 2022

The project is located in Texas, USA, and was Wison Engineering's first fully modularized EPC project. Acting as general contractor, Wison delivered end-to-end services from FEED and detailed design to procurement and modular execution. The plant was divided into modular units and stick-built areas, with extensive indoor prefabrication enhancing schedule control and quality. To ensure precision, Wison enforced stringent fabrication and installation procedures and provided comprehensive technical support for module transportation and lifting, demonstrating strong EPC capabilities.

Pipe Rack Modules

Nan Ya Plastics Ethylene Glycol Project with Modules & Prefabrication

Client: Nan Ya Plastics
Size: L45m × W16m × H20m
Scope: Module detail design, procurement, module fabrication and erection for pipe rack & process modules
Time: 2020

As the largest modularized project undertaken in the USA by a Chinese EPC contractor, Wison executed EPFC services for the ethylene glycol facility, including detailed design, shop design, material procurement, and prefabrication of 11,270 tons of pipe rack modules, as well as full transport and on-site construction. This project marked a breakthrough for Chinese engineering companies in the high-end North American modular market, demonstrating strong EPC capabilities.

Project Case

Process Unit Modules

Fluorine and Chlor-Alkali Chemical Project

Client: GFC
Size: L62m × W20m × H35m
Scope: Modularization design & fabrication and transportation of process modules
Time: 2021

The project is located in Abu Dhabi, UAE, and represents Wison Engineering's first large-scale process plant module. We worked with Chinese clients expanding overseas to implement modular solutions, integrating the main unit, membrane absorption, and incineration units into modules. Using 66 jacks to synchronously position a large process module measuring 62m × 20m × 35m, the overall plant delivery schedule was significantly accelerated. This allowed the client to prepare for trial operation by welding only a few tie-in points, thereby creating significant value.

Mega Modules

ZPC Refining and Petrochemical Project

Client: Zhejiang Petrochemical
Size: L31m × W12m × H65m
Scope: Cracking furnace module design, fabrication, and installation
Time: 2018

The project, located in Zhejiang Province, China, involved a 30,000-ton modular construction for nine 200 KTA ethylene cracking furnaces. Wison provided full services from detailed design and shop fabrication design to procurement, fabrication, shipping, marine lashing, transport, offloading, and site installation. Each furnace, with an annual ethylene capacity of 200,000 tons, weighed 3,689 tons and stood 53 meters tall. The process modules integrated complex equipment, including quench exchangers, steam drums, and SCR units, making them the largest liquid feedstock cracking furnaces ever delivered as fully modularized units worldwide. The successful delivery of these modules marked Wison Engineering's first large-scale modular construction project for an ethylene cracking plant.