



Takasago

T.T.E. Engineering (M) Sdn. Bhd. 198001010378(64160K)

COMPANY PROFILE

A Subsidiary Of Takasago Thermal Engineering Co., Ltd

高砂熱学工業

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COMPANY OVERVIEW

Providing Solutions To Contribute Professionally To Global Environmental Conservation.

COMPANY NAME	T.T.E. Engineering (M) Sdn. Bhd.
DATE ESTABLISHED	11th November, 1980
PJ HEAD OFFICE	Lot No 01-7,7th Floor, Menara Symphony, No 5, Jalan Prof. Khoo Kay Kim, Section 13, 46200, Petaling Jaya, Selangor Darul Ehsan.
SITE OFFICES	Kulim, Penang, Batu Kawan, Melaka, Johor Bahru
NUMBER OF EMPLOYEES	> 150



**Engineering Excellence Rooted In Japanese Innovation,
Built For Malaysia**

ABOUT COMPANY BACKGROUND



T.T.E. Engineering (M) Sdn. Bhd. is established in 1980 in Malaysia. The company is involved in project execution, supply, installation, maintenance & other related works for industrial heating, ventilation, air-conditioning (HVAC), electrical supply system, utility process and cleanroom systems.

Its parent Company, Takasago Thermal Engineering Co. Ltd. Japan has shared and instilled its over 100 years of experiences and technologies in the industry to cater to the needs of engineering expertise in Malaysia.

T.T.E. Engineering (M) Sdn. Bhd. incorporates Japanese ways of productive work styles, management and design thinking into the company operation.

The company has more than 100 engineers as of today and is part of Takasago Thermal Engineering Co. Ltd.'s worldwide network with full back-up measures. Our experienced engineers play a major and important role in every engineering projects.

T.T.E. Engineering (M) Sdn. Bhd. is a registered grade G7 company under the Construction Industry Development Board of Malaysia (CIDB) and MS ISO 9001:2015 certified company since 1996.

SERVICES: CLEANROOM SYSTEM

Service Detail:

- ✓ Ceiling System
- ✓ Partition System
- ✓ Raised Floor System
- ✓ Flooring
- ✓ Painting
- ✓ Steel Structure
- ✓ Design & Build Cleanroom System
- ✓ Industrial Cleanroom
- ✓ Biological Cleanroom
- ✓ Waffle Table System
- ✓ Anti-Static / ESD Finishing

Application:

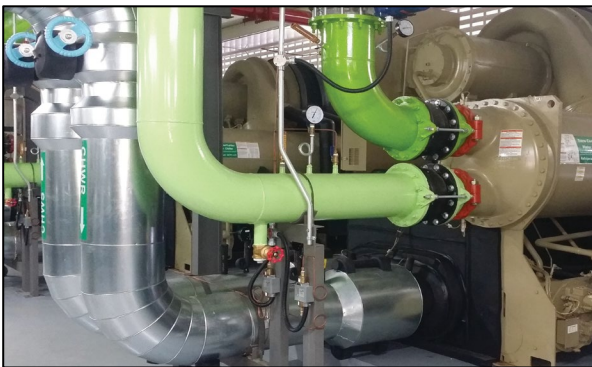


SERVICES: HVAC SYSTEM

Service Detail:

- ✓ Heating, Ventilation & Air-Conditioning System
- ✓ Air Cooled System
- ✓ Water Cooled System
- ✓ Chilled Water System
- ✓ Fan Filter Unit System
- ✓ Make-up Air Handling System
- ✓ Dry Coil System
- ✓ Air Washer System
- ✓ Primary & Secondary AHU System
- ✓ Heater System
- ✓ SWIT System (localised cooling)
- ✓ HEPA Filter System

Application:



SERVICES: PROCESS UTILITY SYSTEM

Service Detail:

- ✔ Process Cooling Water System
- ✔ Process Exhaust System
- ✔ Process Vacuum System
- ✔ Compressed Dry Air System
- ✔ House Vacuum Cleaning System
- ✔ Process Drain System
- ✔ Bulk Gas Supply System
- ✔ Special Gas Supply System
- ✔ Chemical Piping System
- ✔ DI Water Piping System
- ✔ Scrubber System
- ✔ Dust Collector System

Application:



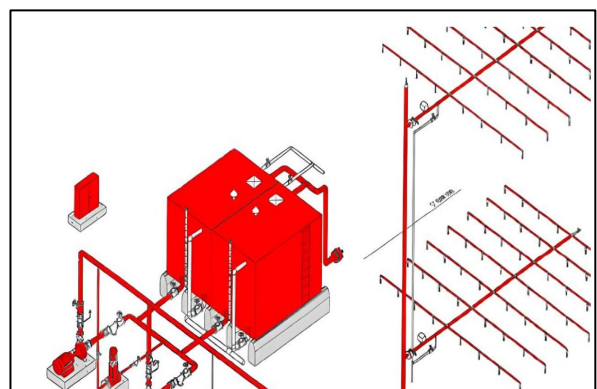
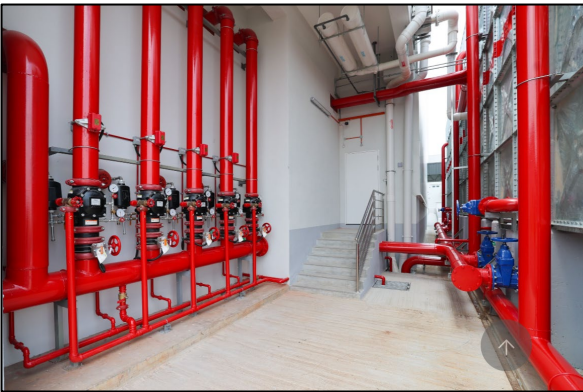
SERVICES

FIRE-FIGHTING SYSTEM

Service Detail:

- ✓ Conventional
- ✓ Addressable
- ✓ Sprinkler System
- ✓ Fire Alarm System
- ✓ Hose reel System
- ✓ Dry Riser System
- ✓ Smoke Detection System
- ✓ Heat Detection System
- ✓ Highly Sensitive Smoke Detection System
- ✓ Fire Suppression System
- ✓ In Rack Sprinkler

Application:



SERVICES

SANITARY & PLUMBING SYSTEM

Service Detail:

- ✔ City Water and Drinking Water
- ✔ Oil Separator
- ✔ Soil & Waste Water System

Application:



SERVICES ELECTRICAL SYSTEM

Service Detail:

- ✔ HT System
- ✔ ELV, LV System
- ✔ Lightning Protection System
- ✔ Equipment Grounding System
- ✔ Emergency Source System
- ✔ ESD System

Application:



SERVICES

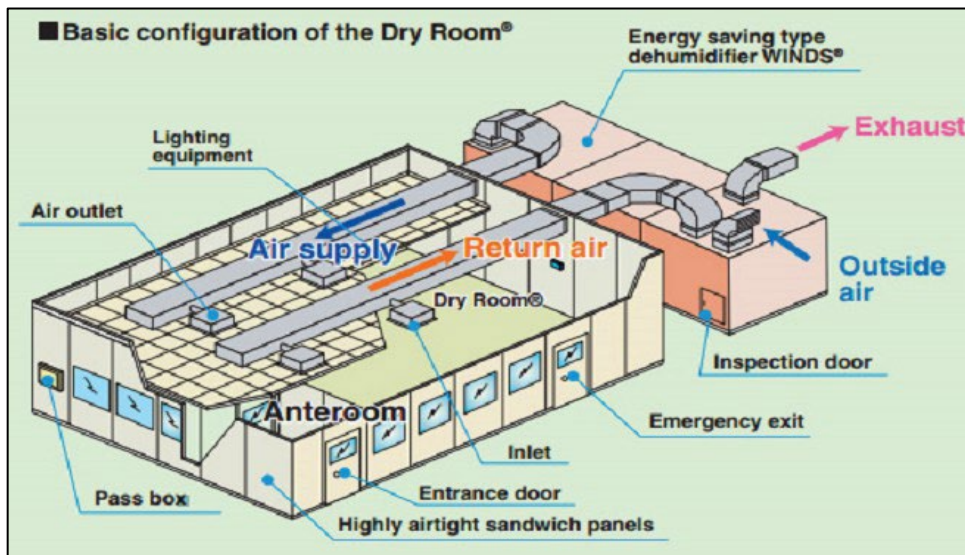
DRY ROOM SYSTEM

Service Detail:

Achieving reasonable low cost and energy efficient Dry Room with appropriate device configuration and optimal operational control.

Moisture in the air is an impediment for the manufacturing processes of the rapidly increasing rechargeable lithium ion batteries and organic EL. The manufacturing is performed in a Dry Room, which the moisture in the air is removed in a controlled low dew point temperature around -40°C to -70°C .

Application:



SERVICES

BUILDING CONSTRUCTION

Service Detail:

- ✓ Civil & Structural Works
- ✓ External Work
- ✓ Architectural Works

Application:



SERVICES

SWIT SYSTEM

Service Detail:

It is energy saving air conditioning system using swirl flow induction type air supply unit (SWIT).

Specialty for SWIT —Swirling Induction Type HVAC system—

Specialty

- Comfortable / Improve working environment
- Small Space / Flexibility
- Reduction for Cost and Environmental Load

Conventional Air Conditioning system

Cooling
Mixing of Hot air

Heating
Staying of Cold air

Make use of swirling, reduced installation space to half (Compared with displacement ventilation that is commonly used)

33°C Dirty Air

18°C Fresh Cooling Air

26°C

Not much draft unpleasantness warm air circulator

Feature of SWIT Compact of displacement ventilation blow out unit

The induction volume nearby the blow out outlet becomes bigger by having a lot of swirling. The blow out outlet can be made to compact, the installation surface area is reduced to less than half.

Face perforated plate

Induct ion

Blow out

Blow out surface area 1/3

Installation area 1/2

Swirling guide vane in air supply unit (see)

Note) Swirling guide vane is being fixed.

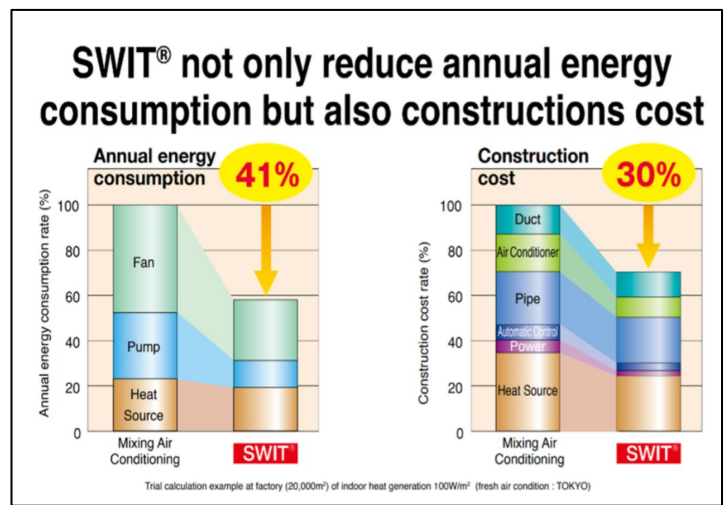
Air in residence area slowly circulates by induction.

Height of flow direction

Displacement ventilation

Height of flow direction

For displacement ventilation, only the air near the basement circulates.



SERVICES

SOLAR PANEL SYSTEM

Service Detail:

- ✓ Solar Panel System

Application:




COMPANY POLICY

Basic Policy on Safety and Health

The Company places safety as the top priority in carrying out all business tasks, and we ensure the appropriate safety and health of all employees under the basic approach of “The employees working for Takasago Thermal Engineering and their families must never suffer from accidents at construction sites.”

1. Make efforts to be considerate of others.
2. Be more danger aware.
3. Know the safety measures well.
4. Take safety seriously.



Tan Seng Teck (Mr.)
Managing Director
T.T.E. Engineering (M) Sdn. Bhd.
Date: 1st April 2025



T.T.E. Engineering (M) Sdn. Bhd.

Design on April 2025

Basic Environmental Policy

As an Environment-Creator, we strive to provide environmentally friendly technologies and services through collaboration with all stakeholders.

1. We contribute to the realization of a decarbonized, recycle-based society by promoting the efficient use of energy and resources.
2. We work to achieve efficient, optimal spatial environments through such efforts as actively deploying energy-saving technologies and optimizing building operations.
3. We strive to create new value through proactive research and development in resource recycling, energy value chains, and other areas.
4. We strive for biodiversity through initiatives to conserve water and forest resources.
5. Through the above, we promote efforts to address climate-related issues.



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Managing Director
T.T.E. Engineering (M) Sdn. Bhd.
Date: 1st April 2025

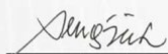


T.T.E. Engineering (M) Sdn. Bhd.

Design on April 2025

Basic Policy on Quality

1. We will strive to understand our customers' needs, and to provide optimal quality that will contribute to the corporate activities of customers.
2. We will work on consistently providing quality that exceeds customers' expectations.
3. We will advance research and development, and provide superior quality.
4. We will continuously provide services throughout the lifecycle of construction equipment.
5. So that we can move forward with these initiatives, we will set up a system of quality control and strive to continuously maintain and improve quality.



Tan Seng Teck (Mr.)
Managing Director
T.T.E. Engineering (M) Sdn. Bhd.
Date: 1st April 2025



T.T.E. Engineering (M) Sdn. Bhd.

Design on April 2025

Takasago Thermal Engineering Group Action Guidelines

1. Compliance with regulations and internal rules and behavior in line with ethical norms.
2. Thorough implementation of proper accounting processes and protection of company property.
3. Promoting fair, safe and healthy working environments.
4. Maintaining safety at construction sites and maintaining and improving quality.
5. Promotion of appropriate information management and information disclosure.
6. Maintaining appropriate relationships with customers.
7. Maintaining a fair competitive relationship with other peers in the same industry.
8. Establishing appropriate relationships with cooperative companies.
9. Consideration for social responsibility, contribution to society, and the global environment.
10. Rejecting all relationships with anti-social forces and organizations.



Tan Seng Teck (Mr.)
Managing Director
T.T.E. Engineering (M) Sdn. Bhd.
Date: 1st April 2025



T.T.E. Engineering (M) Sdn. Bhd.

Design on April 2025

QUALITY ASSURANCE

Quality Management System

Our principles of Quality Management are as follow:

- 1) Annual Policy and Plan Development**
 - i. Verify management and operational systems.
 - ii. Identify potential risk.
- 2) Implementation and Training**
 - i. Gather, share and escalate incident information.
 - ii. Implement measures.
- 3) Check and Correct**
 - i. Identify problems and causes.
 - ii. Devise preventive measures.
 - iii. Evaluate and analyse incidents.
- 4) Management Review**
 - i. Evaluate status.
 - ii. Fix the system and structure.

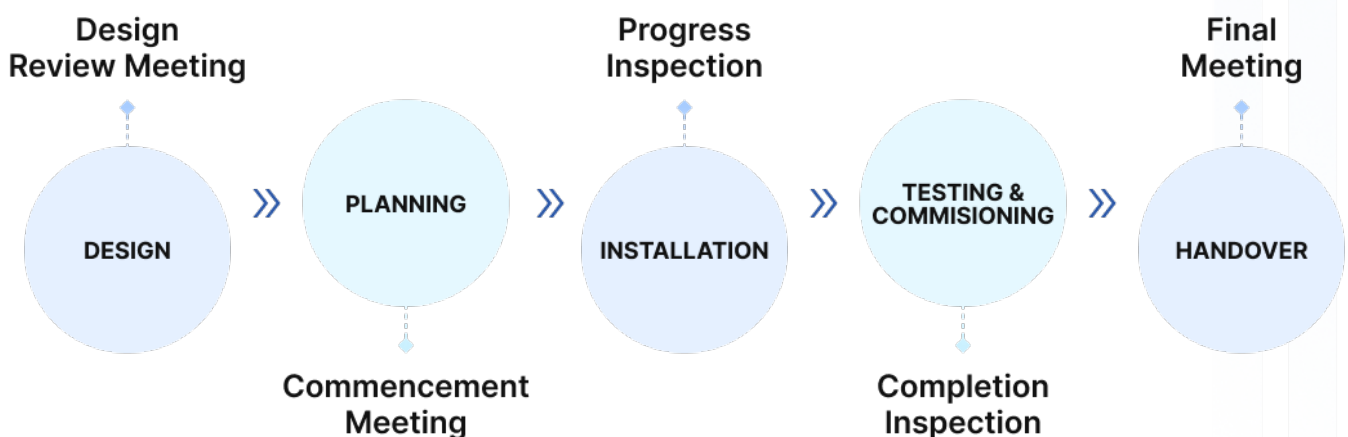
1
Excellent
Quality

2
On Time
Delivery

3
Customer
Satisfaction

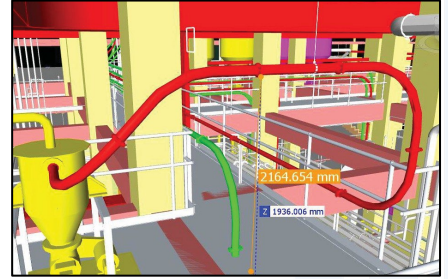
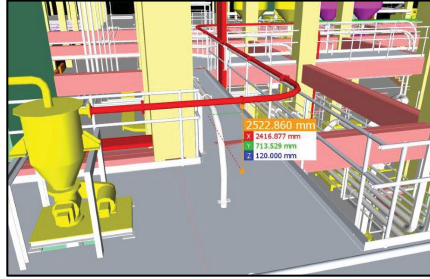
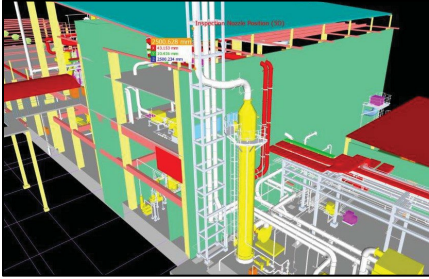
Implementation of Quality Control System

We utilize an internal quality control system to ensure quality of works are maintained throughout the duration of the project.

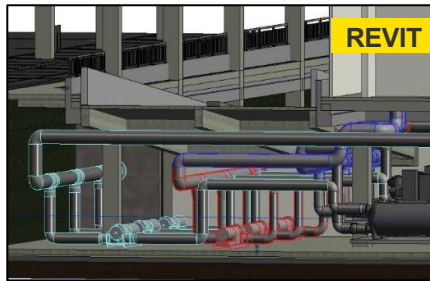
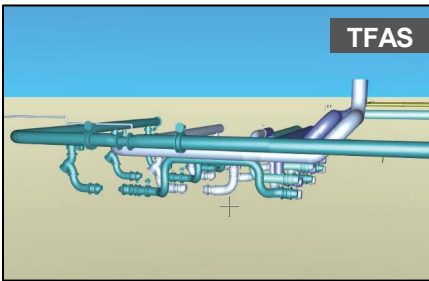


ENGINEERING ABILITIES

3D Simulation



Comparison of 3D Drawing



Comparison of 3D Drawing



STRENGTH



T.T.E. Engineering (M) Sdn. Bhd. is also committed to providing high quality of services in ensuring all projects are completed successfully and meets the highest standards of safety and quality assurance.

1. Quality Assurance - QA / QC Team

- Regular work progress checks.

2. Excellent Support

- Branches located over major cities across the country.
- More than 100 experienced local engineers.



3. Full Support

- Full support is also provided from our Japan Headquarters and overseas branches.
- Support provided across all Asian countries.

4. Good Track Record and Establishment

- Repeated customers.
- We have over 40 years establishment in Malaysia.

AWARDS AND CERTIFICATIONS



CIDB – Grade, Categories and Specialization

- G7 B04 Building Construction Works
- G7 CE21 Construction of Civil Engineering
- G7 M01 Air Conditioning & Ventilation System
- G7 M15 Various Mechanical Equipment



Quality Management System (ISO 9001:2015)

- Design, Installation and Maintenance of Clean Room
- Systems, General Air-Conditioning, Ventilation and Exhaust Systems and Utilities



Quality Management System (ISO 9001:2015)

- IQNet and SIRIM QAS International Certificate



Energy Commission Registration (ESCO)

AWARDS AND CERTIFICATIONS



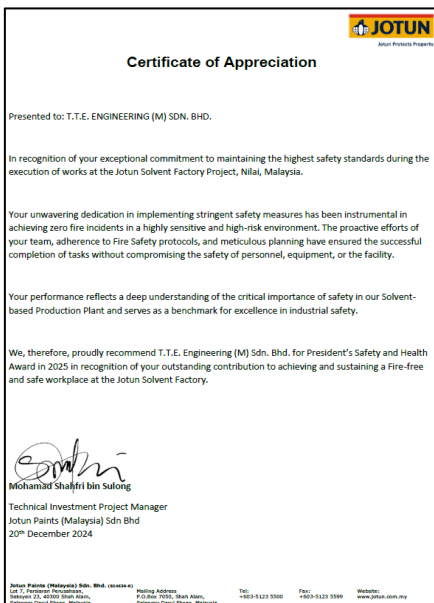
**5 Stars Achievement
In CIDB Safety And
Health Evaluation**



**5 Stars Achievement
In CIDB Safety And
Health Evaluation**



**2.5 Million Safe Man Hours And Zero
Lost Time Injury Achievement**



**Safety Appreciation
From Client**



**Outstanding Support
Appreciation From Client**

Project Reference

2020

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
Infineon Technology	Melaka	HVAC	31,400 M ²
Fuji Electric	Kulim	HVAC, Clean Room	15,000 M ²

2021

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
Intel Technology	Penang	Mechanical, Electrical, Clean Room, Utilities	12,400 M ²
Yokowo Electronics	Kulim	Mechanical, Electrical, Interior Works	260 M ²
Ibiden Electronics Malaysia	Penang	Mechanical, Electrical, Utilities, Clean Room	5,800 M ²
Osram Opto Semiconductors	Penang	Mechanical, Electrical, Utilities, Clean Room	3,000 M ²
Fuji Electric	Kulim	Mechanical, Electrical, Utilities, Clean Room	13,000 M ²
Daiwa House	Selangor	Cold Room	3,200 M ²

Project Reference

2022

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
Epson Malaysia	Selangor	Mechanical, Electrical	22,430 M ²
Intel Technology	Penang	Electrical, Utilities	-
Ibiden Electronics Malaysia	Penang	Machiine Hook Up Works	-
Fuji Electric	Kulim	Mechanical, Electrical, Utilities, Clean Room	1,860 M ²
Biocon	Johor	Interior Works	2,100 M ²

2023

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
Epson Malaysia	Selangor	Mechanical, Electrical	11,000 M ²
Intel Technology	Penang	Electrical, Utilities	22,000 M ²
Fuji Electric	Kulim	Mechanical, Electrical, Utilities, Clean Room	12,900 M ²
Biocon	Johor	Interior Works	3,300 M ²
CKD	Kulim	Mechanical, Electrical, Utilities, Clean Room	1810 M ²

Project Reference

2024

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
LAM Research (Sepang)	Selangor	Mechanical, Electrical, Fire Fighting	28,200 M ²
Intel Technology	Penang/Kulim	Electrical, Utilities	22,000 M ²
Fuji Electric	Kulim	Mechanical, Electrical	12,910 M ²
Japan Embassy	Selangor	Mechanical, Electrical	2,800 M ²
Fuji Logistic	Kulim	Mechanical, Electrical, Sanitary & Plumbing, Civil & Structural	20,100 M ²
LAM Research (Kulim)	Kulim	Mechanical, Electrical, Utilities	48,600 M ²
Jotun	Selangor	Mechanical, Electrical, Utilities	220 M ²
Smith & Nephew	Penang	Mechanical, Electrical, Utilities	160 M ²
Denso	Selangor	Mechanical, Electrical, Utilities, Civil & Structural	2750 M ²

Project Reference

2025

PROJECTS	LOCATION	SCOPE OF WORKS	CONSTRUCTION AREA
Monin Asia KL Sdn Bhd	Selangor	Mechanical, Electrical, Fire Fighting, Sanitary, Plumbing Civil & Structural	14,835 M ²
Intel Technology	Penang/Kulim	Mechanical, Electrical, Utilities, Civil & Structural	27,200 M ²
Ibiden Electronics Malaysia	Penang	Machine Hook Up Works	-
Japan Embassy	Selangor	Mechanical, Electrical	830 M ²
Ajinomoto Malaysia	Negeri Sembilan	Mechanical, Electrical, Sanitary & Plumbing, Civil & Structural	1400 M ²
Chitose Malaysia	Sarawak	Electrical & Instrument	600 M ²

PROJECT REFERENCES



Warehouse At Kulim Hi-Tech Park, Kedah.

SCOPE

- Building Construction
- Mechanical
- Electrical
- Fire Protection
- Sanitary
- Plumbing Works

CONSTRUCTION PERIOD

2024 - 2025

CONSTRUCTION AREA

20,100 M²



Semiconductor Factory At Kulim Hi-Tech Park, Kedah.

SCOPE

- Clean Room
- Interior Works
- Mechanical
- Electrical
- Process Utility Works

CONSTRUCTION PERIOD

2021 - 2024

CONSTRUCTION AREA

28,240 M²



PCB Factory At Batu Kawan, Penang.

SCOPE

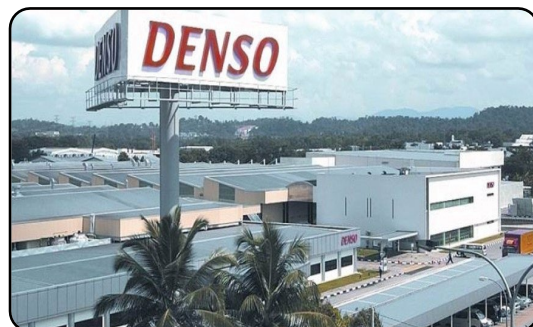
- Clean Room
- Interior Works
- Mechanical
- Electrical
- Process Utility Works

CONSTRUCTION PERIOD

2021 – 2022

CONSTRUCTION AREA

5,800 M²



Automotive Parts Factory At Bangi, Selangor, Malaysia.

SCOPE

- Building Construction
- Interior Works
- Mechanical
- Electrical
- Fire Protection
- Sanitary
- Plumbing Works

CONSTRUCTION PERIOD

2024 – 2026

CONSTRUCTION AREA

2,800 M²

PROJECT REFERENCES



Precision Components And Devices
At Bandar Sri Damansara, Kuala Lumpur.

SCOPE

- Mechanical
- Electrical System Upgrading Works

CONSTRUCTION PERIOD

2023 - 2024



Food And Beverage Factory At Bandar Enstek, Negeri Sembilan.

SCOPE

- Clean Room
- Mechanical
- Electrical
- Process Utility
- Fire Protection

CONSTRUCTION PERIOD

2019 - 2021

CONSTRUCTION AREA

28,240 M²

CSR



We conducted tree planting and reforestation in Kuching, Sarawak as part of our Corporate Social Responsibility as part of our collaboration with UNIMAS, Japan-Malaysia Association and Takasago.

The project started in January 2018. T.T.E. Engineering (M) Sdn. Bhd. have pledged to plant approximately 25,000 trees per year at the Takasago-Unimas Educational Forest in UNIMAS (Universiti Sarawak Malaysia) compound. The area will also serve as an educational, recreational and research purposes.

CSR MANAGEMENT (Socially Responsible Management)



SHAREHOLDERS & GENERAL PUBLIC

Fair and highly transparent management

- Corporate governance
- Compliance
- Internal control
- Risk management
- Information management



CUSTOMERS

Further improving customer satisfaction

- Increasing added values
- Increasing product quality
- Safety & hygiene
- Research and development



ENVIRONMENT & THE FUTURE

Contribution to environmental conservation

- Energy saving
- Reduction and management of industrial waste
- Green procurement
- Consideration for the ecosystem



EMPLOYEES

Realizing employee satisfaction

- Utilizing and nurturing human resources
- Work-life balance
- Respect for human rights
- Diversity
- Work environment



LOCAL COMMUNITIES

Harmony with society

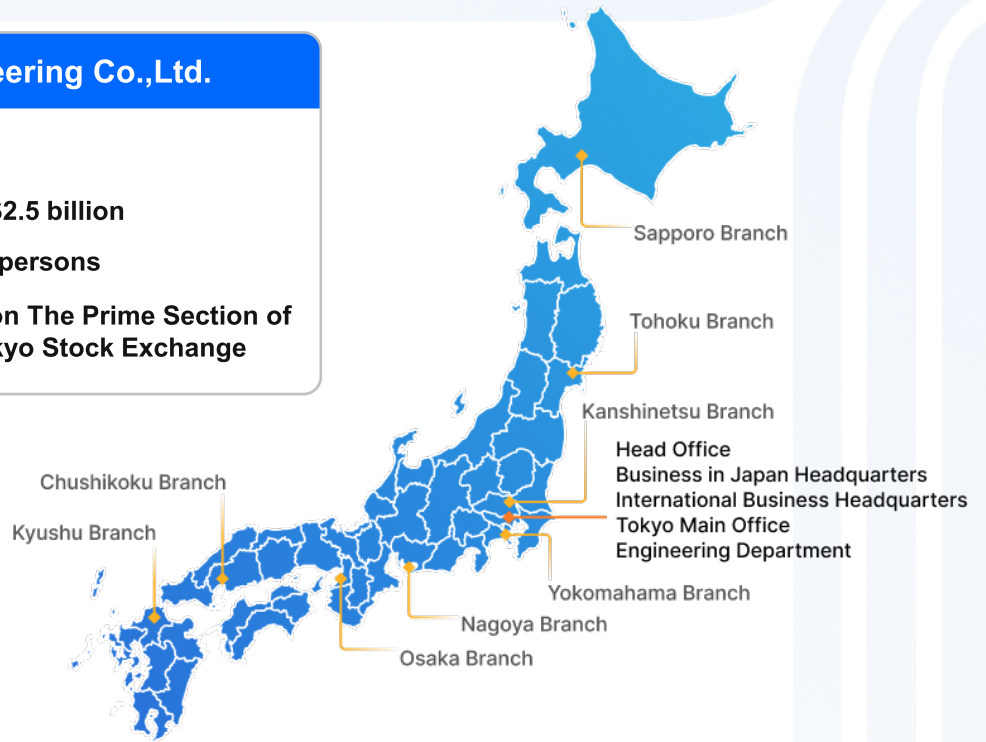
- Social contribution
- Promotion of culture
- Local environment
- Information disclosure



COMPANY HEAD QUARTERS

Takasago Thermal Engineering Co.,Ltd.

YEAR ESTABLISHED 1923
YEARLY TURNOVER > USD \$2.5 billion
DIRECT EMPLOYEES > 2,100 persons
CURRENT STATUS Listed on The Prime Section of The Tokyo Stock Exchange



The concept is “A place of growth where diverse people gather and develop their dreams, a place of creation that connects knowledge and wisdom inside and outside the company, a place of dissemination to expand Takasago's technology to the world”.



*Takasago Innovation Center in Japan

International Business Network



- 1 Takasago Constructors and Engineers (China) Co., Ltd.
- 2 Takasago Singapore Pte. Ltd.
- 3 Takasago Thermal Engineering (Hong Kong) Co., Ltd.
- 4 Takasago Vietnam Co., Ltd.
- 5 Thai Takasago Co.,Ltd.
- 6 T.T.E. Engineering (Malaysia) Sdn. Bhd.
- 7 Takasago Engineering Mexico, S.A. de C.V.
- 8 Integrated Cleanroom Technologies Pvt. Ltd.
- 9 Takasago Thermal Engineering Co., Ltd. Myanmar Branch Office
- 10 PT. Takasago Thermal Engineering

MALAYSIA NETWORK



1

HEAD OFFICE / PETALING JAYA OFFICE

Lot No 01-7,7th Floor, Menara
Symphony, No 5,
Jalan Prof Khoo Kay Kim,
Seksyen 13,46200 Petaling Jaya,
Selangor Darul Ehsan, Malaysia.

Tel: +603-7955 5972

2

MELAKA OFFICE

No.1, 1-1, Jalan Komersial
IAN 2, Industri Angkasa Nuri,
76100 Durian Tunggal,
Melaka.

Tel: +606-334 7957

3

JOHOR BAHRU OFFICE

No. 2-01 & 2-02, Jalan Molek
1/10, Taman Molek, 81100
Johor Bahru, Johor,
Malaysia.

Tel: +607-354 1139

4

PENANG OFFICE

02-16, Udini Square, Lebuhraya
Tunku Kudin 3, 11700
Gelugor, Penang.

Tel: +604-608 6430

5

KULIM OFFICE

No. 35, Tingkat Bawah & Tingkat
Satu, Persiaran 7, Kulim Avenue,
Kulim Hi Tech Park, 09000 Kulim,
Kedah Darul Aman.

Tel: +604-492 4426

6

BATU KAWAN OFFICE

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