

JEC

ENGINEERING SOLUTIONS

—
FOR THE NEXT 100 YEARS

ASIA'S LEADING E&M SPECIALIST

SCALED - DIVERSE - PIONEERING

From the first commercial air-conditioning system in Hong Kong in 1931 to the world's largest operable wall system in Singapore in 2019 and our recent ground-breaking new smart automated laundry system in North Lantau, JEC Group has contributed to the development and prosperity of Hong Kong and Asia for more than 100 years.

With the mission of engineering a better Asia, JEC today is a leading provider of innovative engineering services, products & sourcing, and

contracting. Our depth and range of engineering capabilities covers E&M contracting, healthcare, maintenance & renovation, data centres, building products and more.

As a leader in E&M engineering solutions, JEC is now poised to take the industry into the 22nd century and beyond.

Serving Asia since 1923

A continuous presence in Asia for over 100 years	Talented engineers and professionals 4000+	A major presence in 7 operating regions
Diverse operations in 8 business sectors	Member of Jardine Matheson	Joint ventures with Trane in Thailand and Hong Kong, & Krueger Engineering Group in Hong Kong, Macau and Mainland China



Unrivalled expertise in engineering, sourcing and contracting

- Electrical & Mechanical Contracting
- Healthcare
- Maintenance & Renovation
- Building Equipment & Products
- Data Centres
- In-house Digital Building Management Solutions (JEDI)



Drilling Robot

OUR FOCUS ON INNOVATION

Harnessing Technology for Greater Efficiency: Our dedicated in-house BIM team employs state-of-the-art automation and 4D simulations to ensure optimal construction workflows. Through our cutting-edge approach to MiMEP (MultiTrade Integrated Mechanical, Electrical, and Plumbing), we coordinate complex E&M projects seamlessly, more efficiently and with superior quality.

Setting New Standards in Technological Integration: We are transforming the E&M engineering landscape with innovative solutions such as a smart automated laundry system, handheld 3D laser scanners, self-navigating robots and augmented reality for managing building components.



OUR COMMITMENT TO SUSTAINABILITY

We provide sustainable process designs and eco-friendly products that help our customers attain their ESG targets, in alignment with our own ESG ambitions.

JEC is among the few local engineering companies to receive approval from the Science Based Targets initiative (SBTi) for our near-term science-based emissions reduction targets.

JEC's near-term science-based target commitments

To reduce absolute scope 1 and 2 emissions

54.6% ↓

by 2033 from a 2023 base year.*

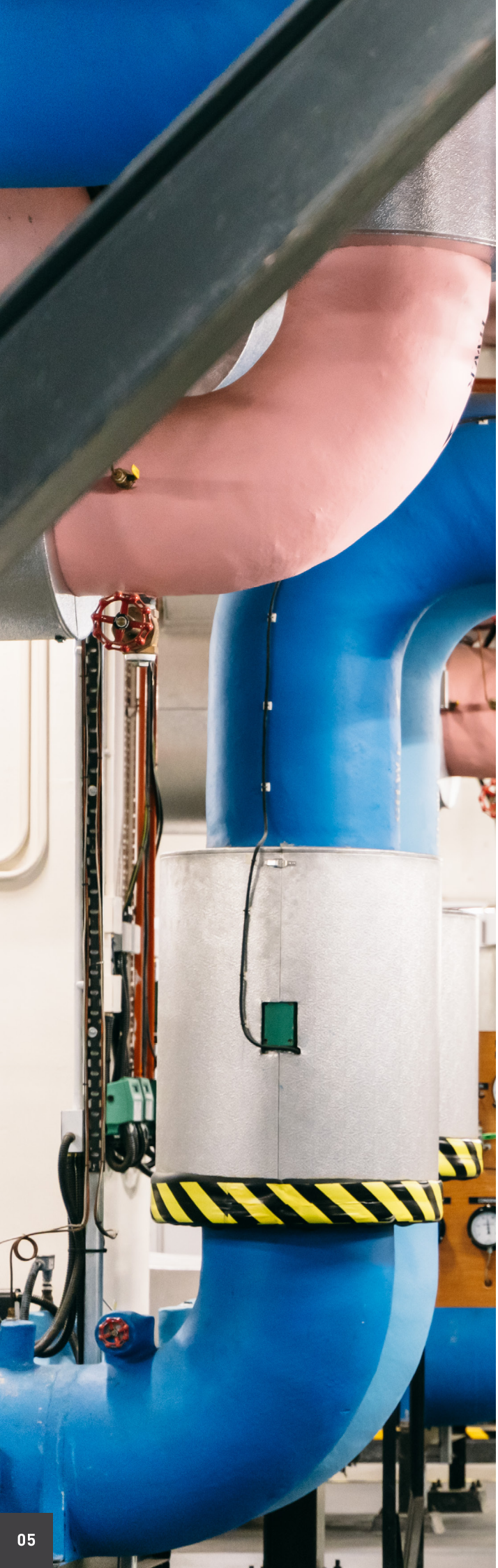
Our scope 1 & 2 target ambition is in line with a 1.5c° trajectory.

To reduce absolute scope 3 GHG emissions from use of sold products

32.5% ↓

by 2033 from a 2022 base year.*

*The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks.

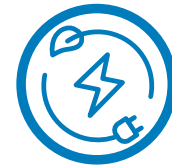


JEDI SMART DIGITAL PLATFORM

To optimise building energy management, we have developed the Jardine Engineering Digital Insights (JEDI) smart platform. It takes advantage of the power of advanced data management and analytics, including AI and machine learning, to help clients reduce their energy bills and carbon footprints.

Core product features include energy optimisation, fault detection and diagnosis, as well as an energy dashboard.

How JEDI benefited customers in 2023



**More than
11.6 million
kWh** of energy
saved



**Over
7.5 million
kg** of carbon
emissions reduced

For more information on how JEDI can support your sustainability journey, please scan the QR code.



A TOTAL E&M SOLUTION

PROCESS ENGINEERING WITH IMPACT

Our Competitive Edge

We have a dedicated design team that develops innovative solutions for clients in the environmental, energy & renewable energy, infrastructure and transportation sectors.



Highlights



30+ years
of experience
in E&M projects



Improved the baggage handling system efficiency
at Hong Kong International Airport, the most extensive upgrade of its kind

Designed and built Hong Kong's **largest fully mechanized slaughterhouse**



First contractor to adopt Thermal Hydrolysis Plant (THP) and Anammox
process for sewage treatment in Hong Kong



Design, build and operate the **first Pilot Biochar Production Plant (PBPP)** at EcoPark in Hong Kong



Installed the **first platform screen doors** in Hong Kong for MTR's Airport Express and Tung Chung Line

ENVIRONMENTAL INFRASTRUCTURE

In Hong Kong, we have laid a solid foundation for the city's environmental infrastructure and a greener future. Environmental projects undertaken by JEC include Hong Kong's first animal waste recycling plant and the city's first sewage plant located inside a cavern.

Major projects

- Shatin sewage treatment works
- Tai Po sewage treatment works
- Harbour Area Treatment Scheme (HATS)
- Shek Wu Hui sewage treatment works
- Tseung Kwan O Desalination Plant
- Air purification system at T2 Tunnel
- Central Kowloon Route Tunnel

TSEUNG KWAN O DESALINATION PLANT

This first-of-its-kind project in Hong Kong was designed, built and operated by JEC utilising reverse osmosis technology to convert seawater into potable water. Much more energy-efficient than traditional methods, it will help to reduce the cost and carbon footprint of Hong Kong's future water supply. The first phase of the project is expected to satisfy around 5% of Hong Kong's total freshwater demand.



RENEWABLE ENERGY

We are contributing to a sustainable community with projects ranging from food waste and animal waste recycling and landfill gas treatment to solar and wind energy. Projects include O.PARK2 and the West New Territories Landfill in Hong Kong and the Bang Pakong Combined Cycle Plant in Thailand.

O.PARK 2

We designed, built and operated this waste-to-energy infrastructure project, which can treat up to 300 tonnes of food waste daily to produce environmentally-friendly biogas. It features anaerobic digestion process technology and the city's first food waste pretreatment process by adopting hammer mill technology.





INFRASTRUCTURE & TRANSPORTATION

We work closely with major infrastructure operators, such as airports, railways and cargo and courier hub operators, to provide best practice engineering solutions.

Major projects

- MTR underfloor wheel lathe (wheel reprofiling) integrated with civil works
- Advance technology for water filtration system at Ocean Park
- ASRS (Automated Storage and Retrieval System) and Airport Baggage Handling System projects to enhance workflow

HEALTHCARE ENGINEERING SOLUTIONS

THE PREFERRED HEALTHCARE SOLUTION

We deliver specialised healthcare and laboratory engineering systems to the highest standard. Our in-house team not only provides engineering design, supply and installation services but also ensures customers' operations and critical systems are always up and running reliably.



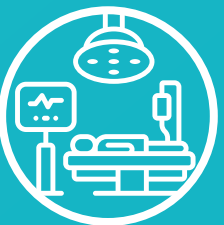
Highlights



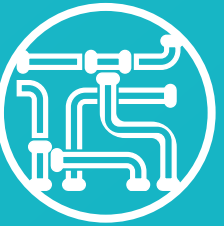
30+ years
of experience
in healthcare projects



**Over 20 medical
gas pipeline
systems**
in Hong Kong and Macau



**Over 270
operating theatres
& over 90
laboratories**
in Hong Kong and Macau



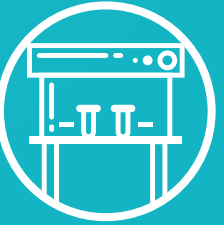
**Over 60
kilometres of
pneumatic tube**
for hospital transportation
systems in Hong Kong



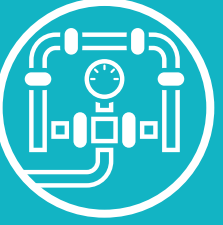
**World's largest Smart
Automated Laundry
System for Hospital
Authority** in Hong Kong



Medical gas system
maintenance services to
major private hospitals
in Hong Kong



Maintained **over
1,000 biological
safety cabinets**
in Hong Kong



**The largest medical
gas pipeline system**
in Macau

LANTAU HOSPITAL HONG KONG INFECTION CONTROL CENTRE

We designed, built, tested and commissioned medical gas pipeline system and isolation ward partition wall system to alleviate stress on hospitals during the COVID-19 pandemic. All project works, which included more than 800 isolation beds and ancillary facilities, were completed in just four months.



HONG KONG CHILDREN'S HOSPITAL

In this project, we designed, built, tested and commissioned medical gas pipeline system, operating theatres and pneumatic tube transportation system in the first paediatrics hospital in Hong Kong for treating and researching complex, uncommon illnesses afflicting children. Facilities include an integrated rehabilitation centre, operating theatres, laboratories and a hospital data centre.

KWONG WAH HOSPITAL REDEVELOPMENT PHASE 1

For the Kwong Wah Hospital redevelopment project, we installed medical gas pipeline system, radiation shielding and lead-lined doors to bring the hospital up to the latest standards of operational efficiency. Also featured are a 24-hour computerised tomography (CT) scan service and designated isolation areas for infection control.



TRANSMISSION ELECTRON MICROSCOPY (TEM) IMAGING LABORATORY

To accommodate HKUST's TEM machine, we built a laboratory with four TEM rooms and two preparation rooms — the first such facility in Hong Kong.



SPECIALISED OPERATIONS, MAINTENANCE & RENOVATION

ENSURING YOUR PROPERTIES PERFORM TO WORLD-CLASS STANDARDS

With one of the largest Operations and Maintenance technical workforces in the Hong Kong market, we serve clients ranging from property developers, financial institution and public utilities to the aviation industry. And we are consistently recognised for our resourcefulness and quickest responsive times.

We maintain commercial and other facilities to best-in-class standards, including electrical, heating, ventilation and air-conditioning systems, fire protection, security, building management and plumbing systems.

Highlights



Over 800
engineering and
field staff



24 / 7
hotline and
support services



24 / 7
onsite attendance
and technical
support



Designated service
mobile app
to boost efficiency



**Over 100 million
square feet**
of facilities in Asia



BUILDING EQUIPMENT AND PRODUCT OFFERINGS BETTER BUILDING PERFORMANCE THROUGH INNOVATION

In 1940, JEC became the first company to market fluorescent tubes and novel fittings. Today, as part of our comprehensive one-stop service, we provide a full range of high-quality E&M equipment and building products, including innovative MiMEP offerings, in Hong Kong and Macau.

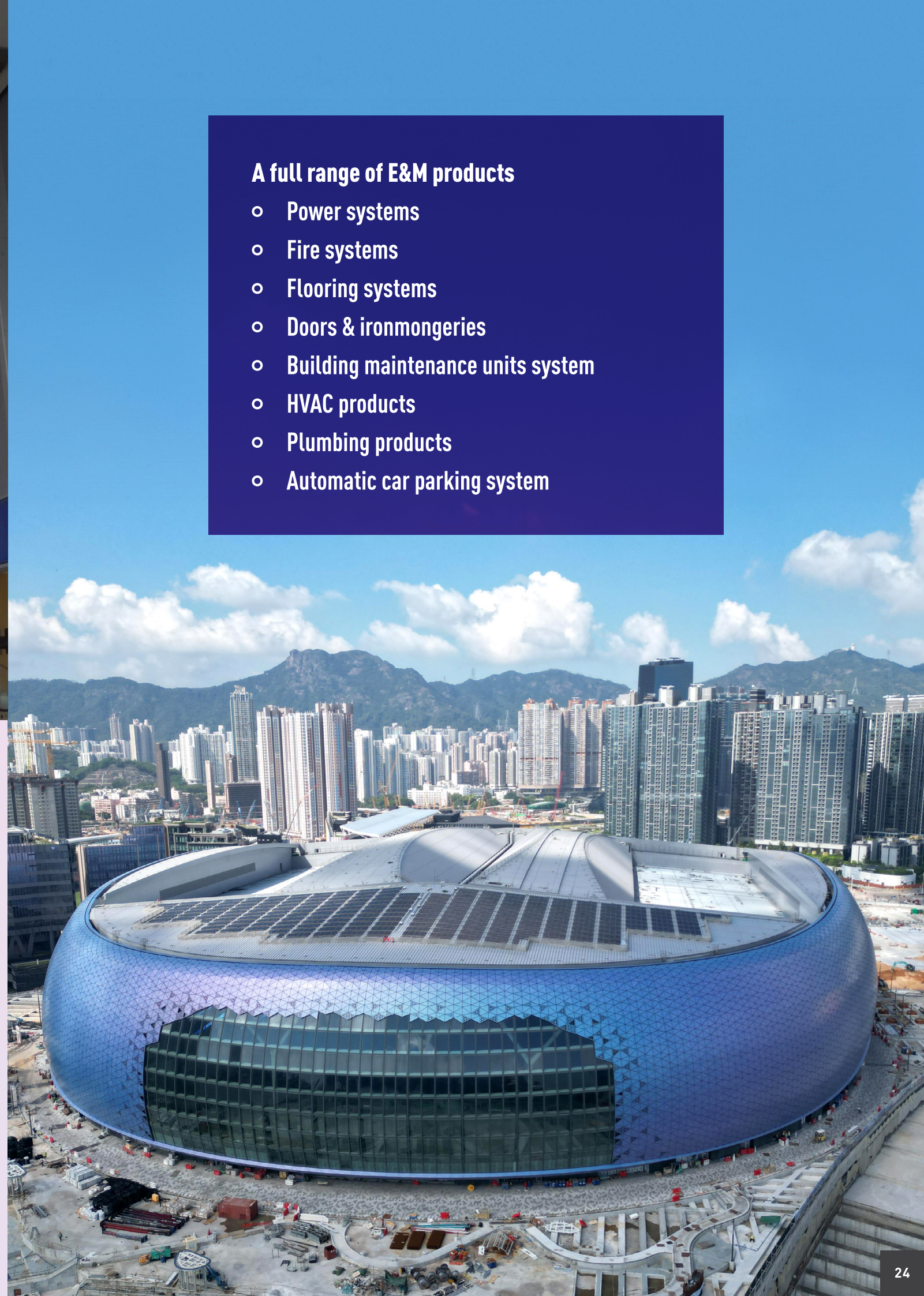
We also develop green building solutions (EV charging, automated parking) and help clients

achieve their sustainable energy, water and resource utilisation targets. Among our trusted partners is global power technology leader Cummins.

Our diverse and constantly expanding range of products caters to unique demands across sectors - from commercial to data centres, healthcare to education - ensuring we have a tailored solution to meet your specific needs.

A full range of E&M products

- Power systems
- Fire systems
- Flooring systems
- Doors & ironmongeries
- Building maintenance units system
- HVAC products
- Plumbing products
- Automatic car parking system



CUTTING-EDGE SOLUTIONS FOR A SUSTAINABLE FUTURE

JEC has partnered with leading companies to bring you the most advanced solutions for reducing your carbon footprint and meeting your ESG targets. Contact us today to learn how you can operate more sustainably towards a greener future.

CARBON NEUTRAL INTERIOR MIC (IMIC) SYSTEM

Our patented iMiC solution integrates modern architectural design with intelligent requirements, creating more efficient, flexible and sustainable low carbon spaces for clients.

- Over 600 preset room designs to choose from
- All modules prefabricated in factory
- Dust-free, non-toxic, and noise-free construction
- Modules can be disassembled and reassembled up to 15 times
- Carbon reduction reports and carbon-neutral certificates issued by RESET and Shanghai Environment and Energy Exchange

Case study : A 10,000 sq ft project



Carbon reduced by
0.4 tons/ m²



3D BIM renderings in
just one hour



Installations completed
in 3 days

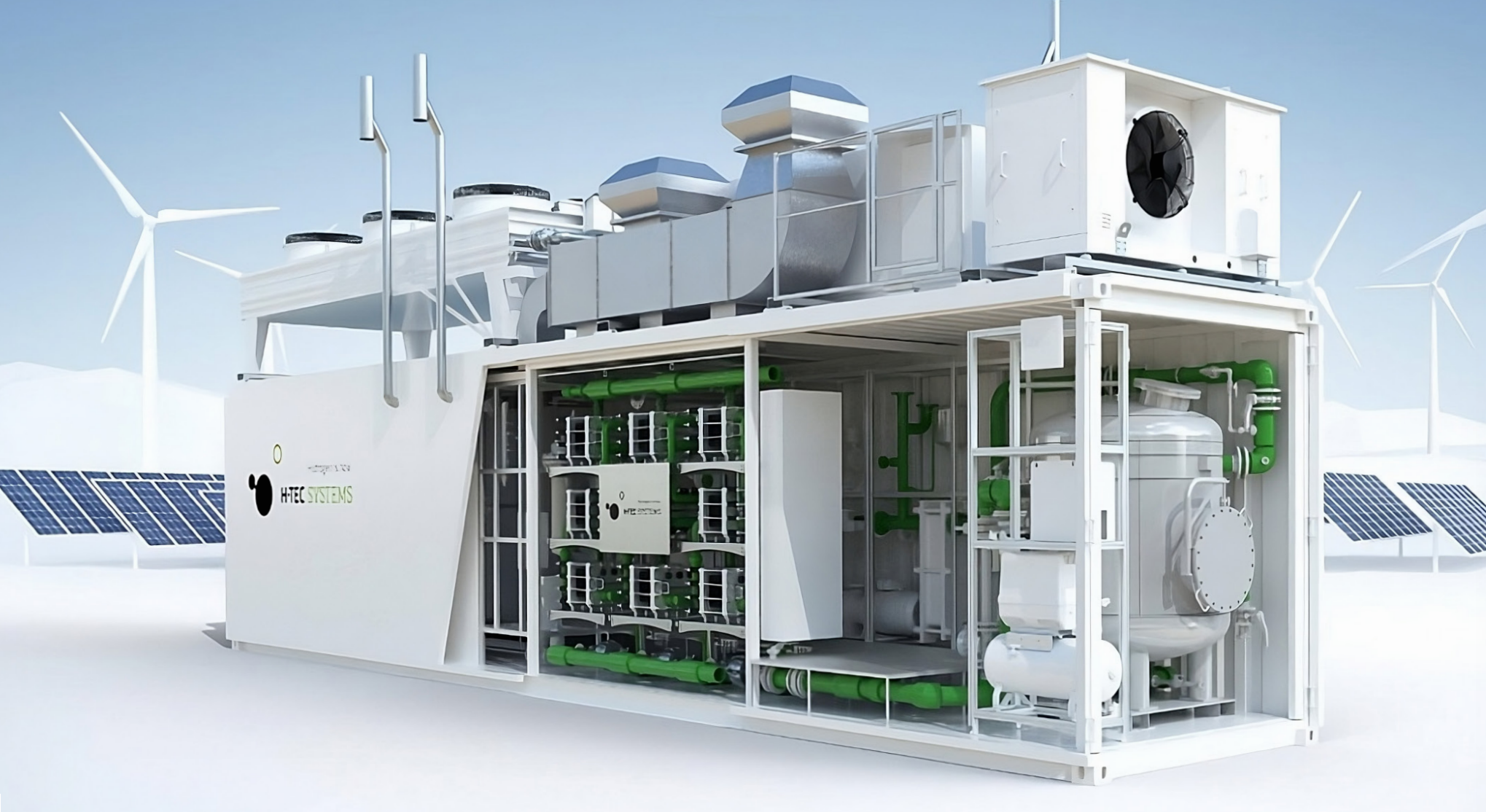


SMART-SAFE BMU ROBOTIC INTELLIGENCE

We provide game-changing façade maintenance services with gondola system with smart robot. It is safer and faster, especially for high rise façade cleaning.

- Nearly 100% façade coverage with precision cleaning
- No humans required at extreme heights (lower insurance)
- Minimise water use and enhance sustainable practices
- Typical jobs can be completed in 70% less time
- Lower long-term maintenance costs





GREEN HYDROGEN SOLUTION

You can now safely replace fossil fuels in most applications with carbon-free hydrogen, the renewable gas of the future.

- Zero carbon emissions
- Offer environmental benefits and cost advantages throughout their entire lifecycle
- Can be used for onsite generators to produce electricity
- Suitable for EV charging electric vehicles
- A greener option for public transport and cargo delivery

HEAT LINEAR LOW-EMISSION GENERATOR

Based on years of extensive R&D in aerospace engines, this new generator produces clean, efficient electricity using any type of fuel (hydrogen, biofuels, methane etc.)

- Ultra-low to zero emissions
- Generates electricity from 200kW up to multiple megawatts
- Quiet and compact size
- Low maintenance
- Applications: heavy duty trucks, buses, EV chargers, prime power for grid connections, landfill gas to electricity





DATA CENTRES

SHAPING THE FUTURE OF DIGITAL INFRASTRUCTURE

For over 50 years, our business arm – Chung Hing Engineers (CHE) – has been a trusted engineering partner for data centre service providers and enterprises in the region. As a leading specialist in data centre infrastructure construction, we deliver customised turnkey solutions that give our customers a robust and secure environment to cultivate technological advancements and continuous growth.

To address the surging demand for Cloud and AI services, CHE has fast tracked hyperscale data centre projects under stringent and evolving requirements without compromising our signature quality.

As a reliable strategic partner for data centre service providers and enterprises requiring state-of-the-art infrastructure, CHE draws on an extensive track record and dynamic approach to create bespoke, resilient and efficient solutions. These solutions power business scalability, drive innovation and help customers maintain their competitive edge in the swiftly evolving digital landscape. Furthermore, CHE's comprehensive facilities management with 24/7 emergency support by a dedicated data centre service team ensures smooth operational continuity and business resilience.

CHE offers infrastructure solutions and seamless integration across different systems:

- Power Supply Systems – Generator, Uninterruptible Power Supply, Battery, Static Transfer Switch, Busway, Power Distribution Units
- Cooling Systems – Chiller, CRAC/CRAH, Direct Liquid and Immersion Cooling
- Aisle Containment Systems
- Water Detection Systems
- Large-scale Fire Alarm & Gas-based Extinguishing Systems
- Data Centre Infrastructure Management (DCIM)
- Environmental Control & Building Monitoring Systems
- Building Information Modelling (BIM)

OUR ASIAN FOOTPRINT

OUTSIDE HONG KONG, JEC GROUP HAS A PRESENCE IN A GROWING NUMBER OF ASIAN MARKETS

PHILIPPINES: JARDINE DISTRIBUTION INC. (JDI)

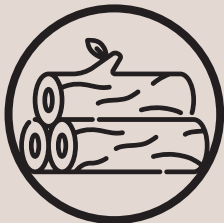
JDI markets and distributes high quality agricultural products and applied construction chemicals sourced from reputable manufacturers. All products meet industry standards and regulatory requirements, reassuring customers of their safety and effectiveness.

JDI has a well-established distribution network through its nationwide network of authorised distributors and dealers. All employees and customers receive training to ensure the safe and proper use of our products, with due consideration for the environment.

JDI website



Highlights



JDI has an estimated **90% market share** for its Solignum wood preservative



Leading market position for some of its insecticides and molluscicides



Over 1,000,000 farmers educated in the safe use of our products

Strategic partnerships

with leading companies such as Bayer, UPL and Koppers



JEC THAILAND

JEC Thailand offers a wide range of services in engineering and technology, sourcing and project management, with specialties in MEP contracting, technical services and energy & building technology.

Our MEP services meet the needs of a diverse range of clients, including commercial buildings (hotels, offices, shopping centres and hospitals), data centres, the pharmaceutical and food industries, industrial facilities and embassies.

With JEC Thailand's self-developed building automation system, clients can monitor and access their projects anytime, anywhere.

As an environmentally responsible company, JEC Thailand makes extensive use of prefabrication, modular construction and Building Information Modelling (BIM). These digital solutions enhance efficiency and help you manage energy use and waste more effectively.

JEC Thailand's
Facebook



Highlights



Over 50 clients
served in
the last 10 years

Over 90 years as the trusted
choice for clients who prioritises
engineering excellence in all projects



Workforce of over 666 staff
one of the largest MEP companies
in the country



One of the **first BIM adopters**
in Thailand's
MEP industry
(since 2017)

One of the **first local companies**
with expertise in prefabricated MEP
riser modules

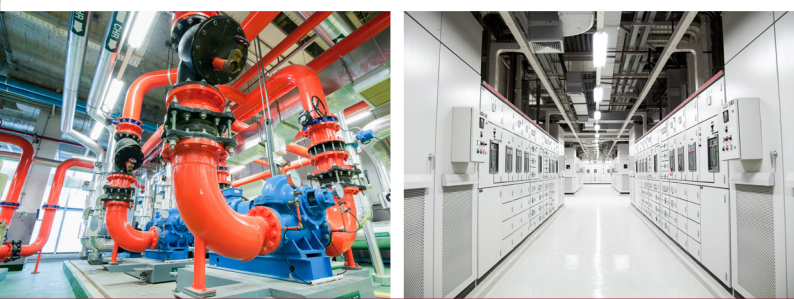


Company & professional certifications



BITEC BANGNA EXHIBITION HALL PHASE 2 & BHIRAJ OFFICE

- One of the largest chiller plants for cooling large exhibition & office spaces



DUSIT CENTRAL PARK HOTEL

- The legendary Dusit Thani Bangkok, flagship hotel of Dusit International
- Innovative prefabricated risers reduced system installation time for all guest room risers from the 9th to 38th floors



MANGO DATA CENTER

- JECT's first global data centres project
- One of the largest data centres in Thailand with an 8 MW IT load





COMMERCIAL SPACE AT TERMINAL 1 & SATELLITE 1 BUILDINGS, SUARNABHUMI AIRPORT

- Operation and Maintenance of HVAC, sanitary and ventilation systems
- Operation of kitchen exhaust fans and air conditioning systems, 24/7, using Predictive Maintenance (PDM) for zero breakdowns

BUMRUNGRAD INTERNATIONAL HOSPITAL

- Carried out renovation works while allowing other floors in the hospital to remain fully operational and accessible
- Main pipe systems converted from vertical to horizontal orientation



PARK SILOM

- A LEED Gold certified premium office
- Sustainable construction to meet ESG targets
- Smart building systems controlled & monitored in real-time via a mobile app
- Operate building management system and lighting and VAV systems



JEC SINGAPORE

JEC Singapore offers facility management and technical support services, including MEP contracting, additions and alterations (A&A), facility management and maintenance.

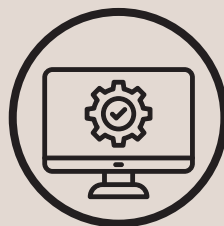
As a specialist in Air-Conditioning & Mechanical Ventilation (ACMV), JECS acquired Thermal Pte Ltd, strengthening its ability to deliver high-quality ACMV solutions so that clients and their staff can enjoy comfortable and sustainable indoor environments.

To help clients meet their sustainability ambitions, JECS supports their applications for Green Mark Building standards.

Highlight



Certified Facilities Management Company (CFMC)
Gold Plus certified



Designed, supplied and installed **the world's largest operable partition wall system** at Marina Bay Sands



Largest facilities manager of Grade A Commercial Office buildings in Singapore's Central Business District



BizSAFE **Star certification**



The Royal Society for the Prevention of Accidents (RoSPA) **Health & Safety Gold award certified**

Singapore Green Building Council (SGBC)
certified for Energy Performance Contracting and Air-Conditioning System Maintenance



NATIONAL SKIN CENTRE

- ACMV and Building Management Systems
- Central Water-cooled Chiller Plant



MARINA BAY FINANCIAL CENTRE

- IoT (Internet of Things) Platform
- M&E maintenance work including ACMV, Plumbing & Sanitary

LOOKING FORWARD TO A BRIGHTER FUTURE

At Jardine Engineering Corporation, our commitment to innovation through technology allows us to deliver exceptional value and a wide range of services to our clients. As we expand our network across Asia and Mainland China, we will remain focused on strategic growth through mergers and acquisitions while continuously enhancing our capabilities. At the same time, we will keep sustainable development at the core of our operations, ensuring that we not only meet the needs of today but also contribute to a better future for the communities we serve.

Contact us today

Wherever you are, whatever services or products you need, please contact our experts and we will be happy to assist you.

