

Tsukishima Kikai Group



Contributing to the world with environmental technologies

TSK ENGINEERING (THAILAND) CO., LTD.

TSK ENGINEERING (THAILAND) CO., LTD. was established in 1993 by Tsukishima Kikai Co., Ltd., the leading company in environment and energy fields in Japan.

Since then, as a unique Japanese origin Thai EPC contractor, we have been serving engineering, procurement and construction (EPC) and maintenance / after-sales services for chemical and foodstuffs plants in Thailand and the other Southeast Asian countries.

We aim to contribute to support development of our clients' business and to build recycling-based societies utilizing our technologies based on the concept of "local production for local consumption."

We will continue to advance our technologies still further in line with our corporate policy: "To make contribution to the society, the company will dedicate to the industry development and environmental protection by making advantage of its leading edge technology."

Corporate Policy

- 1. To make contribution to the society, the company will dedicate to the industry development and environmental protection by making advantage of its leading edge technology.
- 1. Primarily targeting satisfaction of market demand, the company will provide best products and services possible to customers.
- 1. While adhering to originality and vitality-based sustainable development, the company is proud to be a profitable enterprise that deserves the loyalty of its staff.





Company name : TSK ENGINEERING (THAILAND) CO., LTD.

Address : United Center Building, 14th Floor, Room 1404, 12th Floor,

Room C, 323 Silom Road, Silom, Bangrak, Bangkok 10500

Telephone : +66-2-231-1726-30

Website : URL: http://www.tsk.co.th

Established : 1993

Capital : THB 20,000,000

Industrial details : Plant engineering, procurement, construction (EPC),

Design and construction of buildings, Design and

manufacture of equipment for plant,

After service, Handling of Tsukishima Kikai Group's product

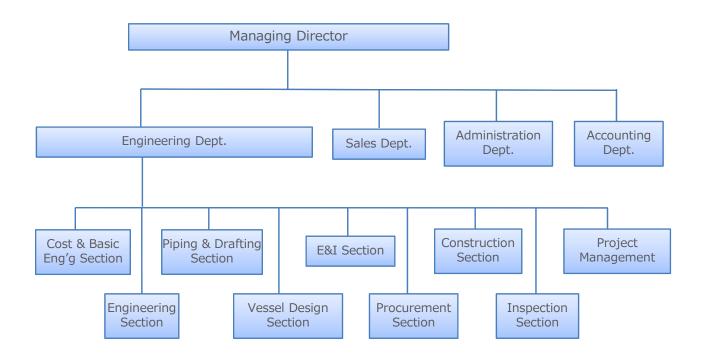
Employees : Total 79 persons (Japanese 15/ Thai 64)

Sales : THB 1,026,000,000 (2017)

THB 1,225,000,000 (2018) THB 790,000,000 (2019)



Organization



Japanese staff

Managing Director 1,

Basic Design 1, Project / Design /Construction 9, Inspection 1,

Sales 2, Accounting/Administration/HR 1 Total 15





Engineering, Procurement, Construction (EPC)

We offer full packages for engineering, procurement, and construction (EPC) services for the chemical, foodstuffs, and biotechnology industries. Based on our 28 years of experience in Thailand and other Southeast Asian countries, we also provide consulting services to support our clients' company set-up, market survey, feasibility studies, etc. for companies that are not familiar with plant construction projects in this region.

Throughout every process of projects, Japanese and Thai experts provide professional services to ensure the quality of deliverables. We promise to convey satisfaction and excitement to our clients.

Building design and construction.

For building design and construction, our experience covers various kinds of buildings, small to large, including industrial factories, foodstuffs/pharmaceutical plants, large-scale logistics facilities, buildings with special facilities such as clean rooms, and renovation of offices, canteens, and toilets.

Design, Manufacturing, and Supply of Plant Equipment

Tsukishima Kikai Co., Ltd. was founded more than 100 years ago as the manufacturer of sugar production equipment. As the member of Tsukishima Kikai group, we have strength in their core technologies: crystallization, filtration, distillation, separation, mixing and drying.

In Thailand, we have established strong relationships with our partners that manufacture our equipment with our design and quality control. Thus, we provide excellent-quality equipment at competitive prices.

To satisfy the demands of our clients in the environment and energy field, we also utilize the network of the Tsukishima Kikai group to offer the best solutions and equipment, especially in waste liquid handling and treatment, mixing and dispersing, powder handling, and factory automation.

After-Sales Service and Maintenance

Not only the EPC services for plant construction, we prioritize maintaining long-term relationships with our clients via provision of after-sales service and maintenance services, regardless of their scale from daily maintenance, parts supply to major rehabilitation.

We place importance on the prompt and proper response to satisfy urgent clients' demands.





Our motto is "To provide excellent quality services at competitive prices in Thailand".

Consulting

We have plenty of information and know-how in related Thai laws & regulations, BOI tax exemptions, and regulations of the industrial estates in Thailand. Based on the knowledge, we provide consulting services for clients who are not familiar with company set-up and plant construction in Thailand from the feasibility study phase.

We also provide basic design and engineering services. Based on the clients' very simple basic design information, we can develop the basic design packages and budgetary quotations for feasibility studies of the clients.

Engineering / Project Management

We are the specialist of EPC projects and provide full range of services including project management, civil, equipment, piping, electrical, and instrumentation, from feasibility study phase to plant start-up.

It is of great benefit to clients to save their resources to execute EPC projects within budget, with high quality and on schedule.

Architectural Design Work

By carefully imaging the client's idea, we create an interior and exterior design. We will provide an optimized solution design for "connecting clients with their clients" as well as "minimizing the environmental burden".

Procurement

Based on our long experience in plant construction, we have established strong relationships with various manufacturers, suppliers, and subcontractors. Considering quality and cost, we offer the best sources, from Thailand and anywhere in the world, for every goods and service that consist of the clients' EPC project.

High-level Safety and Quality Control in Construction Work

Safety is our highest priority in construction work.

As a Japanese-origin company, we strictly apply high-level standards in safety and quality to our construction management. We also fully understand the relevant laws and regulations in the country where the site locates.

Our professional services in safety, quality, schedule, and cost make sure that the clients' projects will be executed and completed successfully with full confidence.





Maintenance Work

We practice "all employees are maintenance staff" and provide prompt response to each work, such as expansion, revamping, repair, parts supply, or even for small-scale modification work.

Tsukishima Kikai Group Companies

Tsukishima Kankyo Engineering Ltd.

Design, production, and sales of systems and equipment used for environmental improvement and chemical / general industry.

PRIMIX Corporation

Production, sales, and system engineering of emulsifying, pulverizing, dispersing, and kneading equipment. Research and development of new products for emulsification and dispersion.

Tsukishima Machine Sales Co., Ltd.

Sales of Classifier, grinding mills, sand filter, vacuum filtration equipment, injection molding machine, gas injection device, abrasive, Repair service.

DAIDO CHEMICAL ENGINEERING CORP.

Engineering or designing, production or manufacturing, and supply or installation of equipment for chemical processing, such as acid recovery.

SANSHIN KOGYO Co., Ltd.

Manufacturing of equipment such as pressure vessels, heat exchangers. Construction and Repair work.



Full 3D Plant Design

Plant design by using AutoCAD® Plant 3D

We started to use 3D CAD software (AutoCAD® Plant 3D) in plant design since 2010, and we apply it to all EPC projects now.

As we can import the data of drawings of equipment and buildings into the CAD program, we develop 3D models with high precision in a short time. In the Feasibility Study phase, we can share the overall image of the plant that is "visualized" by a 3D model. The image will consist of buildings and equipment.

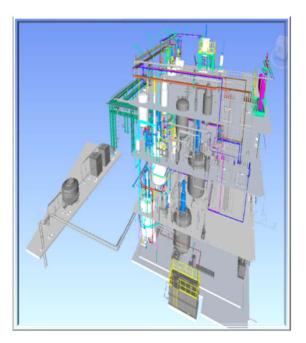
Space design in the project execution phase which includes equipment layout, piping layout, E&I layout is designed in 3D CAD directly. Therefore, we can provide a "visualized" comprehensive 3D model to all clients.

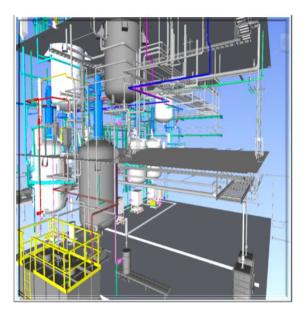
3D model design review

Utilizing comprehensible 3D model and reviewing the design with the client several times enable us to investigate the plant space design from various angles before the project starts, such as equipment layout, maintenance access, VE/cost reduction, working plan, measure for plant expansion in the future, etc.

Our drawings such as equipment layout, piping layout, piping isometric drawing, piping BOQ, etc., are prepared automatically from 3D CAD data. The project will proceed with drawings and materials that are exactly the same as the 3D model. Design mistakes such as interference etc. are checked by 3D CAD. Therefore, we can construct the high-quality plant in a short period with very little rework at the construction site.

After plant construction completes, we will provide the as-built 3D model and drawings to the client. The client can use the as-built 3D model to consider operation, maintenance, plant expansion or modification. If the client requests us to modify or expand the plant at the next project, we will use this as-built data of 3D CAD to plan, consider and design, so we will be able to execute modification and expansion work in a short time.







Project Management for multiple remote locations with IT

To work on projects in the Southeast Asian region, it is important to have smooth communication between multiple parties, for example, the client in Japan, our Bangkok office, our subcontractors, the construction site, etc.

We utilize IT such as cloud database, web meeting system, web camera, etc. for Project Management. This enables the client to keep track of the real-time project condition while they are in Japan.

Cloud database system to share large size data and drawings

We use a cloud database system to store and handle the project documents and drawings such as datasheets, design drawings, monthly reports, weekly reports, etc. Because of that, the client becomes free from controlling the document by themselves, for example; keeping track of the latest version, checking the return status, and so on. storage limitations of the email system.

With the cloud database system, e-mails with large size attachments are not necessary anymore. It is not necessary for the clients to be worried about the size limitations and the storage limitations of the e-mail system.



Real-time on site monitoring by web camera

At the construction sites, we set up all-weather outdoor web cameras. Therefore, the client can check the real-time site conditions and work progress from anywhere via the internet. Of course, the access to the site cameras is secured by limited to the client and us only.

Remote supervising

We have many experience and know-how in remote supervising. The supervisors of Tsukishima Kikai, or any companies outside Thailand, provided supervising service to our site work in Thailand utilizing IT systems and devices for remote supervising.

Whenever it is difficult to dispatch supervisors to the construction sites because of any limitation of travel, cost, or schedule, we can support remote supervising to solve all these problems.

Web meeting and TV conference

We can use any web meeting system such as Zoom and Microsoft Teams, and also TV conference system by Polycom. Either regularly or occasionally, web meetings help speedy decisions or smooth information sharing.

Building Design and Quality

We use a 3D model to create an architectural design. It helps clients to visually check the design from the early designing stage. We provide a functional and exquisite space design that will meet the client's image.

We pursue functionality. We consider the movement lines of both the production area and the office area. Also by using an environment-friendly design, we can propose a comfortable space with the latest features.

The visitor area is the place where "connecting clients with their client." We help to provide the "client's thoughts" at the visitor's area.

We build a facility or building with excellent quality that clients can use for a long time without worry.



Plant System, Utility System

We design, manufacture, and procure any equipment for chemical, food, and biotechnology plants.

Plant equipment

Equipment used for following field:

- Adhesive
- Surfactant
- Plating/Coating Functional Resin
- Resin additive Resin compound
- Biochemistry
- Foodstuffs
- (saccharides)
- Etc.

Various tanks/reactor

Agitator

Mixers / grinder

Dryer

Filter

Heart exchanger

Various pump

Electric/Instrumentation device

Utility Equipment, etc.

Building utility equipment

Water/Wastewater treatment plant

Fire fighting, fire alarm

Clean room

Solar power generation facility

Electrical systems

Elevator

Crane, Dock leveler, etc.

Product of Tsukishima Kikai Group

High speed agitator, Homogenizer

Powder handling system (TSK container),

Dryer (Steam tube dryer, Inclined disk dryer)

Filter (BoCross filter, Horizontal belt filter)

Mixer/grinder (MTI/universal mixer, Cyclone mil)

Centrifugal separator, Escher Wyss push-type centrifuge, etc.







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Sample construction progress pictures



Project References



Adhesive Plant

Period : Year 2011 (2nd Phase) Period : Year 2020 (3rd Phase)

Location: Rayong



Chemical Plant

Period : Year 2018 (1st Phase) Period : Year 2019 (2nd Phase)

Location : Chonburi



Chemical Plant

Period : Year 2018 (1st Phase) Period : Year 2021 (2nd Phase)

Location: Rayong



Compounds Plant

Period : Year 2015

Location: Rayong

Tsukishima Kikai Group (Overseas)



Subsidiaries in Overseas

TSK Engineering (Thailand) Co., Ltd.

Tsukishima Engineering Singapore Pte. Ltd.

Tsukishima Engineering Malaysia Sdn. Bhd.

TSK Engineering Taiwan Co., Ltd.

TSK Engineering China Co., Ltd.

BOKELA GmbH

Representative Offices In Overseas

Jakarta Representative Office

Hanoi Representative Office

Mumbai Liaison Office

Europe Representative Office